The University of Mississippi Medical Center (UMMC) Bulletin presents information, which at the time of publication, accurately describes the current curricula and the regulations and requirements of the Medical Center. **The Bulletin is updated at the beginning of each academic session, three times a year.** THIS CATALOG IS NEITHER A CONTRACT NOR AN OFFER TO CONTRACT.

All statements in this publication are statements of the present policies only and are subject to change at any time by proper authority to be effective whenever determined by UMMC. The right to change any provision, offering, or requirement may occur within a student’s period of study at UMMC. The University of Mississippi Medical Center reserves the right to require a student to withdraw from any program for cause at any time.
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The University of Mississippi established the Medical center campus on July 1, 1955, when the School of Medicine was relocated from the Oxford campus to Jackson under the leadership of Chancellor J.D. Williams and Dean David Pankratz. The School of Medicine, originally founded in 1903, had been a two-year course of study. However, the move to Jackson provided a traditional program leading to the four-year MD degree, a medical library and a teaching hospital situated on 164 acres.

The Jackson campus, now referred to as the University of Mississippi Medical Center (UMMC), is the University's present center for excellence in care, education, and research. With state-of-the-art facilities and a tradition of excellence, UMMC is dedicated to improving the health and well-being of patients and the community through clinical care, for innovative research and for training committed health care professionals who work together to improve health outcomes and eliminate health disparities.

FACILITIES

The University of Mississippi Medical Center is located in the heart of the capital city with the original eight-story building now serving as the nucleus of a major academic health sciences complex. The Jackson campus is home to six health science schools: Medicine, Nursing, Health Related Professions, Dentistry, Graduate Studies and Pharmacy. Although the School of Pharmacy is located on the Oxford campus, Pharmacy students receive their final two years of clinical training at the Medical Center.

Over the years, the vision and mission of education, research, and healthcare has prompted continuous growth in the form of new buildings and major additions. These include the Arthur C. Guyton Laboratory Research Center (with a later addition); the state's only children's hospital (Blair E. Batson) with a two-story addition of a pediatric surgical suite; the School of Health Related Professions building; Winfred L. Wiser Hospital for Women and Children; the Norman C. Nelson Student Union; the Wallace Conerly Hospital for Critical Care; a new adult hospital; a major addition to the School of Nursing; a Classroom Wing; the School of Pharmacy building; the Col. Harland Sanders Children's Emergency Department; Selby and Richard McRae Children's Trauma Unit; and University Heart. With construction under way on the Translational Research Facility, the School of Medicine building and a parking garage, progress is continuously being made. Progress extends beyond the Jackson campus and spreads across the state of Mississippi to include multiple clinics in the Jackson area, specialty clinics in Rankin County, and hospitals in Grenada and Lexington. UMMC realizes that exercise and nutrition are essential to health. The addition of the University Wellness Centers located in Madison, downtown Jackson and Brandon brings the mission of a healthier Mississippi full circle.

THE UNIVERSITY HOSPITALS AND HEALTH SYSTEM — The 722-bed University Hospitals and Health System is the teaching center for all Medical Center educational programs and a diagnostic and treatment referral center for the entire state. The system includes ambulatory services at the Jackson Medical Mall, the University Medical Pavilion, University Rehabilitation Center and University Physicians Grants Ferry; and hospital services at Children's Healthcare of Mississippi, the Wallace Conerly Hospital for Critical Care, the Winfred L. Wiser Hospital for Women and Infants, University Hospital and Select Specialty Hospital in northeast Jackson. Additionally, the system operates the Holmes County Hospital and Clinic in Grenada and Lexington. UMMC realizes that exercise and nutrition are essential to health. The addition of the University Wellness Centers located in Madison, downtown Jackson and Brandon brings the mission of a healthier Mississippi full circle.

AFFILIATED HOSPITALS — The G.V. “Sonny” Montgomery Veterans Affairs Medical Center of Jackson, with 163 general patient beds, is the principal teaching affiliate for Medical Center educational programs. The Addie McBryde Rehabilitation Center for the Blind, completed in 1972, adjoins the University Hospital as does the Mississippi Methodist Hospital and Rehabilitation Center, which opened in 1975.

NORMAN C. NELSON STUDENT UNION — The Norman C. Nelson Student Union houses the bookstore, and convention facilities, food services and student facilities. Student facilities include conference room, study rooms, television/recreational areas, gymnasium, running track, aerobics room, exercise facilities, locker room and equipment checkout.

ROWLAND MEDICAL LIBRARY — The nearly 45,000-square-foot Rowland Medical Library is the general library for the Medical Center community. Named in honor of Dr. Peter Rowland, former professor of pharmacology, the library houses a print collection of more than 318,000 volumes and provides access to electronic books and journals. The main floor provides access to current journal and reference collections and a computer lab while the second floor houses textbooks, monographs, bound journals, and archives. There are small group and individual study areas on both floors.
Library services include interlibrary loan, document delivery and circulation along with individual consultation and instruction on information retrieval. The library instructional program introduces students to biomedical literature retrieval skills within the curriculum to facilitate identifying best practice and evidence-based information for clinical decision making. The Medical Center’s wireless network is accessible throughout the library.

Rowland Medical Library is a resource library within the National Network of Libraries of Medicine Southeastern/Atlantic Region.

ACADEMIC REGULATIONS
The academic regulations of the institution are set forth in Academic Affairs policy and procedure. All Academic Affairs policy and procedure will conform to SACSCOC expectations to be approved through appropriate institutional procedures, published in appropriate institutional documents, accessible to those affected, and enforced by the institution. These policies and procedures may be available in the UMMC Bulletin, the UMMC Document Center, or in the school-specific student handbooks. Changes may be made to the academic policy or procedure at any time to promote the best interests of the Medical Center and its students. The dean of each school is the final arbiter of academic regulations for that school. The Associate Vice Chancellor for Academic Affairs adjudicates academic regulations that affect more than a single school at the Medical Center.

INSTRUCTIONAL PROGRAMS
SCHOOL OF DENTISTRY — The School of Dentistry offers a four-year program leading to the degree of Doctor of Dental Medicine.

SCHOOL OF GRADUATE STUDIES IN THE HEALTH SCIENCES — The School of Graduate Studies in the Health Sciences offers programs leading to the Master of Science (Biomedical Materials Science, Biomedical Sciences, Clinical Anatomy and Clinical Health Sciences – this program is no longer accepting new graduate students) and the Doctor of Philosophy (Anatomy, Biochemistry, Biomedical Materials Science, Clinical Health Sciences, Medical Pharmacology, Microbiology, Neuroscience, Nursing, Pathology and Physiology and Biophysics).

SCHOOL OF HEALTH RELATED PROFESSIONS — The School of Health Related Professions offers programs leading to the Bachelor of Science (Dental Hygiene, Health Informatics and Information Management, Health Sciences, Medical Laboratory Science and Radiologic Sciences), Master of Science in Nuclear Medicine Technology and in Magnetic Resonance Imaging, Master of Health Informatics and Information Management, Master of Health Sciences, Master of Occupational Therapy, Doctor of Health Administration and the Doctor of Physical Therapy.

SCHOOL OF MEDICINE — The School of Medicine offers a four-year program leading to the degree of Doctor of Medicine. Additionally, a combined MD/PhD program is offered to highly qualified students by the School of Medicine in collaboration with the School of Graduate Studies in the Health Sciences.

SCHOOL OF NURSING — The School of Nursing offers programs leading to the Bachelor of Science in Nursing, the Master of Science in Nursing, and the Doctor of Nursing Practice. Additionally, the School offers post-master’s certificate programs in adult-gerontology acute care nurse practitioner, family nurse practitioner, psychiatric mental health nurse practitioner, nurse educator, nursing and health care administrator, and adult-gerontological nurse practitioner.

SCHOOL OF PHARMACY — The School of Pharmacy offers a seven-year program leading to the degree of Doctor of Pharmacy, including three years of a pre-pharmacy early entry program and four years in the professional program. The first two years of the professional program are administered on the Oxford campus and the final two years are administered on the UMMC campus.

ADMISSION
Admission to the University of Mississippi Medical Center is administered under policies established by state law, the Board of Trustees of State Institutions of Higher Learning and the Medical Center’s faculty. For program-specific admission requirements, please see the respective schools’ sections of this Bulletin. Admission requirements are subject to change without notice at the direction of the Board of Trustees.

STUDENT ENROLLMENT STATUS
Certification of full-, half- or less than half-time enrollment status for loan deferment, medical insurance, etc. is based on hours of enrollment in a term (fall, spring, summer). Listed below are the requirements that determine student status for official enrollment certification purposes by the Office of the Registrar and for financial assistance. Students are required to be enrolled in at least half-time status to receive federal student loans, be covered for health/medical insurance or to defer repayment of student loans.

<table>
<thead>
<tr>
<th>UNDERGRADUATE</th>
<th>GRADUATE</th>
</tr>
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<tbody>
<tr>
<td>Full-Time</td>
<td>12 Hours and above</td>
</tr>
<tr>
<td>Three-Quarter Time</td>
<td>9, 10, 11 Hours</td>
</tr>
<tr>
<td>Half-Time</td>
<td>6, 7, 8 Hours</td>
</tr>
<tr>
<td>Less Than Half Time</td>
<td>5 or less Hours</td>
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TUITION AND FEES
It is the intent of the University of Mississippi Medical Center to provide the highest quality education at a reasonable cost. Since student tuition and fee charges are used for operating costs, including scholarships and waivers, the Medical Center reserves the right to increase or modify tuition and fees without prior notice subject to the approval of the Board of Trustees of State Institutions of Higher Learning as required by the Department of Education. Information regarding tuition and fees for programs available at the Medical Center can be found within the respective schools’ sections of this Bulletin.
PAYMENT — Tuition and fees are assessed either by credit hour, or, in the case of medical and dental students, based on the approved tuition rate for the year. Insurance and test fees are also billed to the student tuition account. Billing statements are emailed to each student’s UMMC email account. Students are expected to check their email account on a regular basis. Payment is due by June 15, September 30 and February 15 for the summer, fall and spring semesters, respectively.

Students who register for courses at the University of Mississippi Medical Center acknowledge a financial obligation when they sign their registration agreement. If payment is not received by the due date, late charges and/or service fees may be assessed on the unpaid balance. Nonpayment of accounts does not constitute class withdrawal or cancellation of health insurance. Delinquent accounts may be reported to outside collection agencies and credit bureaus. Any collection costs or legal fees incurred in collecting unpaid accounts will be charged to the student. Additional information concerning billing and payment of fees is available online.

RETURNED CHECKS — Checks returned by the bank are charged back to the student’s account and a $30 non-sufficient funds fee is assessed. The student will be notified of the return and must make payment within 15 days or legal action may be initiated. Online payments returned for non-sufficient funds are also subject to the non-sufficient funds fee. Accounts with a balance due to charge backs are subject to late fees.

TUITION REFUNDS — By registering for school, students incur a financial obligation to pay for the entire academic term for which they are registered. Registering for a term includes early registration and all courses added after the student’s initial registration. Students who withdraw or go on an approved leave of absence may be eligible for a refund of their tuition and fees provided they complete the official withdrawal or leave of absence procedures within the refund period. Failure to attend classes is not considered an official withdrawal. For purposes of this section, withdrawals and leaves of absence will all be termed “withdrawals.” Refund dates are included in the academic calendar and are also posted on the student portal. In the event a student who was receiving financial aid drops hours, withdraws or goes on leave of absence, all or a portion of that aid may have to be returned to the source based upon the Return to Title IV (R2T4) calculation performed by the Office of Student Financial Aid as outlined in Federal Regulation 34 CFR 668.22. Tuition reversals based upon last date of attendance may not wholly offset the amount of aid returned and the student will be required to pay the difference to clear their account.

In the event that the student is owed a refund, a check will be mailed to the student at the address provided during the exit process. Students who owe money to the school at the time of withdrawal will be required to pay the account balance at the time they withdraw. If the account is not paid, the account will be considered delinquent and may be referred to an outside collection agency and reported to a credit bureau. The student will be required to pay for any collection costs and legal fees incurred in the collection process.

GENERAL FEES — The following fees are applicable to all students.

Tuition........................................................................................................................................................................................................$15,000
Application fee......................................................................................................................................................................................................$50
School of Health Related Professions, School of Nursing and School of Graduate Studies in the Health Sciences...........................$25
Application fee for residents – School of Medicine and School of Dentistry .......................................................................................$50
Transcript fee....................................................................................................................................................................................$5 per transcript

Requests for transcripts initiated by other persons and agencies will not be filled until written authorization has been received from the student and remittance of fee has been made.

Health Insurance......................................................................................................................................................................................$2,633 per year, single coverage

See the Student Health section of the Bulletin for more information regarding health insurance. Health insurance premiums are revised annually in September. An optional dental/health plan is also available. Contact the Office of Student Accounting for plan benefits and prices.

Course audit fee ......................................................................................................................................................................................Same per hour rate as tuition
Returned check fee......................................................................................................................................................................................................$30
Distance Learning Fee...............................................................................................................................................................................$150 per semester

WITHDRAWAL POLICY

Registration for a course makes the student responsible for meeting course requirements until the course is completed or until, with the permission of the dean or designee, the student withdraws from the course. The Withdrawal from Courses and/or Programs policy is available in the UMMC Document Center.

Individual schools may have stricter withdrawal policies, and a student is allowed only as many withdrawals as his/her specific school prescribes.

For program specific withdrawal requirements, please see the respective schools’ sections of this Bulletin.

LEGAL RESIDENCE

The Medical Center applies the definitions and conditions stated here as required by state law in the classification of students as residents or nonresidents for the assessment of fees. Requests for a review of residency classification should be submitted to the Office of Student Records and Registrar.

RESIDENCE OF A MINOR — The residence of a person less than 21 years of age is determined based on the residence of the father, the mother or a general guardian duly appointed by a proper court in Mississippi. If a court has granted custody of the minor to one parent, the residence of the minor is that of the parent who was granted custody by the court. If both parents are dead, the residence of the minor is that of the last surviving parent at the time of that parent’s death, unless the minor lives with a general guardian duly appointed by a proper court of Mississippi, in which case his/her residence becomes that of the guardian. A minor student who, upon registration at the University of Mississippi Medical Center, presents a transcript demonstrating graduation from a Mississippi secondary school and who has
been a secondary school student in Mississippi for not less than the final four years of secondary school attendance shall not be required to pay out-of-state tuition.

**RESIDENCE OF AN ADULT** — The residence of an adult is that place where he/she is domiciled, that is, the place where he/she actually physically resides with the intention of remaining there indefinitely or of returning there permanently when temporarily absent.

**REMOVAL OF PARENTS FROM MISSISSIPPI** — If the parents of a minor who is enrolled as a student at the University of Mississippi Medical Center move their legal residence from Mississippi, the minor shall be immediately classified as a nonresident; such a change in classification shall not affect the tuition to be charged upon completion of the semester in which the move takes place.

**RESIDENCE REQUIRED** — No student may be admitted to the University of Mississippi Medical Center as a resident of Mississippi unless his/her residence has been in Mississippi preceding his/her admission.

**RESIDENCY PETITIONS** — Nonresidents may petition the University of Mississippi Medical Center for a change of residency classification. A person who enters Mississippi from another state and enters a system institution is considered a nonresident, unless the person meets the residency requirements as a minor or adult as set out above. Provided, however, that any person who has attained 21 years of age and has thereafter actually established residency as an adult and resided within Mississippi for 12 consecutive months after attaining 21 years of age upon sworn affidavit and other representation, may petition the University of Mississippi Medical Center for a change in residency classification for the purposes of fees and tuition assessment. The Medical Center may make reasonable inquiry into the validity of the petitioner’s claim. Such petition for change of residency must be made on or before the last day a student may register at the Medical Center without penalty.

**LEGAL RESIDENCE OF A MARRIED PERSON** — A married person may claim the residence status of his/her spouse, or he/she may claim independent residence status under the same regulations set out above as any other adult.

**CHILDREN OF FACULTY OR STAFF** — Children of parents who are members of the faculty or staff of the University of Mississippi Medical Center may be classified as residents for the purpose of attendance at the Medical Center.

**MILITARY PERSONNEL ON ACTIVE DUTY STATION IN MISSISSIPPI** — Members of the U.S. Armed Forces on extended active duty and stationed within Mississippi and members of the Mississippi National Guard may be classified as residents for the purpose of attendance at the University of Mississippi Medical Center. Resident status of such military personnel, who are not legal residents of Mississippi, shall terminate upon their reassignment for duty in the continental United States outside of Mississippi.

**SPOUSE OR CHILD OF MILITARY PERSONNEL** — Resident status of a spouse or child of a member of the U.S. Armed Forces on extended active duty shall be that of the military spouse or parent for the purpose of attending the University of Mississippi Medical Center during the time that their military spouse or parent is stationed within Mississippi and shall be continued through the time that the military spouse or parent is stationed in an overseas area with last duty assignment within Mississippi, excepting temporary training assignments en route from Mississippi.

Resident status of a minor child terminates upon reassignment under Permanent Change of Station Orders of the military parent for duty in the continental United States outside Mississippi, excepting temporary training assignments en route from Mississippi. The spouse or child of a member of the U.S. Armed Forces who dies or is killed is entitled to pay the resident tuition fee if the spouse or child becomes a resident of Mississippi. If a member of the U.S. Armed Forces is stationed outside Mississippi and the member’s spouse or child establishes residence in Mississippi and registers at the University of Mississippi Medical Center, the Medical Center shall permit the spouse or child to pay the tuition, fees and other charges provided for Mississippi residents without regard to length of time that the spouse or child has resided in Mississippi. A member of the U.S. Armed Forces or the child or spouse of a member of the U.S. Armed Forces who is entitled to pay tuition and fees at the rate provided for Mississippi residents under another provision of this section while enrolled in a degree or certificate program is entitled to pay tuition and fees at the rate provided for Mississippi residents in any subsequent term or semester while the person is continuously enrolled in the same degree or certificate program. A student may withdraw or may choose not to re-enroll for no more than one (1) semester or term while pursuing a degree or certificate without losing resident status only if that student provides sufficient documentation by a physician that the student has a medical condition that requires withdrawal or non-enrollment. For purposes of this section, a person is not required to enroll in a summer term to remain continuously enrolled in a degree or certificate program. The person’s eligibility to pay tuition and fees at the rate provided for Mississippi residents under this section does not terminate because the person is no longer a member of the U.S. Armed Forces or the child or spouse of a member of the Armed Forces of the United States.

**CERTIFICATION OF RESIDENCE OF MILITARY PERSONNEL** — A military person on active duty stationed in Mississippi who wishes to avail himself/herself or his/her dependents to be classified as residents for the purpose of attendance at the University of Mississippi Medical Center must submit a certificate from his/her military organization showing the name of the military member; the name of the dependent, if for a dependent; the name of the organization of assignment and its address (may be in the letterhead); that the military member will be on active duty stationed in Mississippi on the date of registration at the Medical Center; that the military member is not on transfer orders; and the signature of the commanding officer, the adjutant or the personnel officer of the unit of assignment with signer’s rank and title. A military certificate must be presented to the Office of Student Records and Registrar each semester or tri-semester at (or within 10 days prior to) registration each semester for the provisions of said section to be effective.

The Medical Center complies with section 702 of the Choice Act in determination of tuition for selected veterans and their dependents.

**SUPPORT SERVICES**

The University of Mississippi Medical Center offers a comprehensive program of student support services through the Division of Academic Affairs, the Office of the Chief Student Affairs Officer, the individual schools, the Office of Academic Support, Office of Student Financial Aid, the Office of Student Accounting, the Office of Student Records and Registrar, the Student and Employee Health Service and the University Police. The Medical Center believes these services are an important adjunct to the total educational program and essential to the continuing fulfillment of the institution’s purpose.
ACADEMIC ADVISEMENT — Faculty advisors are an important resource for students. Faculty advisers meet with students in the School of Dentistry, School of Graduate Studies in the Health Sciences, School of Health Related Professions, School of Medicine, School of Nursing, and School of Pharmacy.

ACADEMIC AFFAIRS — The Division of Academic Affairs promotes the pursuit of excellence in education delivery to students in all academic programs, supports the faculty who provide instruction, and provides leadership to and coordination among services for faculty and students. The Division of Academic Affairs provides expertise and services to faculty and students related to adult education, teaching, learning, professionalism and interprofessional training. Services are provided by the following offices: Academic Development; Academic Effectiveness; Academic Support; Center for Bioethics and Medical Humanities; Community Education; Community Engagement and Service Learning; Continuing Health Professional Education; E-Learning; Health Careers Opportunity; Institutional Research; Media Production and Photography; Simulation-Based Education; Rowland Medical Library; and Student Records and Registrar.

ACADEMIC SUPPORT — The Office of Academic Support provides oversight to the following University of Mississippi Medical Center support services:

Academic Consulting Services
University Tutoring Services
Writing Support Services
Academic Accommodations

Academic Consulting Services. The Office of Academic Support provides Academic Consulting Services to students, residents and fellows currently enrolled at the University of Mississippi Medical Center. Academic consultants meet individually with learners and provide assistance with developing the skills and behaviors that are essential to academic success and professional development. Services are available at no charge to the learner and may address a wide range of issues. These include transition to professional school, time management, study skills, stress management, testing strategies, interpersonal and communication skills, clarifying career goals and coping strategies.

Individuals may initiate contact with the office or be referred by faculty. To make an appointment, individuals should go to the Office of Academic Support webpage and complete the Request Academic Consultation online form.

University Tutoring Services. The Office of Academic Support manages University Tutoring Services, the peer tutoring program available at no cost to all students currently enrolled at the University of Mississippi Medical Center. This program is designed to promote academic excellence through supportive instruction by peers with similar educational experiences and backgrounds. Tutoring occurs on UMMC’s campus and scheduling is negotiated by the student and assigned tutor. You must be registered in the course for which you request tutoring to be eligible for the services. Tutors are not available for all courses at the institution. Once you have submitted the Request Tutoring form on the University Tutoring Services webpage, you will be notified if tutoring is available for the requested course and provided further information about the program.

To request tutoring or receive more information about available courses, individuals should go to the Office of Academic Support webpage and complete the Request Tutoring online form.

Writing Support Services. The Office of Academic Support provides writing support services to students, residents, and fellows who are currently at the University of Mississippi Medical Center. A writing coach is available to meet individually and at no charge to the learner and may address many aspects of academic and professional writing.

To request writing support or receive more information about the services, individuals should go to the Office of Academic Support webpage and complete the Request for Writing Support form.

Academic Accommodations. The Office of Academic Support manages academic accommodations at the University of Mississippi Medical Center. Note: Students in the School of Pharmacy should apply for academic accommodations through the University of Mississippi, Oxford Campus.

The University of Mississippi Medical Center is committed to ensuring equal access to a quality education for qualified students through the provision of reasonable academic accommodations which support UMMC standards and academic integrity. UMMC policy provides for reasonable academic accommodations to be made for students with verified disabilities on an individualized and flexible basis as specified under Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 (ADA).

UMMC provides reasonable academic accommodations to students on campus who request accommodations and who meet eligibility criteria. For more information, individuals should review the Office of Academic Support webpage or contact the office directly. To request academic accommodations, individuals should complete the Request for Academic Accommodations form available on the Office of Academic Support webpage.

Office of Academic Support
University of Mississippi Medical Center
Verner Holmes Learning Resource Center, U155-A
Phone: (601) 815-5064 • Fax: (601) 815-5828
https://www.umc.edu/academic-support/

BOOKSTORE — Located in the Norman C. Nelson Student Union building, the Bookstore provides Medical Center students with a selection of textbooks, medical instruments, school supplies, insignia items, computer supplies, and gifts. Additional information is available online and on Facebook.

FINANCIAL AID — The University of Mississippi Medical Center subscribes to the principle that the amount of financial aid granted to a student should be based upon financial need. Therefore, students wishing to apply for financial aid must complete the FAFSA (Free Application for Federal Student Aid) online (using the Medical Center’s Federal School Code number 004688), apply for a Personal
STUDENT HEALTH

The Student and Employee Health Service provides ambulatory medical care to students from 8 a.m.-4 p.m. weekdays and on a walk-in plan will be required to complete a waiver online in the Student Accounting office, and must be received and processed prior to the month being canceled. Cancellation of Coverage must be made through the Student Accounting Office. A CHANGE FORM must be completed in the Student Accounting Office for all types of coverage changes. May be made at any time by contacting the support order. Documentation is required for all special qualifying events. Students on family plans who desire to drop dependents may do so at any time. In most events, changes will be effective the first of the following months, however special rules apply. A CHANGE FORM may be made during open enrollment. Changes to existing coverage may be made during open enrollment. Changes that can be made during open enrollment include adding dependents or changing coverage options. Changes made in months other than August require a special qualifying event and are subject to time restrictions. Special qualifying events include involuntary loss of coverage, marriage, birth or adoption of a child, or a qualified child support order. Documentation is required for all special qualifying events. Students on family plans who desire to drop dependents may do so at any time. In most events, changes will be effective the first of the following months, however special rules apply. A CHANGE FORM must be completed in the Student Accounting Office for all types of coverage changes. May be made at any time by contacting the Student Accounting Office.

APPLYING FOR, CHANGES TO, AND CANCELLATION OF STUDENT INSURANCE ---

New Students apply online via the Student Portal. Open Enrollment is held annually during the month of August, with coverage beginning on September 1. Any student may apply during open enrollment, and the application is online in the Student Portal. Changes to existing coverage may be made during open enrollment. Changes that can be made during open enrollment include adding dependents or changing coverage options. Changes made in months other than August require a special qualifying event and are subject to time restrictions. Special qualifying events include involuntary loss of coverage, marriage, birth or adoption of a child, or a qualified child support order. Documentation is required for all special qualifying events. Students on family plans who desire to drop dependents may do so at any time. In most events, changes will be effective the first of the following months, however special rules apply. A CHANGE FORM must be completed in the Student Accounting Office for all types of coverage changes. May be made at any time by contacting the Student Accounting Office.

CANCELLATION OF COVERAGE must be made through the Student Accounting Office. Completing an Insurance Waiver will NOT cancel existing coverage. Cancellation may not be made for partial months or retroactively. A CANCELLATION FORM must be completed in the Student Accounting Office, and must be received and processed prior to the month being canceled. Students will be automatically dropped from the policy after graduation, or other separation from enrollment, unless they qualify and apply for continuation of coverage. Students may be cancelled for nonpayment of premiums. This could result in permanent loss of coverage.
under the student group insurance plan. It is the student's responsibility to read all materials related to health insurance policy provisions. Questions should be addressed to the Office of Student Accounting.

IMMUNIZATIONS AND VACCINATIONS — The Board of Trustees of State Institutions of Higher Learning, in cooperation with the Mississippi Department of Health, has issued regulations requiring proof of immunization for measles, mumps and rubella of all students, unless exempt because of (a) actual or suspected pregnancy (measles or rubella vaccines are not required for females who are pregnant; if pregnancy is suspected, a valid certificate of medical exception from a health provider is required until pregnancy is resolved); (b) medical contraindication; or (c) birth prior to 1957. The UMMC Healthcare Professional Student Immunization Requirements policy is available in the UMMC Document Center. Questions about the policy should be directed to the Office of Student and Employee Health.

ACQUIRED IMMUNE DEFICIENCY SYNDROME — Acquired Immune Deficiency Syndrome (AIDS) is a condition which destroys the body's immune (defense) system and allows life-threatening infections to develop. It has no known cure or vaccine for prevention, and an individual can transmit the virus even in the absence of symptoms. Current medical knowledge indicates that transmission is primarily through sexual contact or through the sharing of intravenous drug paraphernalia. According to the Centers for Disease Control, contracting the disease in most situations encountered in an individual's daily activities is not known to occur. Terms associated with AIDS include:

- HIV - human immunodeficiency virus (the causative agent of AIDS).
- HIV antibody - a protein in the body produced in response to exposure to the human immunodeficiency virus.

The Medical Center does not routinely screen students, faculty or staff for antibodies to HIV or ask if they are HIV-positive. However, students who know they are HIV-positive are encouraged to report this fact to the director of the Student and Employee Health Service so they can obtain appropriate medical care, consultation and counseling for their own protection and that of others. The information will remain confidential as a part of the student's medical record.

Students with AIDS, and those with other manifestations of HIV infection, are deemed to have a handicapping condition as defined in the Rehabilitation Act of 1973. Selection of applicants for the University of Mississippi Medical Center's educational programs is made on a competitive basis, without regard to race, sex, color, religion, marital status, age, national origin, disability or veteran status.

The school in which the student is enrolled will make every reasonable accommodation to enable a student who is HIV-positive to successfully complete the requirements of his/her educational program. The school also will make available career counseling should the student wish to review his/her educational objectives in light of the realities of HIV infection.

HIV-infected students may have their educational program modified by their school to limit any potential risk of disease transmission. Restrictions on any clinical assignments and/or off-campus clinical rotations or externships will be made on a case-by-case basis.

Immunizations — Students who have HIV infection are not exempted from Medical Center requirements for non-live virus vaccinations. However, because of potentially serious consequences for HIV-infected persons receiving live virus vaccines, HIV-infected students who are required to receive such immunizations should consult the Student and Employee Health Service or the Hinds County Department of Health for current recommendations.

Testing and Care — Students who wish to get HIV antibody testing will be referred to the Hinds County Department of Health or the Student and Employee Health Service. Students who become HIV-positive during the course of their enrollment may get appropriate medical care, consultation and counseling through the Student and Employee Health Service.

Confidentiality — Medical information will not be released to any person, group, agency, insurer, employer or institution without specific written consent of the patient or legal guardian except as required by law. Every effort will be made to preserve the confidentiality of the medical record of a student who is HIV-positive. Knowledge of a student's HIV status will be limited to those with an absolute necessity to know.

Public Health Reporting Requirement — The Medical Center complies with all public health reporting requirements of the Mississippi State Department of Public Health and the Centers for Disease Control. Students who are known to be HIV-positive are reported to the State Department of Health.

Personnel — Since many people with HIV infections are not identified in advance, universal precautions, as defined by the Centers for Disease Control and by OSHA, guide Medical Center procedures for the handling of blood and body fluids of any student, employee or patient. Questions regarding these safety guidelines should be directed to the director of Student and Employee Health Services or to the dean of the school in which the student is enrolled.

Universal Precautions — Manuals and procedures in use at the Medical Center cover the precautions which should be taken when handling infectious materials.

All Medical Center personnel, including students, will use disposable, one-use needles and other equipment if the skin or mucous membranes of patients, employees or students will be punctured. Extreme caution should be exercised when handling sharp objects, particularly in disposing of needles. All used needles should be placed in a puncture-resistant container designated for this purpose. Needles should never be bent or recapped after use. Blood-soiled articles should be placed in puncture-proof bags and labeled prominently before being sent for reprocessing or disposal in accordance with Medical Center infection control guidelines. Students who have questions about universal precautions or other Medical Center infection control guidelines should see the infection control website.

Teaching Laboratories — Laboratory courses requiring exposure to blood, such as courses in which blood is obtained by finger-prick for typing or examination, must use disposable equipment. No lancets or other blood-letting devices should be re-used or shared.

Behavior Risk — Medical Center students who are HIV-positive and are aware of their condition and engage in behavior which threatens the safety and welfare of other students, patients or Medical Center personnel may be subject to disciplinary action.

Applicability of Other Medical Center AIDS Policies — More specific written guidelines and procedures are the responsibility of the individual schools and may be developed, as needed, by the deans and department heads. All unit policies must comply with those for the institution as a whole.
STUDENT GOVERNMENT
The Associated Student Body (ASB) is the student government organization of the University of Mississippi Medical Center. Comprised of elected representatives and designated officers from the Schools of Dentistry, Graduate Studies in the Health Sciences, Health Related Professions, Medicine, Nursing and Pharmacy, the ASB meets with and provides information and opinions of student concern to the Medical Center administration and faculty. ASB also develops activities relating to academic programs and sponsors extracurricular activities including intramural sports and publication of the campus yearbook (Medic) and the student newspaper (Murmur).

STUDENT PROFESSIONAL ORGANIZATIONS
There are active professional organizations for students enrolled in the various academic programs at the Medical Center. Information on these organizations may be obtained from each school’s Office of Student Affairs.

STUDENTS’ RIGHTS AND RESPONSIBILITIES

SCHOLARSHIP AND PROMOTION — Promotion of students is dependent upon the satisfactory completion of each year’s work. Promotions within the academic divisions of the University of Mississippi Medical Center are considered on the basis of recommendations by individual instructors, on departmental evaluations and on the student’s total record. The faculty of each of the academic programs has the obligation and right to determine methods for evaluating a student’s performance and to evaluate each student individually in compliance with applicable Medical Center, school and departmental regulations.

Regulations for all of the programs have their basis in the Medical Center’s vision to be a great academic health sciences center dedicated to improving lives. Information about the scholarship and promotion policies may be found in each school’s section in this Bulletin or student handbooks. Inherent in these policies is the right of students to use the institutional student appeals process to seek redress of decisions involving academic status, disciplinary matters and other areas of student life.

Students dismissed for academic reasons or subjected to disciplinary action may appeal the decision as stated in the letter of notification from the academic program in which the student is enrolled. The Institutional Executive Officer has delegated full authority regarding student appeals to the various academic deans; therefore, the decision of the dean for the program in which the student is enrolled is final. However, if a student provides compelling evidence of incorrect application of the school-specific appeal process, a procedural appeal may be considered at the institutional level.

Students who wish to appeal decisions, in such matters as student financial aid, should contact the appropriate office. The student will be notified in writing about the appropriate appeals process.

In all cases of student appeals, students are free to present pertinent information and material, to have an attorney present or to bring faculty and other appropriate spokespersons to the appeal hearing. The faculty and administration reserve the right to make changes in curricula regulations when such changes are determined to be in the best interest of the student, the school and the institution.

NON-ACADEMIC DISCIPLINARY ACTION — All students enrolled in any educational program at the University of Mississippi Medical Center are expected to conduct themselves in an honest and ethical manner appropriate to a professional student whether on or off campus. Examples of unprofessional conduct include, but are not limited to, these examples: dishonesty, cheating, falsifying documents, accessing or divulging protected health information, violating the Medical Center Information Policy, and knowingly violating any other Medical Center policy. Any student who does not meet the standards of professional conduct as defined in his/her school’s Student Handbook may be subject to disciplinary action up to and including dismissal from the institution. Students have the right to appeal any adverse disciplinary action as outlined in their school’s student handbook.

STUDENT COMPLAINTS — Students seeking to resolve an academic or misconduct complaint will seek resolution through the school’s published administrative channels, entering at the appropriate level and proceeding in the order stated. All decisions by the school’s dean or executive faculty concerning academic matters are final. Procedural appeals may be filed to the associate vice chancellor for academic affairs. Information on academic and conduct complaints are published in the Bulletin and also included in the individual school’s handbook. Information about student complaints may be found on the Student Comments and Complaints website. The Student Complaints policy is available in the UMMC Document Center.

A student seeking to resolve a non-academic or non-misconduct complaint will seek resolution through the appropriate office on campus designated to address the particular student concern. Issues involving such matters as sexual harassment, discrimination, disability, employment or mistreatment fall under the institutional policies that are handled by specific offices, such as the Office of Human Resources or the Equal Employment Opportunity Office. The Sexual Misconduct, Sexual Assault and Sexual Harassment Policy and Procedure (Title IX) for Students and Employees policy is available in the UMMC Document Center.

RELIGIOUS DIVERSITY — The Medical Center embraces religious diversity for individuals of all faiths. It is the intent of the institution to make every effort to reasonably accommodate individuals based on their religious beliefs. Observation of religious holidays in all faiths will be supported except when detrimental to patient care or established policies. Conflicts between religious obligations and patient care obligations are handled much as they would be in clinical practice. That is, patient care responsibilities take precedence unless coverage has been previously arranged.

In an effort to respect students’ religious customs, academic departments will attempt to adjust schedules to allow the observance of these holidays. Any observance of religious holidays will not be a negative factor in the grading of a student’s performance. In the event the conflict is with an essential experience (e.g., board exams), then these essential experiences will take precedence. It is the student’s responsibility to inform the appropriate person in the department prior to or at the initial clinical rotation orientation of his/her request for accommodation so that patient care and on-call responsibilities can be met in full. It is also the student’s responsibility to obtain coverage so that patient care and on-call coverage are not compromised. In the event students cannot obtain coverage, they are expected to meet their responsibilities by taking call regardless of the schedule conflict.

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
Conflicts with religious observances and daily patient care or educational activities will be resolved by the department on a case-by-case basis. These arrangements must be made in advance and must be satisfactory to the department.

Questions and requests for additional information should be directed to either the associate vice chancellor for academic affairs, student affairs officers or the director of pastoral services.

FEDERAL FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

Student Access to Records — Each year, the Medical Center informs entering students of their rights of access to their official records as stated in the law. By written request to the Office of Student Records and Registrar, students who are or who have been in attendance may review recorded information maintained by the institution for use in making decisions about students.

Recorded information includes grades, copies of correspondence sent to the students by the educational programs and other institutional offices, and completion of licensure applications. The recorded information may also include an electronically stored transcript of courses and grades and a folder containing application materials and supporting documents, such as transcripts from previous schools and supplementary material submitted with the application.

Confidential letters or statements of recommendation to which students have waived access rights are not available for inspection. As defined by the law, students do not have access to medical, psychiatric or comparable records if these are used exclusively for treatment purposes. However, students may designate an appropriate professional to examine these records. Students do not have the right to see parents’ financial records submitted to the institution. Students do not have access to instructional, supervisory and administrative personnel records which are not accessible or revealed to any other individual; campus security records which are used exclusively for law enforcement purposes, and which are not disclosed to individuals other than law enforcement officials; and employment records except when such employment requires that the person be a student.

Release of Information — The institution is prohibited from releasing educational information or personally identifiable information other than directory information about the students without their written consent except to specified agencies and persons such as school officials and certain federal or state offices as defined in the law. A description of directory information can be found in the Notification of Directory Information Under FERPA policy located in the UMMC Document Center. Students must file a written request with the Office of Student Records and Registrar to obtain any of this information.

Under the law, students may not see confidential letters or statements of recommendations written prior to January 1, 1975, and may, but are not required to, waive the right of access to future confidential letters of recommendations. The institution secures from students their instructions regarding their access rights to confidential letters or statements of recommendation written on their behalf while enrolled at the Medical Center. These signed statements are permanently filed in the students’ folders. Any questions concerning student access to records should be directed to the Registrar.

Accuracy of Educational Records — The Family Educational Rights and Privacy Act of 1974, allows students to challenge the contents of their educational records on the basis of accuracy. Students who request that information be amended or deleted from their records on the basis of incorrect information should first submit their request to the official primarily responsible for the information. If the matter is not resolved to their satisfaction, students may request a formal hearing before an appropriate institutional body or consult Section 99.36 of the law’s regulations for additional grievance procedures. The Office of Student Records and Registrar will furnish a copy of the Family Educational Rights and Privacy Act, 1974, upon request. Notification of rights guaranteed under PL 93-380 and policies and procedures pertaining to educational records is provided to all students through this Bulletin section, by a memorandum distributed at the time of registration, and in the orientation sessions for the school year.

Equal Employment Opportunity Statement — The University of Mississippi Medical Center complies with all applicable laws regarding affirmative action and equal opportunity in all its activities and programs and does not discriminate against anyone protected by law because of age, color, disability, national origin, race, religion, sex, sexual orientation, handicap or status as a veteran or disabled veteran.
BOARD OF TRUSTEES OF
STATE INSTITUTIONS OF HIGHER LEARNING

By CONSTITUTIONAL AMENDMENT, the governance of The University of Mississippi and the other public institutions of higher learning in the state of Mississippi is vested in a Board of Trustees appointed by the governor with the advice and consent of the Senate. After January 1, 2004, as vacancies occur, the 12-member Board of Trustees of State Institutions of Higher Learning shall be appointed from each of the three Mississippi Supreme Court districts, until there are four members from each Supreme Court district. The terms are staggered so that all members appointed after 2012 will have a term of nine years. The Board of Trustees selects one of its members as president of the board. The board maintains offices at 3825 Ridgewood Road, Jackson, MS 39211.

Members whose terms expire May 7, 2024:
Tom Duff, Hattiesburg, Southern Supreme Court District
Alfred McNair, Ocean Springs, Southern Supreme Court District
Chip Morgan, Stoneville, Central Supreme Court District
J. Walt Starr, Starkville, Northern Supreme Court District

Members whose terms expire May 7, 2021:
Karen L. Cummins, Southaven, Northern Supreme Court District
Dr. Ford Dye III, Oxford, Northern Supreme Court District
Shane Hooper, Tupelo, Northern Supreme Court District
Hal Parker, Bolton, Central Supreme Court District

Members whose terms expire May 7, 2018:
Alan W. Perry, Jackson, Central Supreme Court District
Christy Pickering, Biloxi, Southern Supreme Court District
Douglas W. Rouse, Hattiesburg, Southern Supreme Court District
C.D. Smith Jr., Meridian, Central Supreme Court District

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Douglas W. Rouse, Vice President
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Joey Granger, PhD, Dean of the School of Graduate Studies in the Health Sciences
Kim Hoover, PhD, Dean of the School of Nursing
Loretta Jackson-Williams, MD, Vice Dean for Medical Education, School of Medicine
Leigh Ann Ross, PharmD, Associate Dean for Clinical Affairs, Department of Pharmacy Practice
RESIDENCIES
Postgraduate training for physicians is offered at the University of Mississippi Medical Center in the disciplines listed below. Application should be made to the appropriate department.

MEDICAL SPECIALTIES
Anesthesiology
- Pain Management
- Rheumatology
Dermatology
- Neurology
Emergency Medicine
- Neuro-Critical Care
Family Medicine
- Neuropsychology
Sports Medicine
- Neuromuscular Medicine
Medicine
- Vascular Neurology
- Internal Medicine
- Obstetrics and Gynecology
- Allergy/Immunology
- Ophthalmology
- Cardiovascular Diseases
- Orthopedic Surgery
- Interventional Cardiology
- Hand Surgery
- Clinical Cardiac Electrophysiology
- Otolaryngology
- Endocrinology
- Pathology (Anatomic/Clinal)
- Gastroenterology
- Cytopathology
- Geriatrics
- Pediatrics
- Hematology/Oncology
- Pediatric Cardiology
- Infectious Diseases
- Pediatric Critical Care
- Nephrology
- Pediatric Gastroenterology
- Pulmonary/Critical Care Medicine
- Pediatric Hematology/Oncology
- Pediatric Hospice & Palliative Medicine
- Pediatric Neonatal-Perinatal Medicine
- Pediatric Neurology
- Psychiatry
- Child and Adolescent Psychiatry
- Sleep Medicine
- Radiation Oncology
- Radiology
- Surgery
- General Surgery
- Pediatric Surgery
- Plastic Surgery (Hand & Foot)
- Surgical Critical Care
- Thoracic Surgery
- Urology
- Vascular Surgery

PSYCHOLOGY
A residency in clinical psychology, approved by the American Psychological Association, is offered. The program is one year in duration starting July 1. Write the Psychology Residency Training program, Department of Psychiatry and Human Behavior, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505 for information and applications.

DENTISTRY
The School of Dentistry offers a one-year general practice residency from July 1-June 30, a one-year advanced education in general dentistry residency program, a two-year pediatric dentistry residency and a four-year oral-maxillofacial surgery residency program. For information, write the School of Dentistry, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505.

SCHOOL OF HEALTH RELATED PROFESSIONS
The Department of Physical Therapy offers two residency programs, one in Neurologic Physical Therapy and one in Sports Physical Therapy.

- The Neurologic Physical Therapy residency program is a cooperative effort between the University of Mississippi Medical Center, the School of Health Related Professions, St. Dominic Outpatient Rehabilitation Services and Methodist Rehabilitation Center. This program is 12 months in duration, beginning in September and ending the following August. The program is accredited by the American Physical Therapy Association, American Board of Physical Therapy Residency and Fellowship Education. The program prepares the resident to take the Neurologic Specialty Examination offered by the American Board of Physical Therapy Specialties. The resident is a full-time employee of UMMC and receives a competitive salary with a full benefits package. Contact and application information is available on the Neurologic Physical Therapy website.

- The Sports Physical Therapy residency program is a cooperative effort between the University of Mississippi Medical Center, the School of Health Related Professions, University Hospitals and Clinics, and local high schools and colleges including the University of Mississippi (Oxford campus). This program is 12 months in duration, beginning in late June and ending in late June the following year. It is accredited by the American Board of Physical Therapy Residency and Fellowship Education, the accrediting body for the American Physical Therapy Association. The program prepares the resident to take the Sports Specialty Examination offered by the American Board of Physical Therapy Specialties. The resident is a full-time employee of UMMC and receives a competitive salary and a full benefits package. Contact and application information is available on the Sports Physical Therapy website.

The Division of Orthotics and Prosthetics offers two residency programs, one in Orthotics and one in Prosthetics. Each is 12 months in duration and typically begins in July and ends the following year. The Orthotic and Prosthetic residency program is a cooperative effort between the University of Mississippi Medical Center and the School of Health Related Professions. There are four phases of the residency: Clinical Observation & Technical Assistance Phase; Clinical Assistance Phase; Direct Supervision Phase; and Indirect Supervision Phase. The program is accredited by the National Commission on Orthotic and Prosthetic Education (NCOPE). The program prepares the resident to take the American Board of Certification Examinations. The resident is a full-time UMMC employee and receives a salary and benefits package. Contact and application information is available on the Orthotics and Prosthetics website.
### ACADEMIC YEAR 2016-2017
#### M1 and M2 SEMESTER ACADEMIC CALENDAR

#### FALL SEMESTER

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>August</td>
<td>10</td>
<td>Wednesday</td>
<td>Orientation, CiM, and registration (M1 Class only)</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Wednesday</td>
<td>General Orientation (M1 Class only)</td>
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<tr>
<td></td>
<td>11</td>
<td>Thursday</td>
<td>White Coat Ceremony (M1 Class only)</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Monday</td>
<td>Classes begin (M1 and M2 Classes)</td>
</tr>
<tr>
<td>September</td>
<td>5</td>
<td>Tuesday</td>
<td>Labor Day holiday observed</td>
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<tr>
<td></td>
<td>6</td>
<td>Monday</td>
<td>Classes resume</td>
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<tr>
<td></td>
<td>6</td>
<td></td>
<td>Last day to withdraw from a course or from school without receiving a tuition refund</td>
</tr>
<tr>
<td>November</td>
<td>23</td>
<td>Wednesday</td>
<td>Thanksgiving Holiday begins at 5:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Monday</td>
<td>Classes resume</td>
</tr>
<tr>
<td>December</td>
<td>16</td>
<td>Friday</td>
<td>Christmas Holiday begins at 12:00 p.m. (M1 and M2 Classes)</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Friday</td>
<td>End of fall semester</td>
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#### SPRING SEMESTER

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>January</td>
<td>9</td>
<td>Monday</td>
<td>Classes begin</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Monday</td>
<td>Martin Luther King’s birthday holiday observed</td>
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<tr>
<td></td>
<td>17</td>
<td>Tuesday</td>
<td>Classes resume</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Monday</td>
<td>Last day to withdraw from a course or from school without receiving a tuition refund</td>
</tr>
<tr>
<td>February</td>
<td>8</td>
<td>Wednesday</td>
<td>Student Financial Wellness Seminar</td>
</tr>
<tr>
<td>March</td>
<td>15</td>
<td>Wednesday</td>
<td>Spring holiday begins at 5:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Friday</td>
<td>Match Day (M4 Class, M1-M3 Officers)</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Monday</td>
<td>Classes resume</td>
</tr>
<tr>
<td>April</td>
<td>10</td>
<td>Monday</td>
<td>Registration begins for 2017-2018 summer term and fall semester</td>
</tr>
<tr>
<td></td>
<td>Apr. 24-</td>
<td>Mon-Fri</td>
<td>Study Days/USMLE Step 1 (M2 Class only)</td>
</tr>
<tr>
<td></td>
<td>June 2</td>
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<tr>
<td>May</td>
<td>5</td>
<td>Friday</td>
<td>Honors Day</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>Friday</td>
<td>Commencement</td>
</tr>
</tbody>
</table>
### ACADEMIC YEAR 2016-2017

#### M3 SEMESTER MEDICAL CALENDAR

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>6-7</td>
<td>Mon-Tue</td>
<td>Orientation, CiM, registration, and Clinician Ceremony</td>
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<tr>
<td></td>
<td>8</td>
<td>Wednesday</td>
<td>Clerkships begin</td>
</tr>
<tr>
<td>July</td>
<td>4</td>
<td>Monday</td>
<td>Independence Day holiday</td>
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<tr>
<td></td>
<td>5</td>
<td>Tuesday</td>
<td>Clerkships resume at 8:00 a.m.</td>
</tr>
<tr>
<td>September</td>
<td>5</td>
<td>Monday</td>
<td>Labor Day holiday observed</td>
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<td></td>
<td>6</td>
<td>Tuesday</td>
<td>Clerkships resume at 8:00 a.m.</td>
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<td></td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and receive a tuition refund</td>
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<tr>
<td>November</td>
<td>23</td>
<td>Wednesday</td>
<td>Thanksgiving holiday begins at 5:00 p.m.</td>
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<td></td>
<td>28</td>
<td>Monday</td>
<td>Clerkships resume at 8:00 a.m.</td>
</tr>
<tr>
<td>December</td>
<td>16</td>
<td>Friday</td>
<td>Christmas and New Year’s holidays begin at 5:00 p.m.</td>
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<td>27</td>
<td>Tuesday</td>
<td>Clerkships resume at 8:00 a.m.</td>
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<td>January</td>
<td>2</td>
<td>Monday</td>
<td>New Year’s Day holiday observed</td>
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<td>3</td>
<td>Tuesday</td>
<td>Clerkships resume at 8:00 a.m.</td>
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<td></td>
<td>16</td>
<td>Monday</td>
<td>Martin Luther King’s birthday holiday observed</td>
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<td>17</td>
<td>Tuesday</td>
<td>Clerkships resume at 8:00 a.m.</td>
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<td></td>
<td>30</td>
<td>Monday</td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and receive a tuition refund</td>
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<td>February</td>
<td>3</td>
<td>Friday</td>
<td>Senior Planning Day</td>
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<td>8</td>
<td>Wednesday</td>
<td>Student Financial Wellness Seminar</td>
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<td>May</td>
<td>5</td>
<td>Friday</td>
<td>Honors Day</td>
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<td>*9-24</td>
<td>Tues-Wed</td>
<td>Clinical Skills Assessment</td>
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<td></td>
<td>25</td>
<td>Thursday</td>
<td>Last day of clinical rotations</td>
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<td>26</td>
<td>Friday</td>
<td>Commencement</td>
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<td></td>
<td>29</td>
<td>Monday</td>
<td>Memorial Day holiday observed</td>
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<tr>
<td>Notes:</td>
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<td>1) Clinical activities of students may vary and may not conform to this schedule.</td>
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<td>2) The required junior medical Clinical Skills Assessment will be scheduled between May 9-24, 2017. Each student will test for one day in this time period. The student will be notified of details regarding scheduling of this required activity.</td>
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<td>3) *Dates for the Clinical Skills Assessment are subject to change.</td>
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SCHOOL OF MEDICINE

LouAnn Woodward, MD, Dean
Loretta Jackson-Williams, MD, PhD, Vice Dean for Medical Education
Jerry Clark, MBA, PhD, Associate Dean for Student Affairs
Sharon P. Douglas, MD, Associate Dean for Education for VA Affairs
R. Stephen Manuel, PhD, Associate Dean for Admissions
Patrick Smith, PhD, Associate Dean for Faculty Affairs
Sajani Tipnis, MD, Assistant Dean for Curriculum
Fredrick E. Barr, MD, Senior Associate Dean for Graduate Medical Education
Shirley D. Schlessinger, MD, Associate Dean for Graduate Medical Education
Joseph M. Majure, MD, Assistant Dean for Graduate Medical Education

HISTORY
A special act of the Board of Trustees created the School of Medicine in 1903. Except for the 1909-1910 session when clinical training was provided at the Charity Hospital in Vicksburg, it operated continuously as a two-year school on the Oxford campus for more than half a century. In the summer of 1955, the school was moved to the state capital at Jackson and expanded to include the third and fourth years. The first class was graduated in June 1957. The School of Medicine is accredited by the Liaison Committee on Medical Education http://www.lcme.org/.

MISSION
The School of Medicine’s principal mission is to offer an excellent, comprehensive and interrelated program of medical education, biomedical research and health care. Through these programs, the ultimate goal of the School is to provide quality and equitable health care to all citizens of Mississippi, the region and nation. A core value of this mission is respect for the multiple dimensions of diversity reflected in all people.

In support of this mission, the School offers an accredited program of medical education that trains a diverse, skilled, compassionate, and respectful physician work force in numbers consistent with the health-care needs of Mississippi, professionals who are responsive to the health problems of the people, aware of health-care disparities, and committed to medical education as a continuum which must prevail throughout professional life. In addition, the School seeks to expand the body of basic and applied knowledge in biomedical sciences for the state, nation and the world, and to improve systems of health-care delivery and demonstrate model patient care for all members of our diverse community.

OBJECTIVES
The educational program of the School of Medicine is designed to achieve the multiple goals of dissemination of knowledge through teaching, application of knowledge through clinical practice, and creation of new knowledge through scientific research. The specific educational program objectives set forth below reflect the essential requirements for physicians to act in an ethical and altruistic fashion while providing competent medical care and fulfilling their obligations to their patients.

I. Graduates must have sufficient knowledge of the structure and function of the human body to recognize alterations from the normal. They must understand the various causes of such abnormalities and their pathogenesis. At the completion of the medical school curriculum, students must be able to demonstrate:
   • Knowledge of the normal structure and function of the human body and each of its major organ systems.
   • Knowledge of the molecular, biochemical and cellular mechanisms which help maintain the body’s homeostasis.
   • Knowledge of the various causes (genetic, developmental, metabolic, toxic, microbiologic, autoimmune, neoplastic, degenerative, and traumatic) of diseases and the ways in which they impact on the body (pathogenesis).
   • Knowledge of the altered structure and function (pathology and pathophysiology) of the body and its major organ systems that are seen in various diseases and conditions.
   • An understanding of the power of the scientific method in establishing the causation of disease and efficacy of traditional and nontraditional therapies.
   • Commitment to engage in lifelong learning to stay abreast of relevant scientific advances, especially those in the disciplines of genetics and molecular biology.

II. Graduates must possess the necessary diagnostic and interventional skills to accurately evaluate, diagnose and plan treatment appropriate for each patient. At the completion of the medical school curriculum, students must be able to demonstrate:
   • Competence in obtaining an accurate medical history that covers all essential aspects of the patient’s history, including issues related to age, gender, ethnic and socioeconomic status.
   • Competence in performing both a complete and an organ system specific examination, including one for mental status.
   • Competence in performing routine technical procedures including, at a minimum, venipuncture, inserting an intravenous catheter, airway management, inserting a nasogastric tube, inserting a foley catheter and suturing simple lacerations.
• Competence in interpreting results of commonly used diagnostic tests and procedures, i.e., laboratory, roentgenographic, electrocardiographic.
• Knowledge of the most frequent manifestations of common disorders.
• Ability to reason deductively in solving clinical problems.
• Ability to construct appropriate diagnostic and therapeutic plans/strategies for patients with common conditions, both acute and chronic, including medical, surgical and psychiatric conditions, and those requiring short- and long-term rehabilitation.
• Ability to recognize patients with immediately life-threatening conditions, i.e., infectious, cardiac, pulmonary, allergic, neurologic or psychiatric diseases regardless of etiology, and to institute appropriate initial therapy.
• Ability to recognize and outline initial management for patients with conditions requiring critical care.
• Knowledge about how to relieve pain and ameliorate suffering of patients.
• Ability to communicate effectively, both orally and in writing, with patients, patients’ families, colleagues, and health care team members with whom physicians must exchange information in carrying out their responsibilities.

III. Graduates must possess those characteristics, attitudes and values that are needed to provide ethical and beneficent medical care for all patients. At the completion of the medical school curriculum, students must be able to demonstrate:
• Knowledge of theories and principles that govern ethical decision making, and of the major ethical questions in medicine, particularly those at the beginning and end of life and those that surface from the rapid expansion of technology.
• Compassionate and nonjudgmental treatment of all patients, and respect for the privacy and dignity of all patients.
• Honesty and integrity in all interactions with patients, families, colleagues and others with whom physicians must interact in their professional lives.
• An understanding of, and respect for, the roles of other health care professionals, and of the need to collaborate and work with others in caring for individual patients and in promoting the health of defined populations.
• A commitment to advocate the interests of one’s patients over one’s own interests at all times.
• An understanding of the threats to medical professionalism posed by the conflicts of interest inherent in various financial and organizational arrangements for the practice of medicine.
• Capacity to recognize and accept limitations in one’s knowledge and clinical skills, and a commitment to continuously improve one’s knowledge and abilities.

IV. Graduates must have the ability to use systematic approaches for promoting, maintaining and improving the health of individuals and population. At the completion of the medical school curriculum, students must be able to demonstrate:
• Knowledge of the important non-biological determinants of poor health and of the economic, psychological, social and cultural factors that contribute to the development and/or continuation of maladies.
• Knowledge of the epidemiology of common maladies within a defined population and the systematic approaches useful in reducing the incidence and prevalence of those maladies.
• The ability to identify factors that place individuals at risk for disease or injury, to select appropriate tests for detecting patients at risk for specific diseases or in the early stage of disease, and to determine strategies for responding appropriately.
• The ability to retrieve from electronic databases and other resources, manage and utilize biomedical information for solving problems and making decisions that are relevant to the care of individuals and populations.
• Knowledge of various approaches to the organization, financing and delivery of health care.
• A commitment to provide care to patients who are unable to pay and to advocate for access to health care for members of traditionally underserved populations.

A COVENANT FOR MEDICAL EDUCATION
THE TEACHER- STUDENT RELATIONSHIP
Preparation for a career in medicine requires the acquisition of a large base of knowledge. It also demands the virtues that form the basis of the doctor-patient relationship and sustain the profession of medicine as a moral enterprise. This covenant serves as both a commitment and a reminder to teachers and students that their conduct in fulfilling their mutual obligations is the medium through which the profession instills its ethical values.

PRECEPTS
Medical educators have a duty to convey the knowledge and skills required to deliver the profession’s contemporary standard of care, to instill the values and attitudes required to preserve the medical profession’s social contract across the generations.

The learning environments conducive to conveying professional values must be grounded in integrity. Students learn enduring lessons of professionalism by observing and emulating role models who epitomize authentic professional values and attitudes.

Fundamental to the ethic of medicine is respect for every individual. Mutual respect between learners, as novice members of the medical profession, and their teachers, as experienced and esteemed professionals, is essential for nurturing that ethic. Given the inherently hierarchical nature of the teacher-student relationship, teachers have a special obligation to ensure that students are always treated with respect.
COMMITMENTS OF FACULTY

- We pledge our utmost efforts to ensure that all components of the educational program for medical students are of the highest quality.
- As mentors for our student colleagues, we pledge that we will maintain high professional standards in all of our interactions with patients, colleagues, and staff.
- We pledge that we will respect all students as individuals, without regard to gender, race, national origin, religion, age, or sexual orientation; we will not tolerate anyone who manifests disrespect or who expresses biased attitudes toward any student.
- We pledge that students will have sufficient time to fulfill personal and family obligations, to enjoy recreational activities, and to obtain adequate rest; we will monitor time required for “call” on clinical rotations.
- In nurturing both the intellectual and the personal development of students, we pledge to celebrate expressions of exemplary professional attitudes and behaviors, as well as achievement of academic excellence.
- We pledge that we will not tolerate any abuse or exploitation of students.
- We pledge that we will encourage any student who experiences mistreatment or who witnesses unprofessional behavior to report the facts immediately to appropriate faculty or staff, and we pledge that we will treat all such reports as confidential and will not tolerate reprisals or retaliations of any kind.

COMMITMENTS OF STUDENTS

- We pledge our utmost efforts to acquire the knowledge, skills, attitudes, and behaviors required to fulfill all educational objectives established by the faculty.
- We pledge that we will cherish the professional virtues of honesty, compassion, integrity, fidelity, and dependability.
- We pledge to respect all faculty members and all students as individuals, without regard to gender, race, national origin, religion, age, or sexual orientation.
- As physicians in training, we pledge that we will embrace the highest standards of the medical profession and conduct ourselves accordingly in all of our interactions with patients, colleagues and staff. We pledge to respect all individuals without regard to gender, race, national origin, religion, age or sexual orientation.
- In fulfilling our own obligations as professionals, we also pledge to assist our fellow students in meeting their professional obligations.

MEDICAL STUDENT PROFESSIONALISM CODE

As a student of Medicine, I am now a member of the medical community, and as a member, I accept responsibility for my conduct and expect the highest standards of myself. I will also support others in upholding these standards. I understand that the behavior and attitudes of the individual medical student reflects on our classmates, our school, our families, our communities, and our profession. I recognize that it is an honor and a privilege to be a part of the medical profession. As a medical student in lecture, lab, small group, an administrator’s office, support staff’s office, clinic or the hospital, whether patients are present or not, I will act in a professional manner.

I pledge to uphold the following tenets of professionalism:

Honesty and Integrity

- I will demonstrate truthfulness and fidelity in academic and clinical activities, including examinations, evaluation and any other representation of my work.
- I will not participate in or be a party to unfair advancement of academic standing.
- I will be truthful in all interactions with patients, peers and faculty.
- I will be honest in the collection, interpretation and reporting of data pertinent to academic work or patient care.
- I will adhere to the highest standard of integrity in professional relationships, including those with industry representatives.

Respect for Others

- I will demonstrate the highest standards of ethical and professional behavior in the academic and clinical setting.
- I will not discriminate against patients or their families based on race, ethnicity, religion, age, gender, sexual orientation, disability, diagnosis, socioeconomic status or ability to pay.
- I will treat my classmates, staff, those of various medical disciplines and health care team members with respect.
- I will display and expect non-discriminatory behavior toward and from my supervisors, my peers, and staff with whom I work.
- I will respect that faculty have devoted their time and experience to teaching medical students in lectures, labs, small groups, simulations, clinics, and hospitals.
- I will show respect in all oral, written, and e-mail communications, including patient presentations, clinical documentation, course evaluations and challenges to grades or test questions.
- I will protect patient confidentiality, discussing information with no one who does not have legitimate need to know.
- I will uphold the dignity of our patients.
- I will show respect for others by dressing appropriately, including wearing a clean white coat and appropriate identification during all anticipated patient or simulated patient contact. The Professional Appearance Policy for University Hospitals and Clinics can be found online.
Reliability and Responsibility
- I will maintain patient well-being as my main focus and primary responsibility.
- I will fulfill responsibilities assigned to me with careful consideration of consequences to both patients and colleagues, recognizing that my failure to contribute fully increases the workload of others or may compromise the well-being of our patients.
- I will be punctual.
- I will educate myself about the ethical standards of my profession and the legal standards that may apply to my patients.
- I will acknowledge my strengths as well as my limitations, offering assistance when I am able and seeking assistance when necessary.
- I will not be under the influence of alcohol or other drugs while performing academic or clinical responsibilities.

Commitment to Self-Improvement
- I will continue to strive for knowledge, skills, competence, and best practices.
- I will prepare to the best of my ability for class, labs, small groups, clinic, and rounds.
- I will commit to participate through attendance in class, labs, small groups, and clinical settings.
- I will demonstrate willingness to share in the learning process with peers, faculty and staff to promote the student-teacher relationship and to assist others in meeting professional obligations.
- I will seek assistance from colleagues or professionals for any problems that adversely affect my education, quality of patient care or service to society.
- I will willingly assess my progress and identify areas for improvement and issues for continued learning.
- I will incorporate feedback into self-improvement.
- I will effectively use technology to manage information for patient care and self-improvement.
- I will continue to strive to become an honest, responsible and compassionate member of the medical profession, with service to and well-being of the patient as my guide.

Finally, as a student, I will adhere to UMMC policies on professionalism, conduct, personal appearance, patient confidentiality, and compliance.

POLICY ON PROFESSIONAL BEHAVIOR
Students enrolled in the School of Medicine must develop the professional behaviors expected of a physician. Students will be evaluated in the areas of attentiveness, maturity, cooperation, responsibility, personal appearance, respect (for authority, peers, patients and other members of the health care team), communication, judgment, ethics, honesty, morality, as well as other characteristics of professionalism important for a career in medicine.

Each day, a medical student will encounter a number of people who will observe professional or unprofessional behaviors. These people may report compliments or concerns related to the professional behavior of a student through verbal, written, or other reporting mechanisms. Examples of report sources include: faculty members, residents, nurses, other health care providers, other medical center employees, medical school peers, patients, or patient’s family members. Reports of exemplary professional or unprofessional behaviors or concerns should be made to the Associate Dean for Student Affairs or the Vice Dean for Medical Education and can be completed using the electronic student evaluation system E*Value.

When a student receives a report of a concern related to unprofessional behavior, the Associate Dean for Student Affairs or for Vice Dean for Medical Education will meet with the student to discuss the incident.

Following the initial meeting with the Associate Dean for Student Affairs or Vice Dean for Medical Education, the following actions will be taken:
1. If the incident is felt to be minor:
   - The initial interview and counseling session, as well as further monitoring of a student’s performance in the area of concern may suffice.
   - Other Associate Deans in the School of Medicine may be asked to participate in counseling and meeting with the students. The counseling session will be documented in the student’s file in the office of the Associate Dean for Student Affairs or Vice Dean for Medical Education, but the report will not carry forth to future evaluations if the behavior does not recur and if there are no other reports of unprofessional behavior.
   - If the reported incident, upon investigation, is found to be frivolous and not valid, this fact will be clearly documented in the student’s file.

2. If the incident is of serious concern or if there has been a pattern (greater than two) of minor incidents, the Associate Dean for Student Affairs or Vice Dean for Medical Education, or other Associate Deans in the School of Medicine will interview and counsel the student as above and may:
   - Discuss the incident with the Dean’s Council, and recommend that the student be placed on leave of absence.
   - Discuss the incident with the Dean’s Council, and recommend that the student be placed on probation for unprofessional behavior.
   - Discuss the incident with the Dean’s Council, and recommend that the student repeat the course.
   - Discuss the incident with the Dean’s Council, and recommend the student repeat the academic year.
   - Discuss the incident with the Dean’s Council, and recommend the student be dismissed from the School of Medicine.

These recommendations will be presented to the Dean of the School of Medicine for approval.

The Mechanism for Appeal is outlined in the Student Handbook.
A student who returns after a suspension, dismissal, or withdrawal for unprofessional behavior will automatically be on academic probation for at least one academic semester.

A student dismissed from the School of Medicine for unprofessional behavior may appeal for re-admission to advanced standing.

**PROGRAM**

The School of Medicine offers a course of study leading to the degree of Doctor of Medicine. The four-year course leading to the degree of Doctor of Medicine is accredited by the Liaison Committee on Medical Education (LCME).

**DOCTOR OF MEDICINE DEGREE**

The degree of Doctor of Medicine is conferred upon candidates of good moral character who have studied in a LCME-accredited medical school at least four academic sessions, of which the last two sessions must be spent in the regular four-year course of this school; who have properly fulfilled all academic requirements of the medical curriculum; and who have discharged all financial obligations to this school. The diploma is awarded *summa cum laude* to the graduate who ranks first in the class in academic achievement, *magna cum laude* to the graduates who rank second, third, and fourth, and *cum laude* to the graduates who rank fifth through tenth.

**THE CURRICULUM IN MEDICINE**

The purpose of the medical curriculum is to give students with high academic promise the opportunity to develop the knowledge, clinical skills, attitudes and behaviors of excellent physicians. The fundamentals of medicine are taught by a distinguished faculty in a caring environment.

The curriculum in medicine consists of four academic sessions. During the two preclinical years, students learn the sciences basic to the study of medicine and participate in laboratory exercises, small-group discussion, computer-assisted learning, and independent study. The first year (M1) curriculum was revised with the goal of increasing integration, improving the sequencing of course content, and providing earlier clinical experience for medical students in a manner similar to what already occurs in the second year (M2) curriculum. Sophomore students must complete Step 1 of the United States Medical Licensing Examination (USMLE) to be eligible for promotion to the junior year. Students may begin the junior (M3) year on a contingent basis pending receipt of the results of their initial USMLE Step 1.

The third year involves full-time clinical study as students rotate through the major clinical disciplines and selected electives. Students also participate in the team care of patients in the University Hospitals and Clinics, Veterans Affairs Medical Center and various community settings. ACLS and the required technical skills must be completed in the third year. The student must demonstrate skills in specified technical procedures and complete the documentation by the end of the third year.

**MD PROGRAM**

### YEAR 1

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<th>JUNE</th>
<th>JULY</th>
<th>AUGUST</th>
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<td><strong>INTRODUCTION TO THE MEDICAL PROFESSION</strong></td>
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<td><strong>MEDICAL HISTOLOGY AND CELL BIOLOGY</strong></td>
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<td><strong>MEDICAL NEUROSCIENCE</strong></td>
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### YEAR 2

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<td><strong>REMEDIATION AND/OR LABORATORY OR CLINICAL RESEARCH OPPORTUNITIES</strong></td>
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### YEAR 3

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
# MD PROGRAM

## YEAR 4

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## DISTRIBUTION OF INSTRUCTION BY SEMESTER HOURS

### MEDICAL YEAR 1

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<tr>
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<td>ANAT 611</td>
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<tr>
<td>ANAT 613</td>
<td>Medical Histology and Cell Biology</td>
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<tr>
<td>CONJ 611</td>
<td>Medical Neuroscience</td>
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<tr>
<td>ANAT 614</td>
<td>Medical Developmental Anatomy</td>
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<tr>
<td>BIO 610</td>
<td>Biochemistry</td>
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<td>CONJ 612</td>
<td>Introduction to the Medical Profession</td>
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<td>PHYSIO 611</td>
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**TOTAL SEMESTER HOURS**: 64

### MEDICAL YEAR 2

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<tr>
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<tr>
<td>MICRO 611</td>
<td>Medical Microbiology</td>
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<td>PATH 621</td>
<td>General and Systemic Pathology</td>
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<td>PHARM 620</td>
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<td>PSYCH 621</td>
<td>Introduction to Clinical Psychiatry</td>
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**TOTAL SEMESTER HOURS**: 54

### MEDICAL YEAR 3

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<td>OB/GYN 631</td>
<td>Obstetrics and Gynecology</td>
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<td>PED 631</td>
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<td>NEUR 632</td>
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**TOTAL SEMESTER HOURS**: 129

### MEDICAL YEAR 4

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<td>Electives x 4</td>
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**TOTAL SEMESTER HOURS**: 90
In the third year, all students must take all required courses/clerkships, and in addition, students choose three two-week electives from the following:

- ANES 630 Survey of Anesthesia
- CONJ 633 Medical Student Research Program (MSRP)
- CONJ 634 Evolution in Health and Disease
- CONJ 636 Public Health
- DERM 640 Dermatology
- EM 630 Life-Saving Skills
- MED 633 Clinical Endocrinology
- MED 634 Outpatient Care of the Geriatric Patient
- MED 635 Hematology/Oncology
- MED 636 Infectious Disease
- MED 637 Pulmonary Medicine
- MED 638 Rheumatology
- MED 640 Ambulatory Internal Medicine Clerkship
- MED 641 Cardiology
- OPHTH 630 Introduction to Ophthalmology
- ORTHO 630 Orthopedic Surgery
- OTO 630 Otolaryngology
- PATH 630 Pathology: Anatomic Elective
- PATH 631 Pathology: Clinical Elective
- PED 632 Child Development and Behavioral Pediatrics
- PED 633 Pediatric Gastroenterology
- PED 634 Medical Genetics
- PED 635 Pediatric Palliative Medicine
- PED 636 Pediatric Allergy/Immunology
- PED 637 Pediatric Neurology
- RADIO 631 Introduction to Diagnostic and Interventional Radiology
- SURG 631 Introduction to Diagnostic and Interventional Radiology
- SURG 632 University Hospital General Surgery
- SURG 633 Veterans Administration General Surgery
- SURG 634 Cardiothoracic Surgery
- SURG 635 Pediatric Surgery
- SURG 636 Plastic and Reconstructive Surgery
- SURG 637 Surgical Critical Care
- SURG 638 Surgical Research
- SURG 639 Transplant Surgery
- SURG 640 Trauma Surgery
- SURG 641 Urology
- SURG 642 Vascular Surgery
- SURG 651 Medicine
- CONJ 652 Senior Seminar

In the fourth year, all students must take MED 651 Medicine and CONJ 652 Senior Seminar. In addition, students must choose one course each in the following core areas:

**Ambulatory (choose one)**

- EM 680 Emergency Medicine
- FM 651 Family Medicine Preceptorship
- FM 652 Family Medicine Clerkship
- MED 652 Ambulatory Medicine
- MED 673 Ambulatory Internal Medicine In Economically Underserved Areas of Mississippi

- OB/GYN 659 OB/GYN Ambulatory Care
- OB/GYN 663 OB/GYN Fundamentals of Gynecologic and Minimally Invasive Surgery
- PED 651 Pediatric Ambulatory Care
- PED 665 Pediatric Emergency Room

**Pediatrics (choose one)**

- PED 651 Pediatric Ambulatory Care
- PED 652 Pediatric Externship
- PED 653 Neonatal Medicine
- PED 655 Pediatric Cardiology
- PED 656 Pediatric Hematology-Oncology

- PED 663 Pediatric Infectious Diseases
- PED 665 Pediatric Emergency Room
- PED 668 Pediatric Intensive Care
- PED 672 Pediatric Hospitalist
- PED 673 Pediatric Pulmonology

**Surgery (choose one)**

- NS 655 Neurosurgery
- ORTHO 657 Orthopedic Surgery
- ORTHO 658 Outpatient Orthopedic Surgery
- OTO 661 Otolaryngology - Surgical
- SURG 652 General Surgery
- SURG 653 Cardiothoracic Surgery
- SURG 654 Surgical Critical Care
- SURG 655 Pediatric Surgery

- SURG 656 Vascular Surgery
- SURG 657 Trauma Surgery
- SURG 658 Urology
- SURG 660 Plastic and Reconstructive Surgery
- SURG 665 Breast Surgery
- SURG 666 Outpatient Surgery Clinic
- SURG 668 Transplant Surgery

Students must also select four electives in the fourth year. Although any fourth-year course/clerkship may be taken as an elective, no student shall be allowed to count the same course/clerkship (such as PED 651) twice to satisfy the Core Pediatric requirement and the Core Ambulatory requirement. Within the eight required months, no student shall be allowed to take the same course/clerkship twice for credit or be given credit for more than two months of extramural coursework.

Arrangements for extramural courses to be taken for credit shall be made in advance by the student with the appropriate department, the associate dean for student affairs and the registrar.

Students will be certified for graduation only after all requirements for graduation are completed. These requirements include passing the USMLE Step 2 Clinical Knowledge and Clinical Skills Exams.
POLICY ON ACADEMIC STATUS

PROMOTIONS COMMITTEE

The Promotions Committee shall be the primary body to act upon matters of student academic evaluation for promotion, recommendation for graduation, withdrawal, and dismissal. The committee shall consist of faculty members in the appropriate teaching departments in the School of Medicine. The Chairman of the Promotions Committee shall be appointed or designated by the dean. The Promotions Committee shall be responsible for decisions regarding promotion and academic status in each year and for recommendation for graduation to receive the MD degree. These recommendations shall be sent to the Dean, and shall be presented to the Executive Faculty of the School of Medicine for review prior to final implementation or notification of the student.

GRADING

Each department directing a course or clinical block shall specify the requirements of that course or block, and the standards by which students of that course or block are evaluated and shall submit electronically in SAP for each student a numerical percentage grade for that course, with 70.0 as the minimum passing grade.

Each department shall submit electronically in SAP grades in completed courses within 30 days of the final examination. When national testing examinations are to be used in the compilation of final grades, student grades must be submitted within 30 days of receipt of the results of such examinations.

A grade of incomplete will be given when, at the end of a regular course period, additional work is required, due to non-completion of a portion of the course requirements, i.e., lost time or missed examination because of illness, or other extenuating circumstances. A grade of incomplete may be removed by completing missed work, and/or by successful completion of examinations, whichever is appropriate. A grade of incomplete must be removed within twelve months.

A grade below 70.0 is a failing grade, given when a student demonstrates deficiency in required performance, and will require significant make-up work and/or reexamination, or repeating the course.

If a student is required to repeat a portion of a course including examination(s), an entire course, or any entire year, the initial grade and the subsequent grade are both recorded on permanent records of that student, with the initial grade used to compute class academic rank and grade point average (GPA).

At the end of each academic year, a weighted average will be computed to determine a class ranking which may provide a means to determine honors, awards, and scholarships specifying an academic rating as a stipulation, or which may be used in transfers to other schools.

Student performance at UMMC is evaluated according to academic criteria, not on the basis of opinions or conduct in matters unrelated to academic standards. An instructor (defined as one who has responsibility for a class or directed individual study) is given the authority over all matters affecting the academic conduct of that instructional unit, including assignment of grades. The instructor shall be presumed to have assigned the proper grade until it is proven otherwise. The burden of proof to the contrary rests with the student. Students shall have protection against prejudiced or capricious academic evaluation. It is expected that the method of grading by instructors be made clear to students and that instructors be required to justify disputed grades. All records on which grades are based are expected to be retained on file for a minimum of six months following scheduled completion of any instructional unit. Disputes associated with the assignment of grades must be filed with the instructor’s chair/department head and the School of Medicine in writing within 10 working days of the receipt/posting of the grade. The chair/department head will have 10 working days to respond to the student’s dispute. If the student still feels the matter has not been resolved appropriately, a written appeal shall be made to the dean (See MECHANISM FOR APPEAL).

A course instructor may change a reported grade only if the original grade was incorrectly assigned due to clerical or computational error, or if a student meets the requirements for the removal of an “I” grade.

PROMOTION

To be eligible for promotion, a student must achieve a grade of not less than 70.0 in each course, have no incomplete grade, and have a weighted average of 75.0 or higher. Sophomore students must also pass Step 1 of the United States Medical Licensing Examination (USMLE) to be eligible for promotion to the junior year. Senior students must also have passed USMLE Step 2 (clinical knowledge and clinical skills) to be eligible for graduation.

At the end of the year, a student who has no failing grades, but has a weighted average below 75.0, will be required to satisfactorily complete remedial work prior to promotion or graduation; in such a case, remedial work may include the possibility that an entire academic year be repeated.

A student must satisfactorily complete all requirements before being promoted to the next higher academic year and before beginning courses in the next higher academic year. An exception to the latter may temporarily be made when grades are not immediately available as in the case of delayed national test results. Under no circumstances will a student with known and unremediated academic deficiencies be allowed to begin courses in the next higher academic year.

Students with failing grades in one or more courses shall be placed on academic probation, and if not dismissed, will be required to remove probationary status by reexamination, by repeating a course, or by repeating the year, as required by the Promotions Committee, Executive Faculty and Dean. The Promotions Committee shall take into account a student’s overall performance and extenuating circumstances before reaching a final decision in this regard.

Students with incomplete grades in one or more courses must satisfactorily complete these courses as required by course directors prior to promotion to the next academic year. A grade of incomplete must be removed within twelve months.
Students may be required by the Promotions Committee to do remedial work in a course and/or to take a repeat examination(s). Failure upon reexamination in any course requires that student must either repeat the entire course, the entire year, or be dismissed as recommended by the Promotions Committee and the Executive Faculty.

Students who are required to repeat an entire year, shall register for the actual credit hour value of that year, and shall pay the usual fees of a full-time student for the period of time specified.

Sophomore students, satisfactorily completing all course work for the second (M2) year, may begin the junior (M3) year on a contingent basis, pending receipt of the results of their initial USMLE Step 1. Students who fail Step 1 may continue with the junior year, completing the rotation that is in progress if the student is in passing status. At the end of said rotation, such students will be placed in Independent Study for a period not to exceed 10 total weeks. Students who receive a passing score on USMLE Step 1 during this period qualify for promotion and may resume their junior (M3) year on the next available block. A passing score on the repeated attempt must be received before a student can resume their junior (M3) year and begin clinical work. No junior (M3) medical student will be allowed to spend more than 10 total weeks in Independent Study without being required to repeat the junior (M3) year.

Students who fail to receive a passing USMLE Step 1 score and miss more than 10 total weeks of the junior (M3) year will be placed on leave and be required to repeat the junior (M3) year in its entirety. To be eligible for a repeated attempt of the junior (M3) year, students must take USMLE Step 1 by April 1, allowing them to restart the junior (M3) year from its beginning with the next class. Repeating students will also be required to complete a 30 day clinical refresher course held during the month of May. Students who fail to follow this process will be dismissed from the School of Medicine.

Senior students, satisfactorily completing all course work for graduation but failing to receive a passing score on USMLE Step 2, will be given one year beyond the original expected date of graduation to pass Step 2 and to receive their degree. Students failing to pass Step 2 within that year are no longer eligible for the MD degree without additional course work at this school. Such additional course work shall consist of a remedial third (M3) year of medical school, which must be taken and passed in its entirety with all examinations. Any failed course or National Board examination in the remedial year may not be repeated, and such a failure will result in the student’s dismissal from medical school. Following satisfactory completion of the entire remedial year, students again become eligible for the MD degree and have one additional year to pass the USMLE Step 2. Thereafter, students are no longer eligible for the MD degree and will be dismissed from the School of Medicine.

**LEAVE OF ABSENCE**

Leave of absence from medical school may be granted by the dean or his/her administrative designee under the following conditions:

1. For students in good academic standing to pursue training as a medical scientist (i.e., to pursue research experience or to complete a Master’s or PhD degree).
2. Leave of absence for students with academic, personal, financial or medical problems may be granted in special circumstances. If the leave of absence is granted during the academic year for the remainder of that academic year with the potential of returning to repeat the entire academic year, final grades in courses which have been completed will be recorded in the Office of Student Records and Registrar. Grades in courses in progress shall be reported to the Office of Student Records and Registrar as “withdrawn.”

**WITHDRAWAL**

A student with academic, personal or health problems precluding satisfactory performance or continued enrollment which require more than one academic semester of leave, may be allowed to withdraw.

At the time of withdrawal, final grades in courses which have been completed will be recorded in the Office of Student Records and Registrar. Grades in progress shall be returned to the Office of Student Records and Registrar with a determination of “withdrawn.”

Any withdrawal by a student shall be presented to the appropriate Promotions Committee, which shall determine conditions under which a student may be readmitted, if at all, and shall make such recommendations to the dean and Executive Faculty. The student shall be informed of readmission eligibility status and requirements.

Students who voluntarily withdraw may not be readmitted except as a beginning first-year student (i.e., no advanced standing) if over two years have elapsed since withdrawal. If two years or less have elapsed since withdrawal, a student may be admitted to advanced standing but must repeat entirely any course/block not previously completed. Alternatively, depending on academic standing and time elapsed, a student may be required to repeat the entire academic year from which he/she withdrew.

In the event of withdrawal prior to the end of the first semester of the first year, the student will not be eligible for readmission, except that he/she may apply for admission to the first year class as any other new student.

A student who withdraws and has been declared eligible for readmission must apply for readmission by petitioning the dean, stating the reasons for his/her withdrawal and why he/she now believes he/she is able to pursue academic studies successfully. This petition shall become a part of the student’s permanent record.

**DISMISSAL**

A student dismissed from the School of Medicine shall not be eligible for readmission in advanced standing. Such students shall not be precluded from applying for readmission to the first-year class as any other new candidate. Dismissal from the School of Medicine may be for:

1. Academic failure. Included are: (a) students who have academic deficiency in the current school year; (b) students who have a repeat failing grade in any repeated course or block or who failed any course or block in a repeated year; (c) other failure as determined by the Promotions Committee.
2. Health reasons. In this category are students who by reason of health, including behavioral and psychiatric disorders, are precluded from satisfactory academic performance or satisfactory performance as a physician in the practice of medicine.

3. Conviction of a felony.

4. Conduct deemed to be other than honorable or ethical (i.e., cheating on examination, taking credit for work not one's own, etc.)

5. Any student who commits an unlawful act on or off the Medical Center or whose conduct discredits the Medical Center in any way will be subject to disciplinary action, up to, and including, dismissal.

MECHANISM FOR APPEAL
The Executive Faculty shall act as an appeal body for all academic and/or unprofessional behavior matters that concern grades, promotion, conditions imposed by suspension, dismissal or withdrawal. Students shall be notified of adverse academic decisions such as requirements for remedial work, conditions upon withdrawal, or dismissal. Each student shall be notified of his or her right to appeal before the executive faculty to appeal such decisions. Any request for appeal must be by written petition to the dean within 14 days of the recommendation of the sanction. Failure to make a written appeal within this 14-day time period shall constitute a waiver of the appeal right and shall result in the sanction becoming final as recommended. A member of the faculty also may appeal to the executive faculty on behalf of a student. During an appeal hearing before the executive faculty, the student shall be permitted, at his/her expense, to have an adviser or legal counsel represent him or her at the hearing and through all other stages of the disciplinary process. The role of the counsel shall be limited to an advisory capacity only. He/she will not be permitted to make opening or closing statements/questions, choose witnesses, or make concluding statements on his/her behalf. The student is entitled to present witnesses or other evidence, question opposing witnesses, and make opening and concluding statements on his/her own behalf.

The Executive Faculty shall record all hearings, which record shall be preserved until the time for all avenues of appeal available to the student shall have expired. The executive faculty shall have the right to approve the recommended sanction, impose a lower sanction or no sanction, or impose a harsher sanction than recommended. The executive faculty shall render a written decision within ten (10) working days of the completion of the hearing, and shall notify the student with a copy of the written decision. All decisions by the Executive Faculty concerning academic matters are final. The student shall have the right to file a procedural appeal in writing to the Associate Vice Chancellor for Academic Affairs/Provost within five (5) working days. In the case that a procedural violation is found to have occurred, the case will be returned to the point of procedural issue and readressed.

ADMISSIONS

PRE-APPLICATION COUNSELING
Students wanting to become a doctor should visit the Association of American Medical Colleges' (AAMC) web site, "Considering a Medical Career." The UMMC Medical School Admissions website contains useful information including "Pathway to Medical School," "Interview Workshop," "Reasons to Attend this Medical School" and "Photos of Medical Student Life," which outline medical school education, preparation, useful links, a timeline for applying, degree programs offered by this school, the selection process, entering class statistics and some reasons why you should attend the University of Mississippi School of Medicine.

Pre-application counseling is available for prospective applicants and post-application counseling is available for unsuccessful applicants. To make an appointment, call the medical school admissions office (601-984-5010). After the Admissions Office confirms an appointment, a student seeking pre-application counseling will be given a password to access and submit an on-line Pre-application Counseling Form on which background information is obtained that will be useful during counseling. E-mail communication with the Admissions Office is encouraged.

ADMISSION TO THE MEDICAL CURRICULUM
Details about the admissions process, including deadlines and links to the application and admission test, can be found at the school's web site; select the "admission" tab.

The authority to select applicants for admission to the School of Medicine is vested in the Admissions Committee. The committee, appointed by the dean of the School of Medicine, is chaired by the associate dean for medical school admissions and is composed of members of the basic science and clinical faculty. No student may enroll for courses in the School of Medicine, either as a regular full-time student or as a special part-time student, without being admitted by the committee.

Correspondence regarding admission (such as requests for counseling and application status updates) should be addressed to: Associate Dean for Medical School Admissions, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505; telephone (601) 984-5010; Fax (601) 984-5008; E-mail AdmitMD@umc.edu.

Letters of evaluation must be submitted directly to the American Medical College Application Service (AMCAS), VirtualEvals or Interfolio.

Official admissions records (such as transcripts) are handled and filed in the Office of Student Records and Registrar and become the property of the School of Medicine. They cannot be returned to the applicant or forwarded to another school or individual. Correspondence regarding official records should be addressed to the Office of Student Records and Registrar, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505, telephone (601) 984-1080.

Selection of applicants is made on a competitive basis, without regard to race, creed, sex, color, religion, marital status, sexual orientation, age, national origin, disability or veteran status. Qualified handicapped students will be considered in relation to the Technical Standards which follow.
Because the MD degree awarded to a senior medical student signifies that the holder is prepared for entry into the practice of medicine within postgraduate training programs, it follows that graduates must have the knowledge and skills to function in a broad variety of clinical situations and to render a wide spectrum of patient care.

If they are to function in this manner, medical students must have somatic sensation and the functional use of the senses of vision and hearing, and equilibrium. They must have sufficient exterceptive sense (touch, pain and temperature), sufficient proprioceptive sense (position, pressure, movement, stereognosis and vibratory) and sufficient motor function to perform the activities described in the sections that follow. Students also must be able to consistently, quickly, and accurately integrate all information received by whatever sense(s) and have the intellectual ability to learn, integrate, analyze and synthesize data, and the appropriate behavioral and social skills for patient interaction.

In accordance with the Americans with Disability Act (ADA) of 1990 and ADA Amendments Act of 2008 (http://www.ada.gov/pubs/ada.htm), technological compensation can be made for some handicaps in certain of these areas, but the student should be able to perform in a largely independent manner.

**Observation** - The medical student must be able to observe and participate in demonstrations and experiments in the basic sciences, including, but not limited to, physiologic and pharmacologic demonstrations in animals, microbiologic cultures, and microscopic studies of microorganisms and tissues in normal and pathologic states, and anatomical specimens. The student must be able to observe a patient accurately at a distance and close at hand. Observation necessitates the functional use of the senses of vision, hearing, and somatic sensation. It is enhanced by the functional use of the sense of smell.

**Communication** - A medical student should be able to speak, to hear, and to observe patients in a sensitive manner. A medical student should be able to elicit information, describe changes in the patient’s mood, activity and posture, and perceive nonverbal communications. The student also must be able to communicate effectively in oral and written form with all members of the health care team.

**Motor** - Students should have sufficient motor function to obtain information from patients by palpation, auscultation, percussion and other diagnostic techniques; to do basic laboratory tests; to carry out diagnostic procedures; to read electrocardiograms and radiographs; and to conduct anatomical dissections in the basic sciences and clinical years. A student should be able to execute the motor movements reasonably required to provide general and emergency care to patients. Examples of emergency treatment reasonably required of physicians are cardiopulmonary resuscitation, administration of intravenous medication, application of pressure to stop bleeding, opening of obstructed airways, suturing of simple wounds and performance of simple obstetrical maneuvers. Such actions require coordination of both gross and fine muscular movements, equilibrium and functional use of the senses of touch and vision.

**Intellectual-Conceptual, Integrative, and Quantitative Abilities** - These abilities include measurement, calculation, reasoning, analysis and synthesis. Problem solving, the critical skill demanded of physicians, requires all of these intellectual abilities. In addition, the student must be able to comprehend three dimensional relationships and to understand the spatial relationships of structures.

**Behavioral and Social Attributes** - A student must possess the emotional health required to fully use his or her intellectual abilities; to exercise good judgment; to promptly complete the responsibilities attendant to the diagnosis and care of patients; and to develop mature, sensitive and appropriate relationships with patients. Students must be able to tolerate physically taxing workloads and to function effectively under stress. They must be flexible and able to adapt to changing environments, and capable of functioning in the face of uncertainties inherent in the clinical problems of many patients.

**COMMITMENT TO DIVERSITY**

The University of Mississippi Medical Center’s Mission Statement (see Medical Center General Information section) states in part:

The Medical Center offers equal opportunity in all its programs and services regardless of race, creed, sex, color, religion, marital status, age, sexual orientation, national origin, disability or veteran status. Mississippi’s population is culturally diverse. Most Mississippians trace their own ancestral roots to the British Isles, the continent of Europe or the continent of Africa. The state also has many citizens of American Indian, Asian or Pacific Island and Hispanic descent. In policy and practice, the institution encourages and actively recruits applicants from all segments of the state’s population. The Medical Center is committed to maintaining an educational environment that fosters respect for and sensitivity to individual differences; promotes personal and professional developments, and gives all students the opportunity to succeed, regardless of ethnicity, gender, sexual orientation, age, creed, national origin or socioeconomic status.

The University of Mississippi School of Medicine adheres to this mission statement and is committed to fostering an inclusive environment where the individual differences among us are appreciated and recognized as a source of strength. The School of Medicine’s own Diversity Statement is included here and is a fundamental element of all we do.

The School of Medicine is proud to be part of Mississippi’s only academic health science campus. Fulfillment of the school’s mission requires student, faculty, administration and staff respect for and appreciation of the rich cultural heritage and growing diversity of the citizens of Mississippi, including their:

- Demographic attributes (race, ethnicity, gender, gender identity, sexual orientation, age, educationally or financially disadvantaged background, socioeconomic status, marital and family status, rural, state and national origin, languages spoken, religious and spiritual beliefs, and culture),
- Personal attributes (including integrity, communication, skills and abilities, disabilities work habits, interactions with people, desire to learn) and
- Life experiences (including healthcare, community service, leadership, teamwork, and employment).
Diversity, inclusion and cultural humility enrich the teaching and learning environment; students think more vigorously and imaginatively, enhancing their preparation as citizens and professionals committed to providing all patients, including those from underserved populations, access to quality and equitable healthcare that can ameliorate the healthcare disparities of Mississippian and the nation through medical education, biomedical research and patient care.

Medical students are not required to participate in any procedure or service for which they have religious objection. Students must attend all required educational sessions whether or not they have religious objection to the material discussed and are responsible for the educational content of the session. In addition, students may not refuse to provide care to a patient based on religion, gender, sexual orientation, race, patient diagnosis, or any other patient personal characteristic. It is required that students communicate with the course or clerkship director at the beginning of the course or clerkship when they are aware that procedures to which they object may occur.

ADMISSIONS CRITERIA

Medical school admissions requirements nationwide have for the most part remained unchanged for decades. While students who have achieved them performed well in medical school, these requirements have often burdened and even discouraged non-science majors from applying to medical school and they impeded creativity in undergraduate premedical education. Furthermore, they fail to convey the need to cover modern topics. After considering the ongoing transformation in medical school admissions, the array of admissions requirements used by medical schools nationwide and the type of applicant this medical school seeks to educate, an Admissions Task Force appointed by the vice dean of the School of Medicine (SOM) concluded that 1) it was in the best interest of this medical school to abandon the current list of prescribed courses; and 2) to afford applicants flexibility in meeting requirements for admission. Recommendations of the Admission Task Force were endorsed by the SOM Admissions Committee and approved by the Council of Deans.

Dates for phasing out current admissions requirements, phasing in new admissions criteria options (detailed in chart) and when Medical College Admissions Test (MCAT®) scores from the current (MCAT1991) and forthcoming (MCAT2015) exams will be acceptable are summarized in the following table. Further explanation of each admissions criteria option follows. Starting with the 2015 entering class, applicants must indicate on the SOM Secondary Application which criteria they wish to use to qualify for admission and courses taken or planned that fulfill that option.

<table>
<thead>
<tr>
<th>Medical School Entering Class*</th>
<th>Current Prerequisites</th>
<th>MCAT 1991</th>
<th>MCAT 2015</th>
<th>End-Point Courses</th>
<th>Course-Competency Maps</th>
<th>Novel Curricula</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2016</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2017</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2018</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>2019</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Application must be submitted during previous calendar year

CURRENT ADMISSIONS REQUIREMENTS

Acceptable through the 2017 entering class

Students, in consultation with a premedical adviser, should develop proficiency in a specific major area of study while in undergraduate school and acquire a background in the humanities and social sciences. Non-science majors with an interest in medicine are encouraged to apply.

Course credits are acceptable from only accredited U.S. colleges and universities. The applicant must show credit for at least three years of college work, totaling fewer than 90 acceptable semester hours (excluding unacceptable courses described below), completed in an accredited college. These minimum 90 hours consist of courses required for entrance to this medical school and other courses (referred to here as electives) required by an undergraduate institution for a baccalaureate degree.

Strong preference is given to applicants who will have completed all requirements for a baccalaureate degree prior to entering medical school. For those applicants applying with the minimum 90 acceptable semester hours, a maximum of 65 semester hours of credit from an accredited community college may be applied toward the minimum 90 acceptable semester hours required for admission. College graduates may complete additional post-baccalaureate coursework to satisfy prerequisites at any accredited U.S. college or university, regardless of the number of community college credit hours applied toward their completed undergraduate degree.

Required courses for entrance into this medical school include one academic year each of four core science courses with laboratories (biological science, general chemistry, organic chemistry and physics) plus one year each of mathematics, English and advanced science.

All required courses must have a college grade; therefore, advanced placement credit cannot meet these requirements. If an applicant has advanced placement credit for any required course, he/she can fulfill the requirement by taking either that course for a grade or a higher-level course in the same department for a grade. The minimum 90 acceptable semester hours will be completed by other course work (such as approved electives described below).

When evaluating course work, the Admissions Committee focuses on courses that contribute to the biology, chemistry, physics and math (BCPM) grade point average (GPA) calculated in the American Medical College Application Service (AMCAS®) application. Courses that contribute to the BCPM GPA are determined by AMCAS® course classification; however, when determining whether or not a science or math course will be acceptable as a prerequisite for this medical school, Student Records and Registrar examines the course number for a relevant prefix (such as BIOL, CHEM, PHYS or MATH). Required core science, advanced science and math courses must be taken in either science or math departments; thus, courses with either a related name or BCPM course classification but with a course number that contains
another prefix (including but not limited to BESS, CLS, COMP, ENGI, HEAL, MEDC, NPSC, PHARM, PHCL) are not acceptable as requirements for entrance to this medical school.

There is no time limit on the validity of a baccalaureate degree; however, the Admissions Committee has concerns when prerequisite courses have been taken 10 or more years ago. If a required core science course (biological science, general chemistry, organic chemistry and physics) was taken 10 or more years ago, it should be repeated.

If all required core science courses were taken 10 or more years ago, the applicant should take at least 32 semester hours of BCPM course work to convince the committee that they are currently capable of sustaining the rigors of learning in a classroom environment. Such applicants are encouraged to retake the required core science courses; however, this may be substituted by either 32 credits of upper level undergraduate BCPM courses beyond the advanced science requirement or 32 credits of graduate BCPM courses (see chart). In the evaluation of applicants for interviews, the admissions committee initially considers only those courses that contribute to an undergraduate BCPM GPA; however, post-baccalaureate and graduate BCPM GPAs are considered later in the interview screening process.

![Table]

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
<th>Substitute</th>
<th>Non-Traditional Applicant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biological Science</td>
<td>8</td>
<td>Equal credits of higher level BIOL</td>
<td>Must take pre-requisites described for Traditional Applicant</td>
</tr>
<tr>
<td>Freshman Chemistry</td>
<td>8</td>
<td>Equal credits of higher level CHEM</td>
<td>But if any core pre-requisite course(s) is 10 years old, retake that course(s).</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>8</td>
<td>Equal credits of higher level CHEM</td>
<td>If ALL pre-requisites 10 years old, recommend re-taking 32 core credits; however, accept 32 credits of either upper level BCPM beyond Advanced Science requirement or graduate BCPM.</td>
</tr>
<tr>
<td>Physics</td>
<td>8</td>
<td>Equal credits of higher level PHYS</td>
<td></td>
</tr>
<tr>
<td>Core</td>
<td>32</td>
<td>Other writing intensive courses (writing for scientists, honors, courses, specifically petitioned, thesis credits)</td>
<td>32</td>
</tr>
<tr>
<td>English</td>
<td>6</td>
<td>No need to repeat</td>
<td>No need to repeat</td>
</tr>
<tr>
<td>Math (Trigonometry, Algebra)</td>
<td>6</td>
<td>3 credits Calculus</td>
<td>No need to repeat</td>
</tr>
<tr>
<td>Advanced Science</td>
<td>6</td>
<td>Any junior or senior level BCPM courses</td>
<td>No need to repeat</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>Total</td>
<td>50</td>
</tr>
<tr>
<td>Total</td>
<td>65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Required Core Sciences** - Required courses in biological science, general chemistry, organic chemistry and physics must be taken in science departments (course number prefix must be BIOL, CHEM or PHYS) and include formal laboratory work. If a department spreads the content of a typical two-semester required science course over three semesters, students enrolled at that institution must take all three semesters to satisfy the course requirement. The advanced science courses (see below) must be taken in a senior college.

**Mathematics** - A minimum of three semester hours of college algebra and three semester hours of trigonometry is required. A two-semester course, including algebra, trigonometry, analytical geometry and calculus, also is acceptable. Students who qualify by placement tests to enter calculus I directly can satisfy their mathematics requirement with a three- or four-hour calculus I course; the remaining two or three hours required to meet the 90-hour minimum may be met with a recommended elective course.

**English** - The usual freshman college course of six semester hours in English composition or literature is required. The applicant is urged to take an advanced course in English composition.

**Required Advanced Science** - These courses must be taken at a senior college science or math department (course number prefix must be BIOL, CHEM, PHYS or MATH). Examples of advanced science courses that are relevant to medical school are comparative anatomy, embryology, genetics, histology, physiology, microbiology, biochemistry, quantitative analysis, physical chemistry, calculus II, III or IV, differential equations and advanced physics. It is recognized that laboratories are not offered with all advanced sciences.

**Approved Elective Courses** - A partial list of recommended elective courses includes advanced English, sociology, psychology, philosophy, history, geography, foreign language, computer science, fine arts (up to six semester hours) and selected advanced courses in mathematics, chemistry, physics and biology.

**Unacceptable Courses** - None of the 90 semester hours of minimum collegiate requirements listed or described or recommended above may be met by the following: correspondence courses; courses in physical training, military science, or dogmatic religion; courses in mathematics or science designed for non-science majors; or course credit granted without college-level testing. A limited number of telecourse credits may be accepted for liberal arts electives; however, none will be accepted for required science and math courses. Courses taken outside science and math departments (course prefix other than BIOL, CHEM, PHYS or MATH) are not acceptable as required courses.

**Credit Transferred from a Community College** - For applicants who do not have a baccalaureate degree, 65 semester hours of credit from an accredited community college is the maximum that may be applied toward minimum 90 acceptable semester hours required for admission. For applicants who have a baccalaureate degree, there is no limit to the number of hours one can acquire from a community college to satisfy prerequisite coursework. The Office of Student Records and Registrar will select those courses that count toward satisfaction of prerequisites.
Completion of Degrees - An applicant enrolled in a degree-granting program at any college or university is expected to complete the requirements for and earn that degree before enrollment in medical school. Unless prior approval has been granted by the admissions committee, this applies to both undergraduate and graduate degrees.

NEW ADMISSIONS CRITERIA OPTIONS
Available starting with the 2015 entering class

Students, in consultation with a premedical adviser, should develop proficiency in a specific major area of study while in undergraduate school and acquire a background in the humanities and social sciences. Non-science majors with an interest in medicine are encouraged to apply.

Course credits are acceptable from only accredited U.S. colleges and universities. The applicant must show credit for at least three years of college work, totaling not fewer than 90 acceptable semester hours. These minimum 90 hours consist of courses required for entrance to this medical school and other courses required by an undergraduate institution for a baccalaureate degree. None of the 90 semester hours of minimum collegiate course work may be met by the following: correspondence courses; courses in physical training, military science, or dogmatic religion.

Strong preference is given to applicants who will have completed all requirements for a baccalaureate degree prior to entering medical school. For those applicants applying with the minimum 90 acceptable semester hours, a maximum of 65 semester hours of credit from an accredited community college may be applied toward the minimum 90 acceptable semester hours required for admission. College graduates may complete additional post-baccalaureate coursework to satisfy prerequisites at any accredited U.S. college or university, regardless of the number of community college credit hours applied toward their completed undergraduate degree.

An applicant must indicate on the SOM Secondary Application which of the following three admissions criteria options they wish to use to qualify for admission and courses taken or planned that fulfill that option.

For all options described below, the admissions committee evaluation of academic performance will not be limited to these courses; an applicant’s entire academic record is subject to evaluation.

End-Point Courses - The objective of this option is to describe what courses need to be taken; but, not the path to achieve this end point. Undergraduate institutions will decide acceptable pathways to these end-point courses that may include traditional course requirements, condensed or novel requirements, AP credit and online course work.

Any applicant selecting this option must document on a transcript that required end-point courses have been taken; well prepared applicants may also indicate which recommended courses have been taken.

The following courses are required:
- Life Sciences: 2 semesters of any combination of the following:
  - Zoology
  - Physiology
  - Embryology
  - Immunology & Serology
  - Microbiology
  - Neuroscience
- Biochemistry: 1 semester
- Physics: 2nd semester

Familiarity with the following subjects is recommended; content might be acquired by taking courses by that name, courses with different names but similar content or self-study:
- Algebra
- Statistics
- Psychology
- Sociology

Course-Competency Maps - Applicants eligible for this admissions criteria option are limited to those enrolled at institutions with departments that have constructed course-competency maps that have been submitted to the School of Medicine and approved by the Admissions Committee. The current list includes:
- Millsaps College - Biology, Chemistry & Biochemistry, Physics
- Mississippi College - Biology, Chemistry & Biochemistry, Mathematics Computer Science, Physics
- Mississippi State University - Agricultural & Biological Engineering, Biochemistry & Molecular Biology, Biology, Chemistry, Mathematics, Physics
- University of Mississippi - Biology, Chemistry & Biochemistry, Mathematics, Philosophy & Religion, Physics & Astronomy

The current model for this option is derived from 2010 Howard Hughes Medical Institute - Association of American Medical Colleges report, Scientific Foundations for Future Physicians. These competencies or their source may change.

To qualify for admission, an applicant must complete any combination of courses, whose combined content has been mapped to cover the 37 learning objectives that can provide the following eight entering medical student competencies:
- E1 - Apply quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world.
- E2 - Demonstrate understanding of the process of scientific inquiry, and explain how scientific knowledge is discovered and validated.
- E3 - Demonstrate knowledge of basic physical principles and their applications to the understanding of living systems.
E4- Demonstrate knowledge of basic principles of chemistry and some of their applications to the understanding of living systems.
E5- Demonstrate knowledge of how biomolecules contribute to the structure and function of cells.

E6- Apply understanding of principles of how molecular and cell assemblies, organs, and organisms develop structure and carry out function.
E7- Explain how organisms sense and control their internal environment and how they respond to external change.
E8- Demonstrate an understanding of how the organizing principle of evolution by natural selection explains the diversity of life on earth.

Novel Curricular Tracks - Applicants eligible for this admissions criteria option are limited to those enrolled at institutions that have devised novel premedical curricula that have been submitted to the School of Medicine and approved by the Admissions Committee. Institutions currently developing Novel curricula include Millsaps College and the University of Mississippi.

To qualify for admission, an applicant must complete an approved track of multidisciplinary courses that integrate the learning objectives that can provide entering medical student competencies.

Indication of Courses that Fulfill Admissions Criteria Options - Upon receipt of a verified AMCAS® application, the medical school admissions office will email an applicant the URL for the SOM Applicant Portal. This online tool provides access to the Secondary Application to this medical school which, among other information, will ask applicants to select the admission criteria option they wish to use to qualify for admission and courses taken or planned that fulfill that option. Options include the following:

- Prescribed Course Requirements (acceptable through 2017 entering class)
  - Applicants must list the name and number of courses that fulfill the requirements
- End-point Courses
  - Applicants must list the number and name of courses taken or planned that fulfill this option
  - Applicants will be given the option to list the number and name of courses taken or planned that are recommended under this option
- Course-Competency Maps
  - Applicants must list the number and name of courses taken and planned whose content maps to learning objectives that can provide the desired competencies.
  - This option applies only to students at schools with course-competency maps previously approved by the SOM admissions committee.
- Novel Curricula
  - Applicants must list the number and name of courses taken or planned that comprise eligible novel curricula. This option applies only to students at schools with novel curricula previously approved by the SOM admissions committee.

Non-Traditional Applicants - There is no time limit on the validity of a baccalaureate degree; however, the Admissions Committee has concerns when relevant courses have been taken 10 or more years ago. Required courses should be recently completed or current regardless of the option chosen. End-point courses (life sciences, biochemistry or physics) or any course used to meet the course-competency map option that were completed 10 more years prior to applying are not acceptable. Applicants have the choice of either repeating 10 year old courses or completing new coursework to satisfy the selected admissions option.

Conditional Acceptance - Acceptance to this medical school is conditional; the Admissions Committee may rescind an offer of acceptance at any time before matriculation if an applicant fails to maintain expectations upon which the acceptance was based. Examples include, but are not limited to, a significant decline in academic performance, failure to complete prerequisites or other course work and degrees in progress, patterns of unprofessional behavior and incidents discovered in a criminal background check.

RESIDENCY CLASSIFICATION
The Office of Student Records and Registrar is responsible for determining whether or not an applicant meets the requirements for being a legal resident of Mississippi for the purpose of enrollment. When requested, applicants must complete a Request for Review of Residency Classification form and provide copies of a driver’s license, car registration, car tag, voter registration card, proof of in-state banking and proof of a permanent in-state domicile. A copy of the Request for Review of Residency Classification form can be acquired from the School of Medicine web page or the Office of Student Records and Registrar (601-984-1080).

ADMISSIONS STANDARDS AND LEGAL POLICY
For admission purposes, the School of Medicine at the University of Mississippi Medical Center gives preference to residents of the State of Mississippi, as defined by Miss. Code §§ 37-103-7, 37-103-13 and IHL Policy 610. As such, the School of Medicine currently accepts admission applications only from individuals who are U.S. citizens or lawful permanent residents. The School of Medicine may choose to not accept applications from students who cannot demonstrate residency as defined by Miss. Code § 37-103-7 and 37-103-13. In recent years, it has not been possible to admit nonresidents of the State of Mississippi.

MEDICAL SCHOOL APPLICATION AND ADMISSION TEST
The Association of American Medical Colleges (AAMC) web page for student services provides valuable information on medical schools and electronic access to the following:

- American Medical College Application Service (AMCAS®) Applications – All applications must be made through AMCAS®, a nonprofit, centralized application processing service for applicants to the first-year entering classes at participating U.S. medical schools. The AMCAS® application is available only online. More information may be obtained by writing to the American Medical College Application Service, 2501 M Street, NW, Lbby-26, Washington, DC 20037-1300 or by e-mail: amcas@aamc.org.
• Medical College Admission Test (MCAT®) - All applicants for admission to the School of Medicine must take the MCAT®. The test is computer-based, offered at specific test sites only and offered multiple times each year. By following a well-planned schedule, the premedical student should be ready to take the test no later than the spring of the junior year and release scores to all schools to which they intend to apply. Selection of applicants for the medical school class entering in a given calendar year will be based, in part, on MCAT® scores acquired during the previous four calendar years only. Selection of alternates may include consideration of MCAT® scores acquired in the same calendar year.

• MCAT® information (including test sites, registration deadlines and testing dates) and registration may be accessed online. This information can also be acquired from most college premedical advisers or writing to the MCAT® Program Office, P.O. Box 4056, Iowa City, Iowa 52243-4046.

• Fee Assistance Program (FAP) - The AAMC FAP is designed to be used in conjunction with registration for the MCAT® and/or for application to medical school through the AMCAS®. The FAP is provided to assist individuals with extreme financial limitations whose inability to pay the full MCAT® registration fee or the AMCAS® application fee would prevent them from taking the examination or applying to medical school. Further information and the FAP application are listed at the website. The supplemental application fee for this medical school will be refunded for applicants who are approved for FAP.

• Nonacademic and Personal Preparation - Applicants are advised that in addition to academic preparation, MCAT® performance, and interviews, the Admissions Committee seeks evidence of: health related experiences, volunteer/community service activities, and leadership as well as other notable time commitments such as employment, athletics, research, hobbies, etc. Experience (volunteer or paid) in a health related environment is strongly encouraged. These activities should be listed and explained by the applicant in the Work/Activities section of the AMCAS® application.

APPLICATION DEADLINES
Applicants are advised that everyone who completes a file by published program deadlines will be considered for admission; however, since those who submit applications and complete files early may have an advantage in the selection process, the following timeline is strongly suggested. During the fall of the junior year, traditional applicants (who plan to enter medical school the August after graduation from a four-year baccalaureate degree-granting program) are recommended to begin the timeline below. Non-traditional applicants should consider a similar timeline beginning about two years before the anticipated fall enrollment in medical school.

- September - Begin preparation for Medical College Admissions Test (MCAT)
- March - Take 1st MCAT
- May - Request transcripts & faculty evaluation letters
- June - Complete and submit on-line American Medical College Application Service (AMCAS) application
- Summer - Repeat MCAT, if needed
- September - Interviews begin

The tables that follow summarize dates for submitting required documentation to the Association of American Medical Colleges (AAMC) and the University of Mississippi Medical Center (UMMC). Details for the Early Decision Program (EDP), Regular Decision Program (RDP) and Combined MD/PhD Program follow.

Applicants should submit all documents as early as possible and well ahead of deadlines. Applicants alone are solely responsible for ensuring all required documents reach the appropriate offices by the specified deadlines. An applicant file lacking any item on the specified deadline will be considered incomplete and ineligible for consideration for admission. The Associate Dean for Medical School Admissions may, for good cause shown, grant individual deadline extensions if the applicant can document that circumstances beyond his/her control were encountered that prevented timely arrival of required documentation. To monitor timely document receipt, an applicant should:

- Contact AAMC to confirm his/her AMCAS® application is complete and transcripts for all college course work have been received.
- Access the School of Medicine’s restricted Secondary Application System to confirm that the secondary application, supplemental application fee, transcripts for all college course work and required faculty Letters of Evaluation have been received.
- An applicant’s file for this medical school is not considered complete until all of these items have been received. Due to the volume of material received, anticipate a few days delay between receipt and posting of information to this site.
- For questions pertaining to transcripts, contact the Office of Student Records and Registrar.
- For everything else, contact the Associate Dean for Medical School Admissions.

EARLY DECISION PROGRAM (EDP)
Students interested in early acceptance may apply for admission under the EDP. Two important aspects of the EDP should be understood: (1) the applicant can apply to only one school of choice until a decision is received and, if accepted, must attend that school; (2) if not accepted under the EDP, the applicant may be reconsidered as a RDP applicant by that school and is automatically eligible to apply to other schools. Since EDP decisions are rendered before most RDP applications are reviewed, only above average applicants are competitive for the EDP. The typical entering class at this medical school has an undergraduate biology, chemistry, physics and mathematics (BCPM) cumulative grade point average (GPA) of 3.6 and MCAT® scores that average 9 in verbal reasoning, physical science and biological science.
Supplemental letters should be kept to a minimum. When appropriate, a supplemental letter from a physician the applicant has shadowed or current employer may be considered by the admissions committee; but it does not replace required faculty evaluations. All letters of evaluation must be submitted directly to the American Medical College Application Service (AMCAS).

Both AMCAS® and the Medical Center require receipt of specific documents by specified deadlines summarized above. Applicants who wish to apply for the EDP must submit a web-based AMCAS® application and transcripts of all undergraduate and post-baccalaureate work to AAMC. In addition, EDP applicants must submit a web-based Secondary Application to UMMC, transcripts of all undergraduate and post-baccalaureate work to the Office of Student Records and Registrar and three faculty letters of evaluation to the associate dean for medical school admissions. A final decision on EDP applications will be rendered on or before October 1.

REGULAR DECISION PROGRAM (RDP)

Students may simultaneously apply for admission to multiple medical schools under the RDP. Both AMCAS® and the Medical Center require receipt of specific documents by specified deadlines summarized above. Applicants wishing to apply for the RDP may begin on June 1 and must submit a web-based AMCAS® application by October 15 and transcripts of all undergraduate and post-baccalaureate work to AMCAS® by October 29. In addition, RDP applicants must submit a web-based Secondary Application to UMMC, transcripts of all undergraduate and post-baccalaureate work to the Office of Student Records and Registrar and three faculty letters of evaluation to the associate dean for medical school admissions. Applicants accepted for admission under the RDP will be notified on a rolling basis between October 16 and March 15; all other decisions will also be rendered by March 15. Applicants who hold multiple acceptances must inform the school of their decision by May 15.

DATES FOR RDP

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<tr>
<th>Submit to</th>
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<td>AAMC</td>
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<td>Transcripts¹</td>
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<td>Letters of Evaluation¹</td>
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<td>UMMC</td>
<td>Transcripts²</td>
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<td>Secondary Application³</td>
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<td>MCAT Scores</td>
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Notification Date: Acceptances notified on a rolling basis between October 16 and March 15

1A complete set of all undergraduate and post-baccalaureate transcripts must be mailed to: American Medical College Application Service, 2501 M Street, NW, Lbby-26, Washington, DC 20037-1300; e-mail: amcas@aamc.org
2An additional set of all undergraduate and post-baccalaureate transcripts must be mailed to: Office of Student Records and Registrar, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505; Telephone (601) 984-1080
3Access to UMMC’s web-based Secondary Application System is restricted. A nonrefundable supplemental application fee of $50 for residents and $100 for nonresidents is required.
4Letters of evaluation, must be written by faculty who taught the applicant preferably pre-requisite courses and who can provide information not readily available elsewhere. No specific format is required; however, the Premedical Faculty Appraisal Form may be provided to letter writers to indicate areas of interest to the Admissions Committee. Above all, we seek information on an applicant’s approach to academic studies including how difficulties encountered along the way were dealt with. A minimum of three faculty letters is required; however, one composite evaluation from a pre-professional advisory committee will suffice. Supplemental letters should be kept to a minimum. When appropriate, a supplemental letter from a physician the applicant has shadowed or current employer may be considered by the admissions committee; but it does not replace required faculty evaluations. All letters of evaluation must be submitted directly to the American Medical College Application Service (AMCAS).
COMBINED DOCTOR OF MEDICINE (MD)/DOCTOR OF PHILOSOPHY PROGRAM (PhD)

The MD/PhD program is offered to highly qualified students by the School of Medicine in collaboration with the School of Graduate Studies in the Health Sciences. The program is designed primarily to train physician scientists who seek a professional career combining clinical skills and research. For this combined program, the degree of Doctor of Philosophy is offered in the health sciences programs. Information can be found online.

Students interested in pursuing the MD/PhD program must complete all medical school application materials. In addition, applicants must:

- Complete the MD/PhD Motivation and Significant Research essays in their AMCAS application, describing all relevant research experience and research presentations;
- Submit Graduate Record Examination (GRE) scores;
- Submit at least one supplemental faculty letters of evaluation from someone able to evaluate the applicant’s research potential.
- Adhere to RDP deadlines.

Applicants to this combined degree program must be sequentially accepted for admission by the admissions committees of both the School of Medicine and School of Graduate Studies in the Health Sciences.

The MD/PhD program is a seven-year program. During the first three years, the student is enrolled respectively in the freshman, sophomore and junior medical courses/clerkships. For the following three years, the student is enrolled in courses required by a relevant graduate program in the biomedical sciences, which are listed under the School of Graduate Studies in the Health Sciences, and performs independent scientific research leading to the successful defense of a PhD dissertation. During the final year, the student is enrolled in senior medical courses.

A limited number of stipends are available for students enrolled in this combined degree program. Competitive scholarships may also be available which offer a waiver of medical and graduate school tuition.

It is also possible for first- or second-year medical students not currently in the MD/PhD program to pursue an MD/PhD degree. Interested students should contact the graduate program director of a specific program about the possibility of pursuing a PhD degree in that program before applying to graduate school.

### MD PROGRAM

#### YEAR 1

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<td>MEDICAL NEUROSCIENCE</td>
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<td>MEDICAL MICROBIOLOGY</td>
<td>INTRODUCTION TO PHARMACOLOGY AND THERAPEUTICS</td>
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<td>OBSTETRICS AND GYNECOLOGY</td>
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<td>SURGERY</td>
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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
GRADUATE PROGRAM – YEAR 1

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INDIVIDUALIZED ADVANCED COURSES, RESEARCH AND SEMINARS

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INDIVIDUALIZED ADVANCED COURSES, RESEARCH AND SEMINARS

GRADUATE PROGRAM – YEAR 3

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INDIVIDUALIZED ADVANCED COURSES, RESEARCH AND SEMINARS

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MD PROGRAM

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| AMBULATORY CORE |
| GENERAL MEDICINE CLERKSHIP |
| PEDIATRICS CORE |
| SURGERY CORE |
| SENIOR SEMINAR |
| ELECTIVES x 4 |

USMLE STEP 2 CK AND CS

ADVANCED STANDING TRANSFER

Applications for admission to advanced standing at levels up to the beginning of the junior year in the University of Mississippi School of Medicine are considered by the Admissions Committee. Prior to admissions committee deliberations, the associate deans for admissions, student affairs and academic affairs consult with the dean of the School of Medicine who determines whether space exists within the pertinent medical student class. This process ensures that adequate resources exist so that the training of currently enrolled students will not be adversely affected.

Advanced standing applicants must be currently enrolled and in good academic standing at an LCME accredited U.S. medical school and strong preference is given to those who fulfill Mississippi residency requirements (see Admissions, Standards and Legal Policy). The applicant will be required to submit evidence of withdrawal in good standing from the LCME accredited medical school previously attended and a validated transcript of the work completed at that school. The applicant's undergraduate biology, chemistry, physics and mathematics (BCPM) cumulative grade point average (GPA) and Medical College Admission Test (MCAT®) scores must be competitive with those of the class he/she seeks to enter. If the applicant's previous medical coursework is incompatible with the curriculum or schedules in this school, the applicant may be asked to complete a required course(s) before being accepted to transfer or the applicant may be accepted to a lower level of advanced standing and be required to complete a particular course(s) before proceeding with the next academic year. No student will be admitted to advanced standing if there is a condition or failure in any subject or if the applicant is not in good standing at the medical school from which he/she wishes to transfer. For a student applying for transfer to the junior year, receipt of the student's official transcript from the National Board of Medical Examiners demonstrating a passing score on United States Medical Licensing Examination Step 1 is a requirement for admission to, and for initiating, the junior year in this school.

A prospective applicant for transfer should email or write the Associate Dean for Admissions, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505, or visit online for information concerning applications. Completed application must be returned to this address by March 31.

VISITING STUDENTS

For medical students at University of Mississippi School of Medicine who wish to take senior electives at other medical schools - The Visiting Student Application Service (VSAS) is the AAMC application designed to make it easier for medical students to apply for senior electives at other U.S. medical schools. Information regarding the VSAS process can be found online. Each medical school must issue a student authorization before he/she may log into VSAS. You will be notified of these authorizations by e-mail.

If you are applying to a medical school that does not use VSAS, please use the Extramural Electives Compendium (EEC) for visiting student application information or the individual medical school website.
**For medical students at other schools who wish to take senior electives at the University of Mississippi School of Medicine** - Senior medical students who are enrolled in good standing in an LCME-accredited school, or an American Osteopathic Association (AOA)-accredited school, in the U.S. or Canada and who are formally approved by their parent school can be offered a senior elective in the School of Medicine. The Office of Student Affairs and Registrar’s Office verifies the credentials of visiting senior medical students, formally registers them, and maintains a roster of these students.

The University of Mississippi School of Medicine participates in the American Association of Medical College’s (AAMC) Visiting Student Application Service (VSAS). Verification of credentials for prospective visiting students is part of the application process for the extramural block. Visiting students from other schools for clinical clerkships and electives must possess qualifications equivalent to students in this medical school. Approval by the chairman of the appropriate department and by the dean of the parent LCME-accredited or AOA-accredited school, as well as verification of: professional liability insurance coverage, individual health insurance, HIPAA certification, OSHA certification, criminal background check, BLS/ACLS training, and immunization compliance for the visiting student is required. The registrar, in consultation with the associate dean for student affairs, screens applications to ascertain that applicants are enrolled in good standing in LCME- or AOA-accredited U.S./Canadian medical schools, that applicants are (or will be) senior medical students, and that applicants have been granted approval by their school. Final acceptance of the applicant, on a space available basis, for a senior block in our program is vested in the department.

Evaluations of these students are provided to their parent schools by the respective departments offering the electives. Health services are available to visiting students through Student-Employee Health and University Hospital. The liability insurance policy for our students provides coverage for visiting senior medical students; however, if visiting students have liability insurance coverage in effect through their parent schools, our student policy then provides only secondary coverage for them.

Prospective visiting students should visit the AAMC’s Visiting Student Application Service (www.aamc.org/vsas VSAS Application) or write the Office of Student Records and Registrar, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505, for information and an application.

**APPLICANT EVALUATIONS AND DECISIONS**

In 2010, leadership of the Association of American Medical Colleges challenged medical schools to transform the admission process in several ways. For example, they encouraged schools to employ a holistic admissions review that affords each applicant balanced consideration of life experiences, personal attributes and academic metrics, and to select not only those who can succeed but those who can contribute to the diversity of a medical school class that can serve as a driver of educational excellence. To meet this challenge, the University of Mississippi’s School of Medicine (SOM) employs the following steps for evaluating applicants and the information they submit.

**Mississippi Residency**

For admission purposes, the School of Medicine (SOM) at the University of Mississippi Medical Center gives preference to residents of the State of Mississippi, as defined by Miss. Code §§ 37-103-7, 37-103-13 and IHL Policy 610; see Admissions Standards and Legal Policy. As such, the SOM currently accepts admission applications only from individuals who are U.S. citizens or lawful permanent residents. The SOM may choose not to accept applications from students who cannot demonstrate residency as defined by Miss. Code § 37-103-7 and 37-103-13. In recent years, it has not been possible to admit nonresidents of the State of Mississippi.

Residency determination is not based solely on information provided in an AMCAS® application; it is based on information provided in the UMMC Secondary Application and, when requested, a Request for Review of Residency Classification form and supporting documentation. Questions regarding residency classification should be addressed to the Office of Student Records and Registrar.

**Life Experiences**

The admissions committee values applicant experiences in the following areas:

- Health care - Shadowing (individual physicians or hospital/clinic programs), premedical organizations, health-related courses or clinical training, employment or volunteering at a health care facility including nursing homes, medical research involving contact with patients or patient records, primary health care provider, work with medically underserved populations or rural medicine programs, participation in health care pipeline programs
- Volunteer/community service - Social and other campus, community and faith-based organizations, campus ambassador/recruiter, disaster relief, mentoring/tutoring/coaching and other
- Leadership/responsibility - Elected office, supervisor or other role with responsibility in social or other campus, governmental or military organizations, mentoring/tutoring/coaching
- Research - Employment or volunteer work in a basic science or clinical laboratory
- Employment - Any part- or full-time employment concurrent with or independent of enrollment in school
- Other significant time commitments - Participation in collegiate, semi- or professional level athletics (including cheerleading) or artistic endeavors (theater, band, orchestra) and other major time commitments beyond those already listed

**File Review Subcommittee (FRS)**

Three members of a FRS, whose access to an American Medical College Application Service (AMCAS®) application is limited to Work/Activities and Essay sections only, read and score activities in each area of interest. Scores are based on the number of activities, the length of time devoted to each activity, the quality, or lack thereof, of the description of the activity.

Experience scores are used to screen applicants for interviews, render admissions committee decisions and post-application counseling for unsuccessful applicants.
Personal Attributes
The admissions committee values applicants who possess the following personal attributes.

- Written communication skills - Clear and well organized presentation of ideas, such as an applicant’s motivation for a career in medicine and observations, personal growth, and value of acquired experiences
- Initiative - Motivation to seek, participate in or initiate activities independent of groups, leadership role in sustaining a group or founding a new group.
- Interacting with people - Written evidence of empathy, compassion and altruism for diverse people
- Motivation for medicine - Extent of interest expressed both in writing and participation in health-related activities
- Workload - Year-by-year evaluation of credit hours taken and time committed to employment and extracurricular activities
- Desire to learn - Academic achievement beyond the minimum prerequisites or degree requirements including single/multiple majors/minors/degrees, and honors college enrollment

The first four attributes are scored by the same three File Review Subcommittee (FRS) members who score the applicant’s experiences. FRS members have limited access to the American Medical College Application Service (AMCAS®) application Work/Activities and Essay sections only. Scores are based on reading these sections of the application and evaluating what the applicant has done to illustrate initiative, interaction with diverse people, and motivation for medicine as well as the clarity with which this has been conveyed in the written application.

The admissions staff scores workload and desire to learn.

Attribute scores are used to screen applicants for interviews, render admissions committee decisions and post-application counseling for unsuccessful applicants.

Academic Metrics
Grade Point Averages (GPAs) and Medical College Admissions Test (MCAT®) scores comprise the academic metrics considered for admission. For information regarding when and how they are applied in the admissions process, see Interviews and Admissions Committee Deliberations.

- **GPAs** - The scholastic record in courses preparatory for the medical school curriculum is important. This is summarized as the applicant’s cumulative undergraduate grade point average (GPA). Due to variations in grading schemes between schools, only GPAs calculated in the American Medical College Application Service (AMCAS®) application will be considered. It is recommended that students receive a grade in all courses that satisfy the admission criteria option selected by the applicant to qualify for admission (see Admissions Criteria), avoiding courses with pass-fail grades. Academic averages are calculated on a 4.0 basis. If a course is repeated, all grades are used in calculating the average.

The admissions criteria option selected in the SOM Secondary Application determines which GPA will be primarily considered in evaluating whether or not the applicant qualifies for admission; however, grades in all academic course work may be considered during admission committee deliberations.

AMCAS® cumulative undergraduate biology, chemistry, physics and math (BCPM) GPA will be used to assess applicants who select the following options: 1) pre-requisite courses; 2) end-point courses; and 3) course-competency-maps for science majors.

In addition to considering any available BCPM GPA, AMCAS® cumulative undergraduate all other GPA and grades in pertinent courses will be used to assess applicants who select the following options: 1) course-competency-maps for non-science majors; and 2) novel premedical curricula.

The minimum cumulative undergraduate GPA required for automatic file review and consideration for interviews is 2.8. For applicants with a GPA close to but below this threshold, a file review will be conducted that includes any available post-baccalaureate and graduate GPAs, MCAT® scores, life experiences and personal attributes to determine if, on a case-by-case basis, the admissions committee finds a compelling reason to invite the applicant to interview.

**MCAT® Scores** - An equally important metric is scores reported for the applicant’s performance on the MCAT®. Applicants must take the MCAT® and release score reports to this medical school. Selection of applicants for the medical school class entering in a given calendar year will be based, in part, on MCAT® scores acquired during the previous four calendar years only.

The minimum MCAT® sum (add scores for all sections on any one exam) required for automatic file review and consideration for interviews is 21 (493 on the 2015 MCAT), provided that no one section score is less than 5 (121 on the 2015 MCAT1991 format). The highest MCAT® sum on any single examination will be considered for applicants who report scores for more than one MCAT®. For applicants whose MCAT® score is close to but below this threshold, a file review will be conducted that includes GPAs, life experiences and personal attributes to determine if, on a case-by-case basis, the admissions committee finds a compelling reason to invite the applicant to interview. While initial emphasis is placed on the sum of section scores, individual section scores will be examined for balance.

The typical entering class at this medical school has an average BCPM GPA of 3.6, overall GPA of 3.7 and an MCAT® sum of 28 (MCAT1991 exam).

**Interviews**
Applicants should not present themselves for interviews until requested to do so by the associate dean for medical school admissions.
Selection for Interviews
Criteria for selecting interviewees are established by the SOM Admissions Committee. Selection for interviews is based on a balance between life experiences, personal attributes (those evaluated by reading the AMCAS® application) and metrics. Criteria may vary slightly from year to year depending on the number of applications received and the quality of the applicant pool.

Applicants with minimum metrics (2.8 GPA and 21 or 493 on the 2015 MCAT®) will automatically have their files reviewed by a File Review Subcommittee (FRS) to determine if there is evidence of life experiences and personal attributes that this medical school values and seeks in its students and graduates. Notable deficiencies in either experiences or attributes may result in applicants with high metrics not being invited to interview.

Applicants whose GPA or MCAT® sum are close to but below thresholds listed above, may have their files reviewed by a FRS to determine if there is compelling evidence of life experiences or personal attributes that this medical school values and seeks in its students and graduates. Notable experiences or attributes may result in applicants with low, but acceptable, metrics being invited to interview.

Multiple Mini Interviews (MMIs)
The MMI consists of a circuit of eight to ten interview “stations”, each of which provides a ten minute scenario-based encounter. Each station has a trained rater who is a member of the Interview Subcommittee; therefore, each applicant will be evaluated by approximately eight to ten different raters. The station scenarios do not test or assess scientific or clinical knowledge; instead, they focus on personal competencies such as oral communication skills, service orientation, respect for others including compassion and empathy, critical thinking and decision making, teamwork, awareness of ethics, maturity, coping skills and opinions on health care issues.

Additional information will be provided to applicants when they are invited to interview and during the admissions interview day program.

Scheduling Interviews
Applicants whom the admissions committee selects are notified to contact the Admissions Office to schedule their interview date. Interviews are generally scheduled two days each month from September through December. MMIs will be conducted at the UMMC Clinical Skills Assessment Center located at the Jackson Medical Mall (see Maps and Directions).

Interview Day Program
All MMI participants must sign a School of Medicine Participant Agreement and Statement of Confidentiality. Applicants will be provided a copy to read and sign during the Registration and Welcome (see below).

The following schedule is for illustrative purposes only. While times beyond registration may vary, it is imperative that applicants plan to arrive well ahead of time to ensure participation in the complete program.

8:00 am   Registration and Welcome
8:30 am   Circuit 1 - MMIs
          Circuit 2 - Admissions Program
10:30 am  Circuit 1 - Admissions Program
          Circuit 2 - MMIs
12:30 pm  Transportation from Medical Mall to UMMC campus
          Lunch at Student Union
1:30 pm   Tour of UMMC (wear comfortable shoes)
2:30 pm   Transportation from UMMC campus to Medical Mall

Faculty Letters of Evaluation
Evaluations must be written by either faculty who taught the applicant, preferably courses used to satisfy admissions criteria, or faculty who supervised the applicant conducting research outside the classroom. A minimum of three faculty evaluation letters is required: however, one composite evaluation from a pre-professional advisory committee will suffice. Composite letters must contain the names of faculty who participated in the evaluation of the applicant.

All letters must be printed on institutional letterhead, signed by the author(s) and state the course(s) in which he/she taught the applicant.

Letter Content
This medical school seeks information on unique contributions that an applicant might provide to a medical school class and the presence, or absence, of any of the following core, entry-level competencies for entering medical students. Authors are encouraged to consult AAMC Guidelines for Writing a Letter of Evaluation for a Medical School Applicant for details.

Thinking & Reasoning Competencies
- Critical Thinking
- Quantitative Reasoning
- Scientific Inquiry
- Written Communication

Science Competencies
- Living Systems
- Human Behavior

Interpersonal Competencies
- Service Orientation
- Social Skills
Supplemental letters should be kept to a minimum. When appropriate, a supplemental letter from a physician the applicant has shadowed or current employer may be considered by the admissions committee, but it does not replace required faculty evaluations.

Letter Submission

Instructions for submitting letters are provided to applicants in the American Medical College Application Service (AMCAS®) application. In all cases, applicants must provide authors a letter request form generated from the applicant’s AMCAS® application. Letters sent directly to this medical school will not be accepted.

Letters of evaluation can be submitted online as a .PDF file to the appropriate site:
- AMCAS® Letter Writer Application - This application enables letter writers to upload documents securely to AMCAS® rather than send letters via the mail. If you are interested in this option, and can upload a .PDF version of your letter, make note of the requesting applicant’s AAMC ID and AMCAS® Letter ID included in the letter request form.

Mail hard copy to AMCAS® for scanning into .PDF file. If you select this option, attach the letter request form to your letter(s) and mail to:
Attn: AMCAS Letters
American Medical College Application Services
P.O. Box 18958
Washington, DC 20036

AMCAS® will acknowledge receipt of your letter; this office will not. AMCAS® will load .PDF files into applications and distribute your letter electronically to all medical schools indicated by the applicant in his/her AMCAS® application.

Applicants who reapply must submit new evaluation letters with each application.

Admissions Committee Deliberations

The authority to select applicants for admission to the School of Medicine (SOM) is vested in the admissions committee. This committee is chaired by the associate dean for medical school admissions and composed of members of the basic science and clinical faculty and community representatives appointed by the dean of the school of medicine. No student may enroll for courses in the SOM, either as a regular full-time student or as a special part-time student, without being admitted by the committee.

The medical school Admissions Committee reviews the entire file for every interviewed applicant. Committee deliberations include a discussion of: where an applicant was raised and educated noting financial, educational and socioeconomic advantages and disadvantages; an applicant's life experiences and personal attributes including scores assigned by the File Review Subcommittee; personal attributes reflected in the written application, performance on multiple mini interviews rated by members of the Interview Subcommittee and faculty evaluations; and academic metrics including trends in GPAs and MCAT® scores. Attention is given to applicants who in the opinion of the Admissions Committee best fulfill the mission and diversity interests of the SOM.

Selection of applicants is made on a competitive basis, without regard to race, color, religion, national origin, age, disability, marital status, gender, sexual orientation or veteran status. Qualified handicapped students will be considered in relation to the technical standards.

Decisions Rendered

Admissions decisions are made on a rolling basis; therefore, the sooner an applicant applies, the earlier his/her file will be reviewed and considered for interviews. If files are complete, applicants are discussed within two to three weeks of interviews and one of three decisions rendered: 1) acceptance; 2) decision postponed; or 3) no position available for this year.

Applicants to the Early Decision Program will be notified as soon as a decision has been rendered; applicants to the Regular Decision and Combined MD/PhD programs will be notified starting October 16 and thereafter as soon as a decision has been rendered. All applicants receive a final disposition of their application not later than March 15. Final notification will be one of the following: 1) acceptance; 2) placement on the alternate list; or 3) no position available for this year.

Alternates will be used to fill any vacancies that may occur if accepted applicants choose not to attend. Any applicant who does not gain acceptance is invited to schedule an appointment after February 15th for post-application counseling on how to improve the competitiveness of their application should the applicant choose to subsequently reapply.

Conditional Acceptance

Acceptance to this medical school is conditional. The admissions committee may rescind an offer of acceptance at any time before matriculation if an applicant fails to maintain expectations upon which the acceptance was based. Examples include, but are not limited to, a significant decline in academic performance, failure to complete prerequisites or other course work and degrees in progress, patterns of unprofessional behavior and incidents discovered in a criminal background check.
Criminal Background Checks (CBCs)
Any preadmission agreement executed by the health care program with a student shall be void if there is a disqualifying incident or pattern of unprofessional behavior in the CBC prior to enrollment. Since clinical rotations are an integral part of the education of medical students at University of Mississippi Medical Center (UMMC), all applicants accepted to the School of Medicine (SOM) must undergo both the CBCs described below.

- **AAMC-Facilitated CBC** - All successful applicants to the SOM undergo a centralized Association of American Medical Colleges (AAMC)-facilitated CBC.
  Certiphi Screening, Inc., a Vertical Screen® company, will conduct a CBC based on inspection of local, state and national records. Upon initial acceptance to this or any other participating medical school, applicants will be provided electronic access to consent that will give permission to initiate the CBC.

  When the Certiphi CBC is complete, accepted applicants will be given 10 calendar days to review the report on a secure website. Applicants may release reports immediately or contest inaccuracies prior to releasing it to the requesting medical school. If the applicant does not respond within 10 calendar days, the report will be released automatically.

- **Fingerprint-Based CBC** - Effective July 1, 2004, Section 37-29-232 of the Mississippi Code requires that students enrolled in a health care professional academic program undergo fingerprinting and a CBC before any clinical rotation in a licensed health care facility may occur. Independent of the AAMC-facilitated CBC, **all accepted applicants must call the SOM admissions office to schedule an appointment with UMMC Human Resources sometime between December 1 and June 1 prior to enrollment** so that a set of digital fingerprints and photograph can be acquired. Fingerprints will be submitted to the Mississippi Public Safety Commission and Department of Justice Federal Bureau of Investigation for a criminal background check. If any potentially disqualifying event is reported, Human Resources will mail to the medical school applicant a letter (such as Determination of Non-Suitability for Employment in a Healthcare Facility) indicating that a potentially disqualifying event(s) has been reported and a copy of the criminal history report record. Copies will be sent to the associate dean for medical school admissions. Currently, there is no charge to the applicant for this service.

  The steps involved in evaluating a criminal background history are described in the SOM Procedures for Criminal Background Checks.

- **Subsequent Convictions** - Applicants are responsible for notifying the associate dean for medical school admissions if any further criminal action occurs subsequent to submitting an AMCAS® application or the conduct of CBCs described above. This includes the following: if you are convicted of, or plead guilty or no contest to, any misdemeanor or felony crime(s) after the date of your submission of the medical school application and prior to your medical school matriculation. Your communication must be in writing, and must occur within 30 days of the occurrence of the criminal action.

Other Nonacademic and Personal Attributes
In addition to interviews, evidence for these attributes is acquired from “work/activities” listed on an applicant’s AMCAS® application. Examples of what the Admissions Committee seeks include evidence of: exposure to clinical medicine (volunteer work or employment at a hospital, clinic, nursing home or hospice, shadowing physicians, participating in medical missions); interaction with diverse people; volunteer service; community activities; leadership; academic pursuits beyond the classroom (such as research); cultural interests and other activities that require commitment of time outside the classroom (employment, athletics, artistic performance). Applicants who acquire such experience while maintaining high academic performance and time management skills possess qualities that can contribute to success in medical school.

RESPONSE TO LETTER OF ACCEPTANCE
Upon notification of acceptance, an applicant will be provided on-line access to Information and Instructions, Statement of Acceptance, Criminal Background Check, Technical Standards, Academic Accommodations, and White Coat Ceremony forms that must be read, completed and submitted electronically within 15 days after the date of notification that the applicant has been accepted. Failure to do so within the specified period may automatically void the offer of acceptance.

- **Statement of Acceptance** - A form for applicants to indicate their intention to attend this medical school.
- **Criminal Background Check Form** - A description of CBC policies and procedures for this medical school that includes an applicant’s responsibility to report, to the Associate Dean for Admissions, any incident that occurs subsequent to a CBC check.
- **Technical Standards** - A description of Technical Standards applicants are expected to meet for admission, retention, promotion and certification as an MD.
- **Academic Accommodations Form** - A description of Academic Accommodations policies and procedures can be found online.
- **White Coat Ceremony Form** - A form that enables an accepted applicant to verify the listing of his/her name and specify the size of the coat that he/she will receive at a ceremony held during orientation.

The medical school admissions committee may rescind an offer of acceptance at any time before matriculation if an applicant fails to maintain expectations upon which the acceptance was based. Examples include, but are not limited to, a significant decline in academic performance, failure to complete prerequisites or other course work and degrees in progress, unprofessional behavior and incidents in a criminal background check.

ACCEPTED APPLICANTS
For useful information, accepted applicants are encouraged to consult the web pages of Student Affairs and Academic Affairs.

Contact Information - Accepted applicants must keep all contact information (especially e-mail address, preferred mailing address and telephone numbers) updated in the AMCAS® application until arrival for orientation. Updates must also be provided to the Office of Student Records and Registrar.
Start Date - There is a mandatory orientation and registration for the entering class held in the fall. The Associate Dean for Student Affairs will mail further details during the summer. For questions, call (601) 984-5012.

TUITION AND REQUIRED FEES
Medical school tuition for residents of Mississippi and non-residents is shown in the table below. The tuition assessment includes required registration, laboratory and library usage fees. Medical school tuition is assessed in accordance with financial aid disbursement regulations. Health insurance is mandatory. A group plan is available for UMMC students. Participation in a group disability insurance plan is mandatory for all medical students. Tuition fees for the 2015-2016 year are $25,649 for Mississippi residents. Non-resident tuition fees are $58,114. A disability insurance fee of $55 per year is assessed with the first tuition assessment. Tuition and fees are subject to change. Students registered in the combined MD/PhD program will pay graduate tuition for graduate hours and medical tuition for terms they are enrolled as a medical student. A nonrefundable supplemental application fee of $50 is required. Current medical school tuition information can be found on the student accounting website under ‘Doctor of Medicine.’

SCHOOL OF MEDICINE STUDENT HANDBOOK
The purpose of the School of Medicine Student Handbook is to provide students with specific information concerning school policies, regulations and services. As a student at the University of Mississippi School of Medicine, you have a responsibility to read and become familiar with the contents of this handbook and all other such publications distributed by the institution. All members of the Medical Center community endeavor to create and maintain an environment that is safe, friendly, and conducive to learning. Students are provided with a physical copy of the handbook during M1 orientation. This publication is subject to change. The most up-to-date edition can always be found on the School of Medicine’s website.

REQUIRED LAPTOPS
Entering medical students are required to have a laptop computer that meets the annually revised UMMC Minimal Laptop Specifications that are posted on the School of Medicine website. Funds are budgeted in the student financial aid package to cover the cost of a laptop computer. Students should purchase a laptop meeting or exceeding the UMMC Minimal Specifications from regular retail channels. High-end laptops from any IBM-PC or Apple compatible manufacturer should be acceptable. Students will be personally responsible for maintenance/repair of their laptop. All students are required to maintain up to date virus and spyware detection software to allow access to the UMMC public wireless network. Students should acquire their laptop prior to the first week of August. Students will need to bring their functional laptop to a computer orientation seminar to be held on the last day of registration/orientation before classes.

REQUIRED CLICKERS
Entering medical students are also required to purchase an Interwrite PRS RF Clicker Personal Response System from the UMMC bookstore prior to the beginning of classes. Models from other manufacturers or from previous years will be not compatible with the classroom participation systems in use during medical school classes.

Questions about required products or the laptop specifications should be emailed to Dr. William L. Lushbaugh, School of Medicine, e-Learning Director.

TEXTBOOKS AND SPECIAL EQUIPMENT
Students must provide their own required textbooks and special equipment, including stethoscopes and dissecting instruments, as specified throughout the course of study. These items are normally available through the Medical Center Bookstore.

FINANCIAL AID
The website for the Office of Student Financial Aid is designed to serve students in all schools at this medical center; however, the information presented below is particularly useful for medical students. Consult Student Financial Aid for general information and access the Incoming Student link and Frequently Asked Questions.

About 90% of first year students at the University of Mississippi School of Medicine receive some form of merit/need based financial aid. Financial aid sources are diverse and include private donations, institutional accounts, state, and federal governmental programs. The most authoritative and up-to-date information is available at the Student Financial Services website. Questions beyond what is provided here should be directed to Student Financial Aid or (601) 984-1117.

Timeliness for making financial aid awards, mailing statements, posting credits and issuing award checks are approximate; variations may occur due to specific program requirements that this institution cannot control. For example, policies governing military scholarships require the institution to invoice the student for tuition/fees before funds will be provided to credit the account. It is important for students to become familiar with policies governing their specific awards.

Every attempt is made to provide incoming students accurate figures for the cost of attendance and financial aid awards in advance of enrollment; however, these figures are not fully under institutional control. For example, increases in tuition and fees mandated by the Mississippi State Institutions of Higher Learning and increases in medical insurance premiums charged by insurance carriers may not be imposed until the summer before enrollment. Some forms of financial aid may be able to accommodate these increases while others may not.

STATE SCHOLARSHIP AND LOAN PROGRAMS
State Funded Financial Assistance - Under the governance of the Board of Trustees of State Institutions of Higher Learning, the Mississippi Office of Student Financial Aid is responsible for the administration of all state-funded financial aid programs, including grants, scholarships and loans. These funds provide assistance to Mississippi residents in pursuit of their educational and professional goals. Several programs are designated to provide financial assistance to medical students.
State Medical Education Loan/Scholarship - (Family Medicine, Internal Medicine, Obstetrics/Gynecology, Pediatrics) Accepted applicants and matriculated medical students are eligible to apply. Online applications must be submitted to the Mississippi Office of Student Financial Aid before March 31. Applicants accepted to medical school after this deadline (for example, from the alternate list) may still qualify for funds if an online application is submitted before the above deadline. All of these programs incur service obligations in State of Mississippi Physician Shortage Areas. The list of counties that qualify is extensive, but subject to change on an annual basis. For further information, contact Mississippi Office of Student Financial Aid, 3825 Ridgewood Road, Jackson, MS 39211-6453, (601) 432-6997 or (800) 327-2980.

FEDERAL SCHOLARSHIP AND LOAN PROGRAMS

The Direct Unsubsidized Loan - This loan is available to students regardless of income or need. With an unsubsidized loan, you are responsible for all interest that accrues during in-school, grace and deferment periods. You may choose to pay the interest portion only while in school, which would keep your loan balance at principal. If you choose to defer such payments, the interest will be capitalized, resulting in an increase in both total debt and the amount of monthly payments. Loans are usually issued for a single academic year, and both eligibility and amount are redetermined annually throughout your academic career.

Your Direct Loan eligibility is determined by the Financial Aid Office and is based on information you provided in the Free Application for Federal Student Aid (FAFSA). Federal criteria include:
- Enrollment in an eligible school at least half-time in a degree program
- U.S. citizenship, permanent residency, or eligible noncitizen status
- Satisfactory academic progress (as determined by the Office of Financial Aid)
- No unresolved defaults or overpayments owed on Title IV educational loans and grants
- Satisfaction of all Selective Service Act requirements

Federal Perkins Student Loan - This program provides low interest loans to help needy students finance the costs of postsecondary education. The school’s revolving Perkins loan fund is replenished by ongoing activities, such as collections by the school on outstanding Perkins loans made by the school and reimbursements from the Department for the cost of certain statutory loan cancellation provisions. Students must file a Free Application for Federal Student Aid (FAFSA) as part of the application process. Students also will need to complete a Perkins promissory note in order to receive a loan.

Federal Scholarships/Loans for Disadvantaged Students - The University of Mississippi School of Medicine annually applies to the U.S. Department of Health and Human Services (HHS) Bureau of Health Profession’s (BHP) Division of Health Careers Diversity and Development (DHCDD) for funds to assist needy students finance their medical school education. The amount of funds awarded to the institution varies each year based on: availability, the proportion of graduated students going into primary care, the proportion of underrepresented minority students, and the proportion of graduated students going into medically underserved communities.

Permitting funding, you are eligible to apply for scholarships for Disadvantaged Students (SDS) and Loans for Disadvantage Students (LDS) funds if you:
- a) have been accepted to or are currently enrolled in this medical school;
- b) are a citizen, national, or a lawful permanent resident of the United States or the District of Columbia, the Commonwealths of Puerto Rico or the Marianas Islands, the Virgin Islands, Guam, the American Samoa, the Trust Territory of the Pacific Islands, the Republic of Palau, the Republic of the Marshall Islands and the Federated State of Micronesia; and
- c) are from an environmentally or economically disadvantaged background.

Participating medical schools are responsible for selecting SDS and LDS recipients, making reasonable determinations of financial need, and providing funds that do not exceed the cost of attendance (tuition, reasonable educational expenses and reasonable living expenses).

EXTERNAL SOURCES OF FUNDS

American Medical Association (AMA) Fund - The AMA Foundation created several scholarship opportunities designed to help students face the financial challenge of paying for a medical school education. Additional information is available online which provides a comprehensive list of AMA financial aid resources, including information about medical education financing and student debt, as well as information on a variety of scholarships and service opportunities.

- The Physicians of Tomorrow Scholarship - This $10,000 scholarship was created in 2004 by the AMA Foundation as part of its ongoing effort to provide financial assistance to medical students facing a spiraling debt load. In its first year, one scholarship was awarded; since then, the Foundation has expanded the program and more scholarships have been added. The Physicians of Tomorrow Scholarship provides the highest level of tuition assistance available from the Foundation to a deserving student enrolled in an accredited United States medical school, based on financial need or academic excellence. All nominees must be rising seniors (M3 students). UMMC may nominate one student. Deadlines: UMMC May 1, AMA May 29

- Minority Scholars Award - Ten $10,000 scholarships are available to students underrepresented in the medical profession. Eligible students of minority background include African American/Black, Native American, Native Hawaiian, Alaska Native and Hispanic/Latino. The selection of awards is based on a combination of financial need, academic excellence and promise for the future. Nominees must be rising-second or rising-third-year medical students. Each medical school dean may nominate two candidates for this scholarship. Deadlines: UMMC March 15 AMA April 15.

Questions about these scholarship opportunities should be directed to Dina Lindenberg, Program Officer, (312) 464-4193. Application materials are available from the Associate Dean for Medical School Admissions.
The American Medical Association-Educational Research Foundation loan program is a source for loans to medical students, interns, and residents. Students are eligible to apply for loans upon the successful completion of two or more quarters of medical school.

Greenwood Leflore Hospital Educational Reimbursement Agreement - This program will provide the cost of medical school attendance for an African American medical student at least 21 years old who upon completion of his/her educational and residency requirements will serve as a licensed physician employed by the hospital in Greenwood, MS, or as a member of hospital's active medical staff in private practice in the hospital's service area as a participating provider in Medicare, Medicaid and similar programs for a period of five years (60 consecutive months). Reimbursement for educational expenses previously paid is available.

Additional information and a copy of the agreement are available from the Associate Dean for Medical School Admissions.

Mississippi Rural Physicians Scholarship Program - In 2007, the Mississippi Legislature created the Mississippi Rural Physicians Scholarship Program, creating a unique longitudinal program that identifies rural college students who aspire to return to their roots to practice medicine. Academic enrichment, faculty and physician mentoring plus solid medical school financial support through the Mississippi Rural Physicians Scholarship Program will enable capable young Mississippians to address the challenge of Mississippi’s healthcare crisis.

Additional information is available online and Mississippi Rural Physicians Scholarship Program, University of Mississippi School of Medicine, 2500 North State Street Jackson, MS 39216-4505, 601. 815.9022.

The Armed Services Health Professions Scholarship Program through the Army, Navy, Air Force and the USPHS offers Health Professions Scholarships to students interested in serving in the military. Students are required to serve a year as a commissioned officer for each year of participation in the program, with a two-year minimum. These scholarships provide tuition, other academic fees, required books, required equipment, and a monthly living stipend.

UMMC INSTITUTIONAL SCHOLARSHIPS
(Scholarships awarded on merit, no application necessary)

James T. Baird Memorial Scholarship Fund was established in 2000 through a gift to the Medical Center. At least one scholarship is available each year in the School of Medicine. All recipients must be in good academic standing, and preference is given to those students who intend to practice in smaller Mississippi towns and communities.

Thomas M. Blake Dean’s Merit Scholarship was established in 2003 to recognize a medical student who demonstrates an ability and willingness to accept responsibility, exercise initiative, and utilize innovative approaches.

Frank Bradley Baker Memorial Scholarship is a scholarship endowment sponsored by the Class of 1965 of the School of Medicine to honor and memorialize their deceased classmate, Frank Bradley Baker. This scholarship is administered by the School of Medicine Loan and Scholarship Committee according to the criteria developed by the Class of 1965. It is awarded to the sophomore with the highest academic average for the preclinical years.

Maribel Barber Scholarship in Medicine was established in 1972 through a bequest to the University of Mississippi for outstanding medical students who are legal residents of Mississippi. Four-year scholarships are awarded. Recipients are selected for their scholastic promise and leadership qualities. To retain the award in succeeding years, the recipient must maintain satisfactory academic progress during formal preparation for a career in medicine.

Bryan Barksdale, MD, School of Medicine Scholarship, made possible by the Barksdale Foundation Account, is awarded to a first-year medical student who is a Mississippi resident. The Barksdale Foundation Account provides scholarships to promote excellence among School of Medicine students and to achieve educational benefits to students derived from a diverse student population. Recipients are selected by the School of Medicine Scholarship and Awards Committee. Selection is based on prior academic achievement, the student’s potential for success in medicine, and accepted institutional financial aid guidelines. The scholarship is renewable each year as long as the recipient remains in good academic standing. Recipients must commit to reside and practice medicine in Mississippi for a period of five years.

Jim and Donna Barksdale School of Medicine Scholarship, made possible by the Barksdale Foundation Account, is awarded to first-year medical students who are Mississippi residents. Recipients are selected by the School of Medicine Admissions Committee. The purpose of the scholarship is to recognize men and women with superior academic achievement and outstanding experiences in healthcare, service and leadership who will potentially impact the medical school class and practice of medicine in Mississippi. The scholarship is renewable each year as long as the recipient remains in good academic standing. Recipients must commit to reside and practice medicine in Mississippi for a period of five years.

Max, Doris and Jewel Blackmon Trust Fund Scholarship provides scholarships for outstanding medical students enrolled in this School of Medicine who have been selected by the Scholarship and Awards committee on the basis of academic potential or financial need. The scholarship may be renewed annually if the student remains in good scholastic standing. Preference is given to students who intend to practice in Mississippi.

A. Wallace Conerly MD Scholarship, which honors Dr. Conerly's service as Vice Chancellor for Health Affairs and Dean of the School of Medicine from 1994-2003, provides both medical and graduate tuition for outstanding MD/PhD students.

John C. and Nina S. Culley Memorial Scholarship was established in 1968 through a $50,000 bequest from Dr. John Culley to the University of Mississippi. When earnings permit, the scholarship is awarded to the top premedical student at the University of Mississippi who applies to the University of Mississippi School of Medicine by November 1 of the year preceding admission.

Hattiesburg Physicians’ Scholarship was established in 1983 by the Board of Directors of the Hattiesburg Community Blood Center, Inc. Award recipients must be sophomores or juniors in the upper one-third of their class. Preference is given to medical students from the Hattiesburg area.
Robert M. Hearin Support Foundation Minority Scholarship is available to three minority students in the School of Medicine M1 class every year who, in the opinion of the Admissions Committee, are most likely to provide health care to underserved Mississippians.

Robert M. Hearin Support Foundation Scholarships, established by the Robert M. Hearin Support Foundation, are awarded to outstanding students selected on the basis of their premedical record and financial need.

F.A. Hunt Scholarship was established through a bequest from Fannie Gordon Hunt to honor her husband. It is awarded annually on the basis of academic excellence.

Dr. M. Winter Jackson Medical Scholarship is awarded to a third-year student on the basis of academic standing, potential for growth and development in the chosen field and need. In the first year the scholarship is awarded, a fourth-year recipient also will be chosen. In subsequent years, the third-year student selected to receive the scholarship also will receive it in the fourth year of medical school if he/she continues to meet the criteria.

Dr. and Mrs. Henry O. Leonard Scholarship Fund was established in June 1988, by Helen G. Snider in memory of her aunt and uncle. Dr. Leonard was in general practice in Coffeeville for many years. Juniors in good academic standing with proven financial need are eligible for the Leonard Scholarship. Recipients must plan to go into the practice of family medicine and must commit to practice in state for a period of five years following graduation and residency training.

John F. Lucas Sr., MD, Scholarship was established by family and friends of Dr. Lucas, an obstetrician-gynecologist in Greenwood for more than 48 years. Incoming freshmen from Leflore, Sunflower, Washington, Bolivar, Humphreys and Yazoo counties are eligible. Selection is based on financial need.

James A. McDevitt, MD, Medical Scholarships, established through a bequest from Alma Valentine McDevitt in memory of her husband, are awarded to worthy and deserving medical students. The scholarships are renewable for each year of medical school provided the recipient maintains good academic standing.

Fred McDonnell, MD, School of Medicine Scholarship, made possible by the Barksdale Foundation Account, is awarded to a first-year medical student who is a Mississippi resident. The Barksdale Foundation provides scholarships to promote excellence among School of Medicine students and to achieve educational benefits to students derived from a diverse student population. Recipients are selected by the School of Medicine Scholarship and Awards Committee. Selection is based on prior academic achievement, the student’s potential for success in medicine, and accepted institutional financial aid guidelines. The scholarship is renewable each year as long as the recipient remains in good academic standing. Recipients must commit to reside and practice medicine in Mississippi for a period of five years.

Medical Alumni Scholarship is awarded to a rising M3 who is in the top half of his or her class, has no other M3 scholarship, and intends to practice in Mississippi after completing all training.

Medical Reunion Scholarship, established in 1996 by the Medical Alumni Chapter, is awarded to a medical student based on academic criteria and financial need.

Miller-Pittman Medical Scholarship was established through a bequest from the late Mary Eugenia Miller. The scholarship is designed to assist “deserving medical students enrolled in the School of Medicine.”

Mississippi Medical and Surgical Association Scholarship Fund is applied toward tuition. Preference is given to an incoming M1 who is an African American or represents another minority group.

Don Mitchell, MD, School of Medicine Scholarship, made possible by the Barksdale Foundation Account, is awarded to a first-year medical student who is a Mississippi resident. The Barksdale Foundation provides scholarships to promote excellence among School of Medicine students and to achieve educational benefits to students derived from a diverse student population. Recipients are selected by the School of Medicine Scholarship and Awards Committee. Selection is based on prior academic achievement, the student’s potential for success in medicine, and accepted institutional financial aid guidelines. The scholarship is renewable each year as long as the recipient remains in good academic standing. Recipients must commit to reside and practice medicine in Mississippi for a period of five years.

Nina Bess Goss-Moffitt, MD, Scholarship, established by Dr. Ellis M. Moffitt in 1999 in memory of his wife, Dr. Nina Bess Goss-Moffitt, who was a longtime member of the Medical Center Department of Psychiatry and Human Behavior faculty. The scholarship is awarded on the basis of need and potential for successful completion of the four-year curriculum. Recipients will receive the Goss-Moffitt scholarship each year in medical school if they remain in good standing.

Norman C. Nelson, MD, Scholarships, established as the Dean’s Scholarships in 1988, were designated in the name of Dr. Norman C. Nelson in 1994, in honor of his 21-year tenure as Vice Chancellor for Health Affairs and Dean of the School of Medicine. Nelson Scholarships are awarded to superior students who have exceptional academic potential. The scholarship is renewable each year if the recipient remains in good academic standing.

Orr-Russwurm Memorial Scholarship Fund provides financial support to a student in any medical center school planning a full or part-time career in Christian missionary work.

William K. Purks, MD, Scholarship, established by the Vicksburg Hospital Medical Foundation in 1990, is awarded to a freshman medical student selected on the basis of outstanding academic achievement, character, and potential in the field of medicine. This scholarship may be renewed for each year of medical school.

Regions Bank Scholarship, established in 1986, goes to a senior in recognition of outstanding academic achievement and promise in the field of medicine.

Ottilie Schillig Memorial Scholarship Fund was established in 1984 through a gift to the Medical Center from the Schillig Trust. Miss Schillig, a native of Port Gibson, was a noted concert singer. At least one scholarship is available each year in the School of Medicine. All recipients must be in good academic standing, and preference is given to those students who intend to practice in smaller Mississippi towns and communities.
Robert E. and Margaret Shands Memorial Fund was established in 1963 by Mrs. Robert E. Shands in memory of her husband, Dr. Shands, a medical certificate alumnus of the University of Mississippi School of Medicine, who had served as president of the Medical Alumni Chapter. This scholarship fund exists to provide financial assistance to students of medicine. The Shands children redesignated the scholarship as a memorial to both their parents in 2000.

E.H. Sumners Foundation Scholarships were established in 1977 by Mrs. E.H. Sumners of Eupora, MS, to provide scholarship assistance for students from Webster, Montgomery, Attala, Carroll and Choctaw counties who are enrolled at the University of Mississippi Medical Center.

Trustees of the University of Mississippi Medical Center established the Robert E. and Margaret Shands Memorial Fund in 1963 to provide financial assistance to students of medicine. The fund is used to assist students who demonstrate financial need and academic promise.

J.K. Oates Loan Fund was established in 1957 in honor of Dr. J.K. Oates to provide loans to worthy medical students.

Googe Memorial Medical Loan Fund was established in 1979 by family of the late Dr. and Mrs. George W. Googe of Rienzi. Dr. Googe practiced medicine in Northeast Mississippi for more than 50 years. Students who have successfully completed at least two quarters in medical school may apply. Applicants must show evidence of financial need and be in good academic standing. Preference is given to applicants from Alcorn and Prentiss counties.

L.D. Webb, MD, Memorial Scholarship was established with a bequest from Dr. Webb in 1990. A two-year alumnus of the Ole Miss School of Medicine who earned his MD at the University of Tennessee, Dr. Webb was in family practice in Calhoun City for more than 35 years. First-year students who demonstrate financial need and academic promise are eligible for this scholarship renewable for each year of enrollment if the student remains in good academic standing. Preference is given to students from northeast Mississippi.

Dr. Bill Weatherford Memorial Scholarship was established by a bequest from the Walters to the University of Mississippi Foundation.

Robert Wood Johnson Loan Fund, made possible by the Robert Wood Johnson Foundation, provides low interest loans to medical students who show evidence of financial need.

Hazel Wilmington Medical Scholarship, established in 1992, is awarded to a freshman medical student based on demonstrated financial need and overall promise in the field of medicine. The award is renewable each year if the recipient maintains good academic standing.

UMMC INSTITUTIONAL LOAN FUNDS

Idalou Bagley Memorial Cancer Educational Loan Fund was established by Clara Bagley in memory of her sister, Idalou Bagley. Recipients should be in their fourth year of medical school and display an interest in cancer research or cancer diagnosis and treatment.

Googe Memorial Medical Loan Fund was established in 1979 by family of the late Dr. and Mrs. George W. Googe of Rienzi. Dr. Googe practiced medicine in Northeast Mississippi for more than 50 years. Students who have successfully completed at least two quarters in medical school may apply. Applicants must show evidence of financial need and be in good academic standing. Preference is given to applicants from Alcorn and Prentiss counties.

Robert Wood Johnson Loan Fund, made possible by the Robert Wood Johnson Foundation, provides low interest loans to medical students who show evidence of financial need.

Kellogg Loan Fund was established in 1942 by the W.K. Kellogg Foundation as a loan fund of $10,000 for the purpose of providing loans for assistance to medical students.

Levine Loan Fund, established by the late Dr. Julius Levine, is available to junior and senior medical students who are native Mississippians and who show evidence of financial need.

George C. and Laura B. McKinstry Scholarship/Loan Fund was established in 1973 by Dr. McKinstry in memory of his father and mother to provide low-interest loans to needy students in the School of Medicine and the Graduate Programs.

G.D. Shands Memorial Loan Fund was established in 1943 by Dr. and Mrs. Paul Hill Saunders in memory of Mrs. Saunders’ father, Lt. Gov. Garvin D. Shands, who for many years was Dean of the University of Mississippi School of Law. This fund exists for the benefit of medical students.

R.J. Nichols Loan Fund was established in memory of Dr. R.J. Nichols to provide loans to medical students who demonstrate financial need and academic promise.

J.K. Oates Loan Fund was established in 1957 in honor of Dr. J.K. Oates to provide loans to worthy medical students.

HONOR SOCIETIES

Alpha Omega Alpha – a national honorary medical society installed on the Medical Center campus in 1958. Undergraduate membership is based entirely on scholarship, personal honesty and leadership potential. Alumnus membership is granted for distinctive achievement in the art and practice of scientific medicine and honorary membership is granted to eminent leaders in medicine and allied sciences.

The Society of the Sigma Xi – a national honorary society installed on the Medical Center campus in May 1967. The society is dedicated to the encouragement of original investigation in the pure and applied sciences. Membership requirements include noteworthy achievement as an original investigator in a pure or applied science.

Phi Kappa Phi – a national honorary scholastic fraternity installed on the Oxford campus in 1959. It is open to those medical, dental, graduate, nursing and health related students who qualify.

Gold Humanism Honor Society - a national honorary society installed on the Medical Center campus in 2005. This society honors senior medical students, residents, role-model physician teachers and other exemplars recognized for demonstrated excellence in clinical care, leadership, compassion and dedication to service. Members are selected by a peer nomination and faculty nomination process.
PROFESSIONAL ORGANIZATIONS

Active chapters of the American Medical Association-Medical Student Section and the Student National Medical Association provide students with the opportunity to participate in a variety of programs.

Through the University Medical Society, a component society of the Mississippi State Medical Association, official voting delegates participate in the House of Delegates of the Mississippi State Medical Association.

Medical students also participate as voting delegates of the Organization of Student Representatives of the Association of American Medical Colleges.

There are active organizations for spouses of medical students to promote closer friendship through informational programs and service projects to help prepare them for their roles in the health care community.

THE MEDICAL ALUMNI GUARDIAN SOCIETY

The society is a special organization sponsored by the medical alumni to encourage extraordinary giving by alumni, friends and faculty of the School of Medicine. The gifts, representing either current or deferred contributions, may be restricted or undesignated. The membership holds the responsibility of insuring that available funds are distributed to the School of Medicine as well as serving as trustee for specially designated charitable programs.

AWARDS AND PRIZES

Alford Memorial Award, established by the Class of 1967 in memory of Raymond Alford, consists of a plaque on which is engraved the name of the medical student who achieves the highest academic record during the freshman year.

Chris Allenburger Memorial Award, established in 1986 by Dr. and Mrs. Gray Hilsman, is a cash prize awarded to a senior medical student or a resident who best displays clinical skills indicative of the courage, dedication, empathy and love shown by Chris Allenburger.

Alpha Omega Alpha Student Scientific Award, given by the Mississippi chapter, consists of a certificate and cash prize awarded annually to a medical student for the best original paper.

American Medical Association Scholars Fund Award is made possible by gifts to the foundation from state physicians and the Mississippi State Medical Association Alliance. The award is presented to a student for superior academic performance to offset tuition expenses.

American Society of Clinical Pathologists Award is given to a capable sophomore medical student who shows special promise for a career in pathology. The award includes a book provided by the American Society of Clinical Pathologists and a certificate from the Department of Pathology.

Blair E. Batson Award for Excellence in Pediatrics recognizes a senior whose clinical performance and devotion to pediatrics are judged superior in the class by the pediatric faculty. It is given to honor Dr. Blair E. Batson, first chairman of the Department of Pediatrics.

Thomas M. (Peter) Blake, MD Award, established in 2001 by the Department of Medicine in memory of Dr. Peter Blake who served as the course director for Physical Diagnosis from 1955-90. This award consists of an engraved plaque, cash and a textbook on advanced physical diagnosis and is presented to a medical student in recognition of academic excellence in the Introduction to Clinical Medicine course, and a pursuit of knowledge, professionalism, and reliance on self rather than others in the ultimate achievement of his/her own goals.

Thomas J. Brooks Jr. Award in Preventive Medicine, established to honor the first chairman of the Department of Preventive Medicine and sponsored by the department and Connaught Laboratories, Inc., is awarded annually to a junior who has demonstrated excellence in the course composing the preventive medicine block the previous academic year.

Margie Bulboff Award established in 2001 by the Office of Alumni Affairs in honor of Margie Bulboff, a long-time Department of Pathology employee and friend to generations of medical students. This $1,000 scholarship goes to a second-year medical student in good standing who successfully balances the demands of the educational program with family, community, philanthropy and intramural activities. The Bulboff Award is presented on Honors Day.

CIBA Award is presented to a sophomore medical student selected by the class members in recognition of outstanding community service.

Clinical Skills Assessment Award recognizes a senior student for outstanding performance on the end of third-year Clinical Skills Assessment exam. The exam is designed to teach and evaluate students' clinical skills including verbal and written communication, history, and physical examination, differential diagnosis and professionalism.

Dr. Wally Conerly Community Service Award is presented to a third- and/or a fourth-year medical student who most exemplifies Dr. Conerly's outstanding attributes of leadership and community outreach and service. The award is sponsored by the Mississippi State Medical Association.

Virginia Covington and Kay Fulton Award was established by the Class of 2006 and consists of a cash prize and certificate given to a medical student participating in a medical mission trip. The recipient should be viewed as a role model and demonstrate a compassion for others.

Dean's Awards are presented annually to selected students with outstanding academic records from the M1, M2 and M3 years. These awards currently are $1,000 for each of the recipients. Awards are subject to renewal provided the recipient maintains academic standing in the upper one-third of the class.

Charles L. Dodgen Memorial Award is given to a third-quarter freshman in memory of Dr. Charles Dodgen, who served on the UMMC Biochemistry faculty from 1958 to 1980. At the time of his death, he was chairman of the Admissions Committee. Recipients of this award are chosen on the basis of overall performance and professional potential.
Daryl Douglas Memorial Award, established by the Class of 1978 in memory of Daryl Douglas, a classmate, consists of a plaque on which are engraved the names of sophomore students who most consistently demonstrate readiness to serve and assist their classmates in the pursuit of medical knowledge and skills.

Medical Student Service Award in Emergency Medicine is presented to a senior medical student interested in emergency medicine for recognition of outstanding care to patients in a manner that exemplifies professionalism and a humanistic approach to patients, their families, and fellow health care workers.

Excellence in Emergency Medicine Award is presented to a senior medical student who has demonstrated outstanding proficiency in emergency medicine.

Carl Gustav Evers Award was established in 1993 by the Mississippi State Medical Association Foundation in memory of Dr. Evers, who was professor of pathology and Associate Dean for Academic Affairs in the School of Medicine at the time of his death in November 1992. This award is given to a senior medical student who has demonstrated qualities of scholarship, peer to peer support, and exceptional leadership in student activities of the American Medical Association and the Mississippi State Medical Association.

Leonard W. Fabian Award, established in 1992 by the Department of Anesthesiology to honor its first chairman, consists of a certificate and cash award. It is presented to a senior medical student in recognition of outstanding achievements in anesthesiology.

Family Medicine Award, sponsored by the Department of Family Medicine and the Mississippi Academy of Family Physicians, goes to a senior who demonstrates excellence in family medicine. It includes a cash prize, textbook and inscription of the student’s name on a plaque.

William B. Gallagher Award, established in 1969 in memory of Dr. William B. Gallagher, is a cash prize given to the senior considered most outstanding in obstetrics-gynecology.

Ernest W. Goodpasture Award is given to the sophomore pathology student with the highest grade in pathology. The tangible components of this award are a cash prize and a certificate, both from the Department of Pathology.

James E. Griffith Pulmonary Award is sponsored by the American Lung Association and is in memory of Dr. James E. Griffith. It is given yearly to a fourth-year medical student who shows interest in pulmonary medicine.

William Forrest Hutchison Memorial Award was established in 1996 in memory of Dr. William Forrest Hutchison by his family. Dr. Hutchison was a member of the School of Medicine faculty from 1955 until 1990. The award is given to a sophomore in the top 25 percent of the class who demonstrates excellence in and a commitment to community service.

Donald T. Imrie Award, established by the Department of Orthopaedic Surgery to Honor Dr. Imrie, is a book prize and certificate to a senior for outstanding performance in orthopaedics.

Waller S. Leathers Award is a medal given on Commencement Day to the graduating student with the highest academic average for the four years in medical school. The medal is awarded in memory of the first dean of the School of Medicine, Waller S. Leathers, MD.

Lippincott, Williams and Wilkins Book Awards are for academic excellence in the anatomical sciences. One award is given to the medical student with the highest academic standing in gross anatomy and neurobiology and the second to the highest ranking student in medical histology.

Blanche Lockhard Scholarship Endowment in Medicine provides an annual award toward tuition for a deserving female medical student. Dr. Lockhard was an obstetrician-gynecologist and a longtime member of the School of Medicine’s clinical faculty.

Robert A. Mahaffey Jr. Memorial Award, established in 1976 in memory of graduate student, Robert A. Mahaffey Jr., includes a cash prize, certificate and plaque. The award goes to a PhD candidate chosen for exceptional research potential by the graduate faculty in pathology.

McGraw-Hill, Merck and Lange Book Awards consist of medical books presented to senior, junior, sophomore and freshman students in recognition of scholastic excellence.

J.P. “Jake” Mills Award in Obstetrics and Gynecology was established in 2000 in memory of J.P. “Jake” Mills of Tupelo, who served on the Board of Trustees of Institutions of Higher Learning from January 1992, until his death April 17, 1999. Students eligible for this award are seniors who have matched for residency training in obstetrics and gynecology. Preference is given to those students who plan to practice in Mississippi.

Mississippi Eye, Ear, Nose, Throat Society Awards are given to two senior medical students for excellence in otolaryngology and ophthalmology. The awards consist of plaques on which the names of recipients are inscribed.

Mississippi Psychiatric Association Outstanding Senior Award is a certificate awarded to the senior with the most outstanding clinical and academic record in psychiatry.

Neuroscience Research Award, sponsored by the Mississippi Chapter, Society for Neuroscience, consists of a cash prize and certificate, and recognizes meritorious research in the neurosciences.

Department of Ophthalmology Award is a cash prize and award given to a senior medical student for excellence in the field of ophthalmology.

Department of Otolaryngology and Communicative Sciences Award is a book award and certificate given to a senior medical student for excellence in the field of otolaryngology.

David S. Pankratz Scholarship, awarded in memory of the first dean of the four-year School of Medicine and first director of the Medical Center, is a cash prize given to a sophomore student in recognition of outstanding academic achievements in the freshman medical year.

Department of Pathology Prize consists of a cash prize presented to the sophomore student or students with superior scholastic performance in pathology.

Powell Award for Excellence in Family Medicine is sponsored by the Mississippi Academy of Family Physicians. A cash prize and textbook are presented to the senior student demonstrating excellence in family medicine. The recipient’s name is engraved on a plaque.
Brenda Joy Nicholson Pritchard Scholarship Fund was established in 1999 with a bequest from the estate of Sarah Margaret Ridgell Nicholson and named for her daughter, a graduate of University Medical Center School of Medicine and Pathology Residency. This scholarship is given to a deserving medical student ranked in the top half of the class with financial need.

Professor of the Year Awards were established by the University of Mississippi Medical Alumni Chapter and consist of a cash prize in recognition of teaching excellence. The clinical professor is selected by the senior class and the preclinical professor by the sophomore class.

Joey Purvis Memorial Fund Award honors Joey Purvis, a member of the Class of 2002, who was killed in an automobile accident while in route to Pennsylvania State University Medical Center to interview for an ob-gyn residency position. This award goes to a medical student who best exemplifies Joey’s caring concern for patients and fellow students.

Rear Admiral Dennis Wright Military Medical Student Award honors Rear Admiral Dennis Wright, a 1968 graduate of the School of Medicine, and is presented to a medical student enrolled in a military program, in recognition of outstanding achievement in medical course work.

Rice-Holland Memorial Award, established in memory of Dr. James C. Rice and Dr. William C. Holland, former chairmen of the Department of Pharmacology and Toxicology, consists of a cash prize awarded to an outstanding medical student in pharmacology.

Curtis Delgadillo Roberts MD, Scholarship in Medicine honors the memory of a longtime Brandon family physician who died in 1989. The scholarship is awarded on the basis of exceptional merit and/or exceptional need and potential for successful completion of the four-year curriculum. Preference is given to Rankin County residents.

Stanley C. Russell Award was established by Dr. Russell’s family in 2001 in celebration of his 70th birthday. Eligible students are seniors who plan to go into a residency in family medicine. Selection is based on academic excellence, character, bedside manner and commitment to practice in a rural area of Mississippi. The Russell Award is presented on Honors Day.

W.B. Saunders Medical Physiology Award consists of a book award and framed certificate presented to the medical or graduate student with superior scholastic performance in the medical physiology course.

Sigma Xi Student Research Awards consist of a certificate and a cash prize awarded annually to a medical student and a graduate student for the best original research work.

Robert D. Sloan Award honors the first chairman of the Department of Radiology. It includes a textbook and plaque and goes to the senior considered most outstanding in radiology.

Mark T. Smith Memorial Award was established by the Class of 2000 in memory of Mark Thompson Smith, a classmate, to a medical student with a true caring Christian spirit and attitude towards classmates, instructors, and patients; with intellectual curiosity in the field of medicine, and enthusiasm for life with a heartfelt smile even when confronted with a challenge.

J. Robert Snavely Award, established in memory of Dr. J. Robert Snavely, first chairman of the Department of Medicine, consists of a plaque and cash award to a senior medical student for outstanding scholastic achievement in internal medicine.

Department of Surgery Prize is awarded to the senior medical student for outstanding performance in surgery during the clinical years.

Virginia Stansel Tolbert Award, sponsored by the Mississippi State Medical Association, is a cash prize and plaque given to a medical student who has demonstrated superior scholarship and leadership in campus activities. Additionally, the recipient must exhibit interest in issues which affect the profession and willingness to devote time and effort to those matters.

Helen R. Turner Academic Medicine Award, established in 2012 by the University of Mississippi School of Medicine, honors Dr. Helen Turner and her contributions to academic medicine, which have laid a foundation for success to benefit the next generation of health care professionals, their future patients, and the communities in which they will serve. This award is presented to a fourth year medical student selected on the basis of demonstrated promise in the field of academic medicine.

Jimmy Waites, MD, Student of the Year Award, sponsored by the Mississippi Physicians Care Network and the Medical Alumni Chapter, consists of a cash prize and plaque designation. The award honors the memory of Dr. Waites who was a longtime family physician in Laurel and a member of the School of Medicine’s second graduating class. The award is presented to a graduating senior medical student selected by the senior class in recognition of those qualities most desired in a physician - which Dr. Waites so exemplified.

ANESTHESIOLOGY

Douglas R. Bacon, MD, MA, Professor and Chair

FACULTY

Professors:
Claude Brunson, MD
Ike Enator, MD, MPH

Associate Professors:
Ines Berger, MD
Arthur Calimaran, MD
Daniel Castilo, MD

Assistant Professors:
John Adams, MD
Suwarma Anand, MD
Harris Baig, MD
John W. Bethea Jr., MD

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
THIRD YEAR

ANES 630. SURVEY OF ANESTHESIA. A two week elective course for students with an interest in Anesthesiology. The goals of the course are to introduce M3 students to the daily practice of anesthesiology and to improve the student’s understanding of the diagnosis and treatment of pain, including the psychosocial and economic impact of pain on the patient and society. The student will spend time with the practitioners in several subspecialties (pediatrics, chronic pain management, general and obstetrical anesthesia) learning about the specialty and discussing how anesthesia fits into and helps fulfill their life goals. (Six (4) students each rotation unless special permission granted by course director. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

FOURTH YEAR

ANES 651. CLINICAL ANESTHESIOLOGY. A one month elective affording an overview of and introduction to anesthesiology. Under direct supervision, students will undertake “hands-on” participation in all parts of anesthesia care with particular emphasis on: preoperative evaluation/preparation, vascular access, airway maintenance (including intubation), physiology and pharmacology of anesthesia care and patient homeostasis (including vasoactive drugs) monitoring, and immediate postoperative management. Attendance is required at all departmental didactic sessions and special student lectures. This course is oriented to the student who is seriously considering Anesthesiology as a specialty. (One (2) student each month. Traditional - EL Clinical Rotation (10 credit hours)

ANES 652. PAIN MANAGEMENT. The purpose of this course is for medical students to develop an understanding of the knowledge and skills related to the practice of pain management and to facilitate a greater understanding of the contributions of pain management in the health care system. Students will participate in all aspects of pain management: acute, chronic and cancer pain. Students will learn the concept of pain as a multi-dimensional experience. They will participate in the evaluation and treatment of complex pain patients. This rotation is for any medical student with an interest in chronic pain management regardless of planned specialty. (One (1) student each month unless special permission is granted by course director. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

ANES 653. ANESTHESIOLOGY & PERI-OPERATIVE MEDICINE. A one-month elective that will provide a broad overview of all aspects of peri-operative medicine and is equally applicable to the students interested in anesthesiology and those pursuing other specialties. This course is divided in to 4 one-week phases, which include general adult anesthesiology, pediatric anesthesia, obstetrical anesthesia, and pain management. Techniques of airway management, invasive line placement, EKG interpretation, general and regional anesthesia techniques, cardiac output measurement, and concepts of pain management will all be extensively reviewed. (Two (2)) students each month unless special permission granted by course director. Traditional - EL Clinical Rotation (12 credit hours)

ANES 851. ANESTHESIA EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

ANES 852. ANESTHESIA EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

BIOCHEMISTRY

John J. Correia, PhD, Professor and Interim Chair

FACULTY

Professors Emeriti:
Steven Thomas Case, PhD
Connie McCaia, MD, PhD
Mona Trempe Norcum, PhD

Mark O. J. Olson, PhD
Donald Blaine Sittman Jr., PhD
Lawrence Ira Slobin, PhD

Professor:
Azzedine Atfi, PhD
David T. Brown, PhD
Michael D. Hebert, PhD

Jonathan P. Hosler, PhD
Sharon Lobert, PhD

Albert Jacques Wahba, PhD
Harold Birts White Jr., PhD
Drazen Raucher, PhD
Parminder J.S. Vig, PhD

Associate Professor Emeritus:
Charles Leon Woodley, PhD
**Associate Professors:**
- Wael ElShamy, PhD
- Luis Martinez, PhD
- Radhika Pochampally, PhD
- Damian G. Romero, PhD

**Assistant Professors:**
- Gene L. Bidwell, PhD
- Eric George, PhD
- Maureen Wirschell, PhD
- Ingrid Espinoza, PhD

**FIRST YEAR**

**BIOCH 610. BIOCHEMISTRY.** Comprehensive course in human biochemistry including protein and nucleic acid structure, enzyme function and regulation, cellular membranes, molecular genetics and protein synthesis, signal transduction and hormonal control mechanisms, vitamins, the metabolism of carbohydrates, fats and protein, cellular bioenergetics and the synthesis of lipids, carbohydrates, proteins and nucleic acids. Traditional Lecture (10 credit hours)

**DERMATOLOGY**

Robert T. Brodell, MD, Professor of Pathology and Professor and Chair, Department of Dermatology

**FACULTY**

**Professors:**
- Robert T. Brodell, MD
- Stephen E. Helms, MD
- Nancye K. McCowan, MD

**Associate Professors:**
- Kimberley H.M. Ward, MD
- Julie P. Wyatt, MD

**Assistant Professors:**
- William H. Black, MD
- Jeremy D. Jackson, MD
- Jasmine C. Hollinger, MD
- Stephanie K. Jacks, MD

**Affiliate Faculty:**
- Anna C. Asher, MD
- Ralph C. Daniel, MD
- Billy Walker, MD
- Gary G. Bolton, MD
- Jennifer Schulmeier, MD
- Vinayak Nahar, MD, PhD
- James M. Brock, MD
- Angela Wingfield, MD
- William Waller, MD

**THIRD YEAR**

**DERM 640. DERMATOLOGY.** During this two week rotation, third year medical students will gain experience in the evaluation and treatment of the 20 most common dermatologic conditions encountered in an academic clinic setting and less common “classic” entities. The student will participate in “team-based” patient care involving dermatology residents, primary care residents, and a full time attending dermatologist. Over the course of two weeks, they will be awarded increasing responsibility for taking histories, describing patients using dermatologic terminology, and synthesizing an initial differential diagnosis and will learn to perform a KOH preparation and scabies preparation. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

**FOURTH YEAR**

**DERM 664. DERMATOLOGY.** The student will become familiar with the scope of Dermatology and the integration of Dermatology with other medical and surgical specialties. The student will gain exposure to pediatric, general, and surgical dermatology. The emphasis is on ambulatory components of the specialty and aims to help students gain a basic understanding of the diagnosis and management of common dermatologic problems. As part of the rotation, students will be expected to give a five minute PowerPoint presentation on an interesting case or topic, as well as take a multiple choice and Kodachrome test (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**DERM 665. DERMATOLOGY RESEARCH.** Individualized programs for four weeks are arranged with the Chairman’s approval for senior students who would like to participate in dermatologic research or other special activities as determined by the Program Director’s office in the Department of Dermatology. This rotation will allow each student to gain experience in research endeavors. (One (1) student each month. Available all months.) Traditional Independent Study (10 credit hours)

**DERM 851. DERMATOLOGY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional Clinical Rotation (10 credit hours)

**DERM 852. DERMATOLOGY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional Clinical Rotation (10 credit hours)
EMERGENCY MEDICINE
Alan Jones, MD, Professor and Chair

FACULTY

Professors:
Robert D. Cox, MD, PhD
Richard W. Finley, MD
Robert L. Galli, MD
Loretta Jackson-Williams, MD, PhD
James C. Kolb, MD
LouAnn H. Woodward, MD
Richard Summers, MD

Associate Professors:
Andrew Anderson, MD
Jonathan Jones, MD
L. Kendall McKenzie, MD
Risa Moriarity, MD
Jeffery Orledge, MD
Chester Shermer, MD
James Thompson, MD
Brian Tollefson, MD

Assistant Professors:
Allison Barrett, MD
Eric Bell, MD
Damon Darsey, MD
Erin Dehon, PhD
John McCarter, MD
Trey Nichols, MD
Michael Puskarich, MD
John Petey Sandifer, MD
Sarah Sterling, MD

THIRD YEAR

EM 630. LIFE-SAVING SKILLS. The purpose of this course is to prepare students to master the rapid assessment and management of emergency medical conditions. The first week of the rotation is simulation based. Skill training modules teach adult basic and advanced airway management, arterial and central vascular access, lumbar puncture, and key resuscitative concepts. These modules include on-line self-directed learning and hands-on instruction using task trainers. Students will also manage patients in life threatening conditions using high fidelity adult simulators. The students with form code teams and develop the cognitive and hands on skill necessary to successfully participate in a team resuscitative effort. Emphasis is placed on urgent patient assessment, situational awareness, application of ACLS protocols, skilled and timely execution of life-saving interventions, usage of equipment (code cart, defibrillator), team work and communication. During the second week of the rotation, students participate in patient care in three to four, 8-hour long shifts in the Emergency Department. Evaluations include pre- and post-tests, check-list of simulated patient management scenarios and assessment of clinical performance during shifts in the Emergency Department. (Six (6) students each rotation. Available all rotations September through May.) Traditional Clinical Rotation (5 credit hours)

FOURTH YEAR

EM 680. EMERGENCY MEDICINE. This course is designed to give senior medical students a relevant experience in adult emergency medicine. Students function as an acting intern and work under direct supervision of the emergency medicine attending physicians. They take part in the initial evaluation and subsequent management of patients presenting with emergent and urgent problems of various organ systems. Students are fully supported by emergency medicine residents and attending physicians, but the student is the patient’s primary care giver. Students are expected to formulate thorough differential diagnoses, treatment plans and perform any needed procedures. A series of didactics are presented to the students during the course of the month including small group discussions, lectures and procedural skills practice. Students also learn to manage critically ill patients through the use of advanced simulation. Final evaluations are based on demonstration of competency in clinical duties, completion of skills and simulation labs, formal case presentation, and performance on written mid-term and post clinical assessments. Opportunities are provided to work with the AirCare flight team while working in the Emergency Department. (Six (6) UMMC students each month in July through October, with preference given to students interested in applying for emergency medicine residencies. Students interested in taking the rotation in July through October must first contact Sherry Ford (sford2@umc.edu) or (601) 984.5584. Nine (9) UMMC students in November through May.) Traditional - EL Clinical Rotation (12 credit hours)

EM 682. MEDICAL TOXICOLOGY. During this rotation senior medical students will serve as a member of the Medical Toxicology consult team at the University of Mississippi Medical Center. The purpose of the rotation is to learn the basics of medical management of the poisoned patient and the acute and chronic effects of toxic exposures. The student will work approximately 4 hours per day at the Mississippi Poison Control Center (PCC) and spend the remaining time as a member of the Medical Toxicology Consult Service. The student will be responsible for evaluating patients for whom toxicology consults have been requested in the adult or Pediatric Emergency Department or hospital inpatients at the University of Mississippi Medical Center, in conjunction with residents and the Medical Toxicology Facility. The student will also see patients during scheduled outpatient clinics. The student will participate in patient rounds, toxicology conferences, and will meet as scheduled with faculty and residents. (Two (2) students each month. Available August, September, November, February, March, and April.) Traditional - EL Clinical Rotation (10 credit hours)

EM 683. EMERGENCY MEDICINE RESEARCH ELECTIVE. This senior medical student course is a research elective designed to include instruction in research methodology and medical literature. The student may participate in original research under faculty supervision or in on-going research projects with the faculty. There are opportunities for clinical studies as well as transitional bench work. (Two (2) students each month. Available all months.) Traditional - EL Lecture (10 credit hours)
EM 686. WILDERNESS AND DISASTER MEDICINE. This course is designed to familiarize the senior medical student with the unique aspects of providing medical care in austere environments. Didactics and practical exercises are specifically geared to provide the student with a fund of knowledge that allows for a logical, controlled, and competent approach to emergencies uniquely encountered in wilderness and disaster scenarios. Completion of specific certification requirements at the beginning of the course will allow students to electively participate in any deployments of the State Medical Assistance Team (SMAT) mobile hospital during the month of instruction and will allow for continued team membership for future deployments. (Six (6) students per month. Available in April only.) Traditional Clinical Rotation (10 credit hours)

EM 851. EMERGENCY MEDICINE EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair's approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

EM 852. EMERGENCY MEDICINE EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair's approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

FAMILY MEDICINE
Diane K. Beebe, MD, Professor and Chair

FACULTY

Professor Emeriti:
- Wilfred Reginald Gillis, MD
- Warren A. Jones, MD
- Deirdre M. Phillips, MD

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- Robert Cowan Forbes, MD
- William Harry Reploge, PhD
- Patrick O. Smith, PhD, ABPP
- Thais Brown Tonore, MD

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- Jennifer J. Bryan, MD
- Molly S. Clark, PhD, ABPP
- James A. Cloy, MD
- Penni S. Foster, PhD
- Natalie W. Gaughf, PhD, ABPP
- Ann M. Butler Kemp, MD
- David R. Norris Jr., MD
- Holly H. Peeples, MD
- Shannon Pittman Moore, MD
- Janet P. Ricks, DO

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- Kelly M. Bishop, MD
- Deborah S. O'Bryan, MD
- Joyce Olutade, MD
- Sonya Clemmons Shipley, MD
- John P.F.H. Vanderloo, MD
- Irma H. Welch, MD
- Kathleen M. Young, PhD, MPH

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- Andrew Adams, MD
- Michael H. Albert, MD
- Timothy Alford, MD
- Jeffrey Anderson, DO
- Carla Armstrong, MD
- William Ray Arnett, MD
- V. Isaac Altman, MD
- Michael Bagwell, DO
- David A. Ball, MD
- Pamela Banister, MD
- Jean Barker, MD
- Kyle S. Bateman, MD
- Berthold Beisel, MD
- Bruce Black, MD
- Jason Blalock, MD
- Arturo Blanco, MD
- Phillip Blount, MD
- Charles Borum, MD
- Krista Boyette, MD
- Steven C. Brandon, MD
- G. Andy Briens Jr., MD
- Charles F. Brock, MD
- Anne Brooks, DO
- David J. Brooks, MD
- Greg Browning, MD
- Karen Bruce, MD
- Edward Bryant, MD
- R. Lee Giffin, MD
- Thomas Senter Glasgow, MD
- Margaret Glynn, MD
- Barbara B. Goodman, MD
- William M. Grantham, MD
- Thomas Hale, MD
- James R. Haltom, MD
- Stephen Hammack, MD
- Randall Hankins, MD
- Stephen Harless, MD
- John Francis Hassell, MD
- Landall Hathorne, MD
- William K. Harris, MD
- Gina Heath, MD
- Marc Hellrung, MD
- Mary Shawn Helmhout, MD
- Kenneth Hensarling, MD
- Robert Herrington, III, MD
- John Phenis Hey, MD
- Chip Holbrook, MD
- John J. Hollister, MD
- Michael Holman, MD
- A. Archie Howard, MD
- Michael S. Huber, MD
- Jack Graham Hudson, MD
- Karen A. Hughes, MD
- Randall Huling, MD
- Scott E. Nelson, MD
- Will Nichols, MD
- Christy Nohra, MD
- Michael R. O'Neal, MD
- Darrell W. O'Quinn, MD
- Ginger Pace-Hearndon, MD
- Wilson Parry, MD
- Katherine Patterson, MD
- Steven Patterson, MD
- Paul M. Pavlov, MD
- Todd Perkins, MD
- T. Ray Perrine, MD
- Doug Perry, MD
- James Glenn Peters, MD
- Katrina Poe-Johnson, MD
- James Polk, MD
- Charles Pruitt, MD
- Ashley Pullen, MD
- Maria G. Rappai, MD
- Brady Richardson, MD
- Mal Riddell, DO
- Reginald Rigsbys, MD
- Amanda R. Rice, MD
- James M. Riser, MD
- David Roberts, MD
- Walter Rose, MD
the remaining two weeks, the student will work with Department of Family Medicine faculty and residents at either Mississippi Baptist
Medical Center, University Medical Center, Flowood Family Medical Center, or Lakeland Family Medical Center. Traditional Clinical Rotation
student to explore and expand his or her own ethical beliefs. Available for four (4) students per elective cycle.

FM 631. M3 FAMILY MEDICINE CLERKSHIP. This course introduces the third-year medical student to the concepts of Family Medicine and
primary care. The six-week experience includes a four-week preceptorship working one-on-one with a family physician in private practice in Mississippi. Students are matched with preceptors outside the Jackson metropolitan area and housing can be arranged if needed. During the remaining two weeks, the student will work with Department of Family Medicine faculty and residents at either Mississippi Baptist Medical Center, University Medical Center, Flowood Family Medical Center, or Lakeland Family Medical Center. Traditional Clinical Rotation (16 credit hours)

FM 632. ETHICS ELECTIVE. The two-week elective in Medical Ethics is designed to give the junior medical student an overview of ethical
dilemmas that are encountered in ambulatory and inpatient practice. An emphasis is placed on self-study and reflection to allow each
student to explore and expand his or her own ethical beliefs. Available for four (4) students per elective cycle. Traditional Clinical Rotation
(5 credit hours)

FOURTH YEAR

FM 651. FAMILY MEDICINE PRECEPTORSHIP. The student spends one month with a preceptor in private practice within the state.
Emphasis is placed upon student responsibility for patient care and developing treatment plans. The student is provided with first-hand
exposure to clinical, administrative, financial and social aspects of the private practice in Family Medicine. The student is evaluated by the
preceptor. Students must register in the departmental office as well as the Registrar’s Office. (Four (4) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
FM 652. M4 FAMILY MEDICINE CLERKSHIP. The senior student is assigned to a work in the department’s Family Medicine Residency Clinics where he or she sees ambulatory patients and participates in department conferences. The student is evaluated by the physician team. Seniors must register in the departmental office as well as with the Registrar’s Office. Two (2) students each month. Available all months except July.) Traditional - EL Clinical Rotation (12 credit hours)

FM 654. COMMUNITY MEDICINE CLERKSHIP. Emphasis is placed on community health needs, health delivery systems, and environmental, occupational, and industrial health hazards. The student will perform a community health assessment that will be presented to supervising faculty. The student will meet with district officers of the health department, home health agencies, Hospice Ministries, free clinics in the Jackson Metropolitan area, and arrangements will be made for the student to choose any other areas of public health interest to visit. Students must register in the departmental office as well as with the Registrar’s office. Arrangements for the rotation must be made at least one month in advance. (One (1) student each month. Available all months. Traditional - EL Clinical Rotation (10 credit hours)

FM 656. FAMILY MEDICINE IN-PATIENT SERVICE. The student will spend one month working with a team of Family Medicine residents and faculty and serving as a sub-intern. The student, with resident and faculty supervision, will evaluate patients in the emergency room, admit patients for continuing care, and assume primary responsibility for hospital care of patients to include coordination of consultation, as appropriate. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

FM 657. RESEARCH IN FAMILY MEDICINE. A primary care research opportunity, this course includes instruction in research methodology and medical writing. Students may do original research under faculty supervision or participate in on-going research projects. Arrangement with the departmental office should be made three months in advance of the block. (Two (2) students each month. Available all months.) Traditional - EL Lecture (10 credit hours)

FM 658. MEDICAL ETHICS. The senior student is assigned to a departmental faculty member. Emphasis is placed on ethical issues in a clinical setting. The student will choose and present four topics of personal interest during the month. They will discuss ethical considerations regarding the topics and will also form and defend their own viewpoints. The student must register with the departmental office, as well as with the Registrar’s office. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

FM 662. ADVANCED MEDICAL PRACTICE. While medical school prepares its graduates to collect and analyze information in order to diagnose diseases and provide treatment for patients, there are many gaps in what is taught regarding business and practice management skills. Additionally, gaps may be found in students’ training to handle many challenging situations such as end-of-life care. A decreased ability to perform appropriate and correct physical examination maneuvers is also being noted by residency faculty. This course seeks to address these gaps by providing students with skills in practice management, the legalities of the medical profession, advanced physical examination skills, and challenging patient situations including chronic pain management and end-of-life care. Traditional - EL Clinical Rotation (10 credit hours)

FM 851. FAMILY MEDICINE EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

FM 852. FAMILY MEDICINE EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

MEDICINE
Dan Jones, MD, Professor and Interim Chair

FACULTY

Professors Emeriti:
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Stanley W. Chapman, MD
Eduardo Gaitan, MD
Gailen D. Marshall Jr., MD, PhD
Ervin Fox, MD

Professors:
Bryan Barksdale, MD
Kenneth Bennett, MD
Rajesh Bhagat, MD
Carolyn Bigelow, MD
G. Douglas Campbell, MD
Adolfo Correa, MD
Richard deShazo, MD
Ralph Didlake, MD
Sharon Douglas, MD
Bernard Dreiling, MD
Albert Dreisbach, MD
Stephanie Elkins, MD
Joe C. Files, MD
Richard W. Finley, MD
Ervin Fox, MD
Robert Galli, MD

Gilliam Swink Hicks, MD
Richard Hutchinson, MD
John Jackson, MD
Joe Norman, MD
Harold Henderson, MD
Stephen Hindman, MD
Terry Jackson, MD
Daniel W. Jones, MD
Luis Juncos, MD
Stephan Kemp, MD
Tawfik Khansur, MBBS
Kent Kirchner, MD
Christian A. Koch, MD
Kenneth Kokko, MD, PhD
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Angel K. Markov, MD
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Marcy Petrini, MD
Roland Robertson, MD
Helen Turner, MD, PhD
Deborah Minor, PharmD
Charles Moore, MD
Thomas H. Mosley Jr., PhD
Rathel L. Nolan, MD
Shirley Schlessinger, MD
Thomas N. Skelton, MD
James Sones, MD
John R. Spurzem, MD
Jimmy Stewart, MD
Jose Subauste, MD
Donna Sullivan, PhD
Ed Swiatlo, MD
Shou Tang, MD
J. Tate Thigpen, MD
Risa Webb, MD

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
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Elise Gomez-Sanchez, DVM
Joey P. Granger, PhD
Michael Griswold, PhD
Kenneth Hardy, MD, PhD

Warren May, PhD
Larry McDaniel, PhD
Michael McMullan, MD
W. Mark Meeks, MD
Leandro Mena, MD

James Wilson, MD
Gwen Windham, MD, MHS
Michael Winniford, MD
Douglas Wolfe, MD
Marion Wofford, MD

**Associate Professor Emeritus:**
William Nicholas, MD.

**Associate Professors:**
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George Abraham, MD
Shema Ahmad, MD
Myrna Alexander, MD
Fred Asher, MD
Jessica Bailey, PhD
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Brian Borg, MD
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John Cross, MD
Katherine Travis Gregg, MD
Cameron Guild, MD
Darryl Hamilton, MD

Kimberly Harkins, MD
Demondes Haynes, MD
Zeb Henson, MD
Michelle Horn, MD
Deborah Konkle-Parker, PhD
Lisa Maher, MD
Hao Mei, PhD
Margaret Miller-Davis, MD
Yuan-I Min, PhD
Carla Monaco, MD
Solomon Musani, PhD
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Thomas Payne, PhD
Louis Puneky, MD
Troy Rhodes, MD
Daniel Riche, PharmD

John Sheehan, MD
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John Showalter, MD
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Mohamed Omballi, MD
Andrew Ouzts, MD
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Venkataraman Palabindala, MD
Kumar Pallav, MD
John Parks, MD
Netrali Patel, MD
Chere Peel, MD
Rachel Peery, MD

Daryl Pollard, MD
Chelle Pope, MD
Raymond Portis, MD
Joe Pressler, MD
Naseem Qureshi, MD
Kristina Rehn, PhD
Eric Reiners, MD
Allen Richert, MD
Mohammed Rizwan, MD
Jolanta Roszkowska, MD
Sara Sanders, MD
Charletta Scott-Bennett, MD
Natalie Sheehan, MD
Patricia Stewart, MD
Takeki Suzuki, MD
Tanyanan Tanawuttiwat, MD
Kimberly Tarver, MD
Mary Beth Thorne, MD
Erica Walker, MD
Wei Wang, PhD
Richard Warren, MD
Felicia Wyatt, MD
Lian Xiang, MD
Licy Yanes, MD
Anne Yates, MD
Tauqueer Yousuf, MD
Xu Zhang, PhD

**Instructors:**
Jeanette Arnold, NP
Angela Boleware, CFNP
Bonnie Carminati, NP

Samira Grifoni
Olivia Henry, PhD
Ardell Hinton, MS

Kimberly Miller, NP
Mary E. Pearson, NP
Janice Pouns, NP

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
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Judith Dial, FNP
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Todd Adkins, MD
David S. Alberts, MD
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Phillip Belgrader, PhD
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Barry Bertolet, MD
Michael Boland, MD
Michael Boler, MD
Bernard Booth, MD
Sarah J. Broom, MD
Marino Bruce, PhD
Eman Boulis, MD
Tim Cannon, MD
Donna Kaye Cassell, MD
Kathryn Del Castillo-Areco, MD
Steven Clark, MD
John Clay, MD
John Cleary, PharmD
Virginia Crawford, MD
Amy Creighton, MD
Karl Crossen, MD
William Crowder, MD
Mary Currier, MD, MPH
Vonda Reeves Darby, MD
Gary Davis, MD
Quinton Dickerson, MD
Thomas Dobbs III, MD, MPH
Daniel Edney, MD
Tellis Ellis III, MD
Murray Estess Jr., MD
David Fleming, MD
Jefferson A. Fletcher, MD
Michael Forgione, MD
Jack Foster, MD
Ruth Fredericks, MD
Barry Gillespie, MD
Jerome Goddard, MD

Kelly Land, NP
Deyin Lu, PhD
Abulkhair Mamoon, PhD
Catherine Wells, NP
Tabitha Wells, NP

THIRD YEAR
MED 631. MEDICINE CLERKSHIP. This clerkship includes subject matter basic to the practice of caring for the adult patient in Internal Medicine. Students are assigned to hospital services at The University of Mississippi Medical Center and the Veterans Affairs Medical Center. Students learn to sharpen the assessment skills, record detailed histories, perform physical examinations and participate in clinical evaluation and therapy of patients as an integral member of the treatment team, working closely with the housestaff. Full time and clinical faculty provide instruction on ward rounds seven days a week. Both faculty and housestaff evaluate the student’s performance. Students must successfully complete all components in order to receive credit for the clerkship. Traditional Clinical Rotation (20 credit hours)

MED 633. Clinical Endocrinology. This elective is provided for third year students in order to develop a reasonable approach to the broad spectrum of endocrine disorders. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

MED 634. Outpatient Care of the Geriatric Patient. This elective provides third year students with the opportunity to care for geriatric patients. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

MED 635. HEMATOLOGY/ONCOLOGY. During this elective, students will be exposed to a wide variety of patients with malignancies of solid organs, as well as benign and malignant diseases of the blood. (Three (3) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)
MED 636. INFECTIOUS DISEASE. This elective provides third year students with the opportunity to develop history taking and physical exam skills pertinent to the evaluation of patients with an infectious disease. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

MED 637. PULMONARY MEDICINE. This course provides exposure to patients with pulmonary disorders in a combined in/outpatient educational experience. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

MED 638. RHEUMATOLOGY. This elective provides third year students with the opportunity to care for patients with rheumatic disorders in the combined in/outpatient setting. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

MED 640. AMBULATORY INTERNAL MEDICINE CLERKSHIP. The students will be exposed to a variety of pathologic conditions commonly encountered in the outpatient setting. (One (1) student each rotation. Available August through November and January through May.) Traditional Clinical Rotation (5 credit hours)

MED 641. CARDIOLOGY. This M3 elective provides a combined inpatient/outpatient educational experience for junior medical students. Students will see patients with cardiology faculty and assist in obtaining medical histories, performing physical examinations, formulating differential diagnoses, and ordering appropriate diagnostic studies and therapeutic plans. Students will also spend time participating in interpretation/observation of selected cardiology imaging studies to include cardiac catheterization and echocardiography and will undergo focused training on electrocardiographic interpretation under the supervision of Cardiology faculty. This elective will provide a basic understanding of the diagnosis, treatment and prevention of common cardiac diseases. Student responsibilities will include approximately 40 hours of participation per week. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

FOURTH YEAR

MED 651. GENERAL MEDICINE CLERKSHIP. This required senior rotation in medicine will be an extension of the Junior Medicine Clerkship. Students will be assigned to the Veterans Affairs Medical Center or the University Medical Center. Students will elicit histories, perform physical examinations, and carry out appropriate diagnostic and therapeutic procedures under the supervision of the house staff and attending staff. Assignments will be made at the discretion of the Department of Medicine. (All students/required block. Scheduled in equal numbers of student from July through May.) Traditional - EL Clinical Rotation (12 credit hours)

MED 652. AMBULATORY MEDICINE. In this course students will concentrate on evaluation, diagnosis and treatment of the ambulatory patient. Each student will spend time in a variety of ambulatory clinics, including general medicine and certain medicine subspecialty clinics. This approach allows the student to gain a breadth of knowledge regarding ambulatory medicine and the various subspecialties associated with Internal Medicine. (Two (2) students each month. Available all months except July, December and May.) Traditional - EL Clinical Rotation (12 credit hours)

MED 653. SPECIAL MEDICINE. Individualized programs for four weeks or longer can be arranged with the Chairman's approval for students who are interested in obtaining experience in research or other areas of interest. (Five (5) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

MED 654. CARDIOLOGY. Students assigned to the Medical Center will work with the faculty and staff of the Division of Cardiology, participating in the work-up and care of patients admitted to the Cardiology services. There will be continuing patient responsibility and students will be expected to become familiar with the uses and indications for cardiac catheterization and other procedures, including echocardiography, electrocardiography and activities of the Cardiac Unit. Students will obtain experience in consultative cardiology. They will be expected to attend Cardiac Clinic and Cardiac Conferences. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

MED 655. GASTROENTEROLOGY. In this elective, the student will be assigned three patients per week for complete evaluation and current literature search. The student participates in divisional activities, including twice daily rounds, weekly teaching rounds, reviews of biopsy specimens, and attends all procedures such as endoscopy, liver biopsy, esophageal motility, percutaneous cholangiogram, etc. The student will meet weekly with the director of the division or senior fellow to review specific subjects in gastroenterology about which he or she has read during the week. (Four (4) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

MED 657. INFECTIOUS DISEASES. Diagnosis and therapy of a variety of infectious disease entities will be reviewed in detail with the student, who will be assigned to the infectious disease service of the University Medical Center or the VA Medical Center. The student will evaluate and follow consultation patients. The student will round daily with the service and attend and participate in weekly clinics and conferences at the VA Medical Center or UMMC. (Two (2) students each month. Available all months.) Traditional Clinical Rotation (10 credit hours)

MED 659. PULMONARY DISEASES/CRITICAL CARE MED. Students are assigned to the Pulmonary and Critical Care Medicine services at either UMMC or VAMC. At the University Hospital, the student will actively participate in the work-up and care of patients whose illnesses range from various respiratory diseases to the critically ill. At the Veterans Hospital, the students will be assigned to the Medical Intensive Care Unit and work closely with the Internal Medicine resident in the care of critically ill patients. Formal teaching rounds are held daily. Conferences and didactic lectures are held three times weekly. Students are introduced to pulmonary function testing, fiber optic bronchoscopy, hemodynamic monitoring, including invasive monitoring. (Eight (8) students each month, 4 at UMMC and 4 at the VA Medical Center. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

MED 660. NEPHROLOGY. The object of this elective is designed to familiarize the student with the evaluation, diagnosis, medical management, and follow-up of patients with diseases of the kidney. The student will be seeing patients on inpatient consult service and
will participate in decision making and care related to these patients. In addition, the students will receive a series of lectures covering different aspects of the kidney. Students are encouraged to attend one half day a week outpatient clinic at Jackson Medical Mall. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours).

**MED 661. GERIATRICS/GERONTOLOGY.** The goal of this elective will be to acquire experience and instruction in a multi-disciplinary approach to medical care in the older patient. The student will care for patients in multiple settings at UMMC including outpatient, in-hospital primary care, in-hospital consultation, and the Lakeland Nursing Center. The focus will be on common geriatric problems such as functional assessment, thyroid disease, osteoporosis, delirium, dementia, falls, urinary incontinence, geriatric pharmacology, and perioperative management. Additional emphasis will be directed towards a review of the physiological changes in aging that impact on disease manifestations in the elderly. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours).

**MED 663. AMBULATORY MED AMAZON JUNGLES OF PERU.** This course consists of two weeks spent at UMMC and two weeks spent in Peru. During the first two weeks, students review tropical medicine with emphasis on parasitology, infectious diseases and dermatology. During the last two weeks, students work with UMMC faculty to provide primary care to underserved residents of the province of Loreta in Peru. (Twelve (12) students per month. Available in February only.) Traditional - EL Lecture (10 credit hours)

**MED 666. Endocrinology.** This elective is designed to demonstrate the application of basic endocrinology to patient care. The student participates in the care of patients, attending endocrine clinics at UMMC and VA Medical Centers, and the diabetic clinic and hypertension clinic at UMMC. In addition, the student sees consultations at both hospitals, participates in the supervised reading, and attends the endocrine conference. Research opportunities are available. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**MED 667. MEDICAL CONSULT SERVICE ELECTIVE.** This elective gives the student an opportunity to be part of the medical consult team consisting of a senior house officer and a member of the Division of General Internal Medicine. This team is asked to see a wide variety of medical problems that occur in patients in other departments throughout the Medical Center. The assessment of surgical risk, common medical problems and unusual medical complications will be reviewed on daily rounds. The student will have an opportunity to assess patients on his own and jointly with the house officer. A practical approach to patient management in consultation will be provided, with ample opportunity for personal study in General Internal Medicine. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**MED 668. RHEUMATOLOGY.** This program will provide the student with experience in the clinical and laboratory assessment of patients with rheumatic diseases at the UMMC and VAMC. Students take an active role in the management of both ambulatory and hospitalized patients. The student will assume supervised primary care for those patients admitted to members of the rheumatology staff and will attend daily teaching rounds where the clinical, radiological and laboratory aspects of patients' diseases are discussed. Students will assume supervised primary care for patients that are being followed in the arthritis and lupus clinics at UMMC. At the VAMC, the student will assume supervised primary care for arthritis patients on the service of the rheumatology staff, will attend the arthritis clinic at the hospital, and will assist in providing consultations. At both hospitals, the students will receive instruction in performing joint injection, aspiration, and in synovial fluid analyses. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**MED 670. MEDICAL ONCOLOGY.** The objective of this elective is to familiarize the student with the evaluation, medical management, and follow-up of patients with cancer in both the inpatient and outpatient setting. The student will work closely with the inpatient attending and fellow to answer consults and will participate in decision-making and care related to these patients. In addition, the student will participate in the daily outpatient clinics with fellows and faculty for a broader exposure to patients with different malignancies. Self-assessment test material will be provided for student's use. (Three (3) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**MED 673. AMBUL INTERNAL MED IN ECON UNDERSERVD MS.** This course will concentrate on the evaluation, diagnosis, and treatment of the ambulatory patient in an underserved area in the state of Mississippi. Each student will spend time with a selected physician practicing primary care in an economically underserved area to obtain knowledge and experience in ambulatory medicine typical of primary care in these regions. Emphasis will be placed on arranging appropriate follow-up for each patient in the outpatient and inpatient settings. The training is focused on establishing a quality educational experience for the students in order to enhance recruitment of these future physicians into practice in these particular areas within our state. (Four (4) students per month. Available all months. Traditional - EL Clinical Rotation (12 credit hours)

**MED 674. HOSPITAL MEDICINE.** The Division of Hospital Medicine provides an in-patient educational experience for all M-4 students as an elective. Students will work directly with the hospitalist on a non-resident service. Students will perform history and physicals on new admissions and will write daily notes on select patients. Students will also be responsible for recommending daily orders, communicating with patients and family, communicating with consulting services, assisting with procedures and developing therapeutic plans. In addition to usual admissions typical to internal medicine (Congestive Heart failure, Pneumonia, DVT/PE, DKA, Acute Renal Failure, Sepsis, GI Bleed), students will also get to experience co-management of orthopedic, interventional radiology, and neurosurgical patients (Intracranial Hemorrhage, Preoperative and Postoperative management of hip fracture). (Two (2) students each month. Available all months except July.) Traditional - EL Clinical Rotation (10 credit hours)
MED 851. INTERNAL MEDICINE EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

MED 852. INTERNAL MEDICINE EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

MICROBIOLOGY
Richard Joseph O’Callaghan, PhD, Professor and Chair

FACULTY

Professors Emeriti:
Marvin Augusta Cuchens, PhD
Glenn Aden Gentry, PhD

Professors:
Eva Bengten, PhD
Victor Gregory Chinchar, PhD

Associate Professors Emeriti:
Jean LeBlanc Arceneaux, PhD

Associate Professors:
Brian J. Akerley, PhD
Bo Huang, MD, PhD

Assistant Professors:
Stephen J. Stray, PhD
Donna C. Sullivan, PhD

Instructors:
Aihua Tang, PhD
Sandy Wong, PhD

SECOND YEAR
MICRO 611. MEDICAL MICROBIOLOGY. Students will learn fundamentals of both the function and development of the human immune system and etiology, epidemiology, pathogenesis, laboratory diagnosis, and treatment of microbial agents (bacteria, fungi, parasites, and viruses) causing human disease. Extends through the first, second and third quarters of the second year. Traditional Lecture/Lab (12 credit hours)

NEUROBIOLOGY AND ANATOMICAL SCIENCES
Michael N. Lehman, PhD, Professor and Chair

FACULTY

Professors Emeriti:
Duane E. Haines, PhD

Professors:
Rick C. S. Lin, PhD
James C. Lynch, PhD

Associate Professor Emeritus:
March D. Ard, PhD

Associate Professors:
Ranjan Batra, PhD
Raymond Grill, PhD

Assistant Professors:
Marianne Conway, MD
Dongmei Cui, PhD, MD (Hon.)
Ryan Darling, PhD

FIRST YEAR
ANAT 611. MEDICAL GROSS ANATOMY. A study of the human body, including dissection, with an emphasis on clinical applications. Traditional Lecture/Lab (12 credit hours)

ANAT 613. MEDICAL HISTOLOGY AND CELL BIOLOGY. A study of the structure and function of cells, tissues and organs. Traditional Lecture/Lab (6 credit hours)

ANAT 616. MEDICAL DEVELOPMENTAL ANATOMY. A study of human development utilizing congenital defects as a basis for understanding normal development from conception to birth and beyond. Flipped Classroom (2 credit hours).
FOURTH YEAR

ANAT 651. REVIEW OF HUMAN ANATOMY. Permission of the course director required. (Twenty (20) students each month. Available January, February, March, and April.) Traditional - EL Laboratory (10 credit hours)

ANAT 652. REVIEW OF HUMAN NEUROBIOLOGY. Intensive review of regions and systems with particular emphasis on clinical neurosciences. Permission of the course director required. (Ten (10) students each month. Available July, August, September, October, November, and January.) Traditional - EL Lecture/Lab (10 credit hours)

ANAT 653. REVIEW OF HISTOLOGY W/CLINICAL CORRELAT. Microscopic review of tissues and organ systems emphasizing the integration of principles of histology and pathology with associated clinical cases. Permission of course director required. (Five (5) students each month. Available November, January and February.) Traditional - EL Lecture/Lab (10 credit hours)

ANAT 654. RESEARCH. Limited to students who wish to participate in relatively advanced research programs in neurobiology. Permission of the course director required. Traditional - EL Laboratory (10 credit hours)

ANAT 657. ADVANCED PROJECTS. Limited to students who wish to participate in clinical anatomy research/scholarship, including projects in educational scholarship. Permission of the course director required. Traditional - EL Lecture (10 credit hours)

NEUROLOGY

Alexander P. Auchus, MD, Professor and McCarty Chair

FACULTY

Professors:
- Huziefa Abubakr, MD
- Omar A. Abdulrahman, MD
- Thomas L. Eby, MD
- Robert M. Herndon, MD
- James C. Lynch, PhD
- Edward L. Manning, PhD
- Paul J. May, PhD
- Thomas Mosley, PhD
- John Westbrook Norton, MD
- Hartmut Uschmann, MD
- V. V. Vedanarayanan, MD
- Parminder J. S. Vig, PhD
- Mecheri Sundaram, MD

Associate Professors:
- Majid A. Khan, MD
- Rebecca M. Sugg, MD
- Gustavo D. Luzardo, MD
- Eric K. Undesser, MD

Assistant Professors:
- Mark D. Anderson, MD
- Gene L. Bidwell III, PhD
- Dani Choufani, MD
- Juebin Huang, MD PhD
- Duaa Jabari, MD
- Christa San Luis, MD
- Gilbert Mbeo, MD
- Amanda L. Witt, MD
- Michael C. Graeber, MD
- J. Larry Parker, MD

Affiliate Faculty:
- Angela Chandler, MD
- Ruth K. Fredericks, MD

THIRD YEAR

NEUR 632. CLINICAL NEUROSCIENCE. The Neuroscience Clerkship is a cooperative effort involving six departments: Neurobiology and Anatomical Sciences, Neurology, Neurosurgery, Pediatrics, Psychiatry and Radiology. The clerkship is administratively managed by Neurology. During this clerkship, students will expand their clinical knowledge of neuroanatomical principles discussed during the M1 curriculum and learn how medical problems that affect the nervous system are diagnosed and treated. Students will be assigned to clinics and hospital services at the UMMC and VAMC. Emphasis will be placed on the neurologic history and clinical examination in patients with acute and chronic neurological diseases. Students will also be required to attend and participate in multidisciplinary conferences. Traditional Clinical Rotation (12 credit hours)

FOURTH YEAR

NEUR 651. CLINICAL NEUROLOGY. This block may be set up to the student’s preference. (651) Student may work with private neurologist, (651a) have a clinic or primarily outpatient rotation e.g. Muscular Dystrophy, Seizure, (651b) Neuro-ophthalmology or (651c) assist with answering inpatient consults at either VA or UMMC. (Two (2) students each month. Available all months. Traditional - EL Clinical Rotation (10 credit hours)

NEUR 652. CLINICAL NEUROLOGY ACTING INTERNSHIP. Student will work under the supervision of house staff and attending staff on the inpatient Neurology service. (Two (2) students each month. Available all months except December.) Traditional - EL Clinical Rotation (10 credit hours)

NEUR 658. NEUROSCIENCE CRITICAL CARE. This course is designed for the student considering neuroscience critical care or a closely related field as a discipline. This clerkship was established to give future health providers a unique insight into the overlap of Neurology, Internal Medicine and Surgery. In this clerkship students will experience the impact of medical illness on the nervous system in patients with certain medical risk factors that have led to a neurological illness such as stroke, CNS infection or CNS tumor. It will also explore special circumstances that necessitate alteration in the usual management of medical problems as a result of a patient’s underlying neurological or neurosurgical problems/procedures as compared to the patients in a general ICU setting. Students will experience all inpatient critical
care aspects of neuroscience with emphasis on developing understanding of the management of the critically ill patient in general and the neuroscience, neurological patient specifically. (Two (2) students each month. Available all months.) Traditional Clinical Rotation (10 credit hours)

**NEUR 851. NEUROLOGY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**NEUR 852. NEUROLOGY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**NEUROSURGERY**

H. Louis Harkey III, MD, Professor and Chair

**FACULTY**

**Professors:**
Andrew D. Parent, MD

**Associate Professors:**
Gustavo D. Luzardo, MD
Robert A. McGuire, MD
Eddie Perkins, PhD
J. Carlos Pisarello, MD

**Assistant Professors:**
Jason E. Tullis, MD
Hartmut Uschmann, MD

**Affiliate Faculty:**
Jorge Alvernia, MD

**FOURTH YEAR**

**NS 655. NEUROSURGERY.** Four week rotation to be served at one of the Medical Center neurological services and will consist of patient care, diagnostic studies, surgery, as well as joint conferences and clinics. Independent study projects in areas of specific student interest will be assigned. (Four (4) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**NS 851. NEUROSURGERY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**NS 852. NEUROSURGERY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**OBSTETRICS AND GYNECOLOGY**

James M. Shwayder, MD, JD, Professor and Chair

**FACULTY**

**Professors Emeriti:**
Helen Barnes, MD
Richard C. Boronow, MD

**Professors:**
James A. Bofill, MD
Sheila D. Bouldin, MD

**Associate Professors:**
Husam Abed, MD
Jermaine E. Gray, MD
John Isaacs, MD

**Assistant Professors:**
Chris Ball, MD
Kyle Ball, MD
Charlene Collier, MD
Mary Kinney L. Corley, MD

**Instructors:**
Penni L. Smith, PhD
THIRD YEAR

OB/GYN 631. OBSTETRICS AND GYNECOLOGY. The third-year clerkship in obstetrics-gynecology is designed to provide a strong clinical base in normal and abnormal obstetrics and gynecology along with exposure to the subspecialties and health maintenance strategies for women. Students rotate in small groups through labor and delivery, the high risk obstetric service, the women’s urgent care center, gynecology, urogynecology and/or gynecologic oncology over a 6 week time frame. Students participate in all aspects of outpatient and inpatient care. They also assist during selected surgical cases. Obstetrical delivery experience is provided with supervision by attending faculty and residents. An interactive didactic lecture series is supplemented by weekly tutorial clinical problem solving sessions with faculty preceptors. Students actively participate in resident and faculty teaching rounds and attend all departmental conferences, including grand rounds and preoperative conference. Traditional Clinical Rotation (16 credit hours)

FOURTH YEAR

OB/GYN 653. HIGH RISK OBSTETRICS. The student will actively participate in the hospital management of high risk obstetric patients under the supervision of the Maternal-Fetal Medicine faculty and fellows. The student will also be involved with patients receiving genetic counseling and undergoing antenatal diagnosis. In addition to the clinical experience, tutorial sessions with perinatal faculty and fellows will provide the student with an understanding of current literature and an opportunity to explore a specific topic in-depth. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

OB/GYN 655. Labor and Delivery. Under the supervision of an obstetric resident and the faculty, the acting student will participate in the management of patients admitted to labor and delivery. In addition, the student intern will learn to recognize antepartum, intrapartum, and postpartum complications as well as recognize and manage obstetric emergencies. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

OB/GYN 656. OPERATIVE GYNECOLOGY. Students will spend one calendar month with either the GYN A (benign gynecology) or the GYN B (urogynecology) service. They will participate in all activities undertaken by the respective service including ambulatory clinics, operative experiences, conferences/didactics, small group sessions, and care for unscheduled hospital admissions. The student will work closely with the residents and faculty as a vital member of the team, carrying the same patient load that is expected of a PGY-1. This should prepare the student for this level of service activity upon graduation. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

OB/GYN 658. GYNECOLOGIC ONCOLOGY. The student will actively participate in the management of gynecologic oncology patients. This includes preoperative and postoperative management as well as assisting in radical surgery and medical admissions. An emphasis is placed on allowing an increased level of clinical responsibility and faculty interaction. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

OB/GYN 659. OB/GYN AMBULATORY CARE. Students are responsible for seeing new and return patients in the OB- GYN ambulatory care setting. On the first visit, a complete history is taken. On return patient visits, an interval note is recorded. All examinations, diagnoses and suggested treatments are supervised by the attending physician. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

OB/GYN 660. OB/GYN RESEARCH. This course is designed to teach M4 students research tools and their application to answering medically relevant research questions, specifically of interest to those specializing in Obstetrics & Gynecological research. (Ten (10) students each month. Available September only.) Traditional Independent Study (10 credit hours)

OB/GYN 661. OB/GYN FUND OF GYNECOL & MIN INVAS SURG. THE course is designed for students pursuing a surgical career who are interested in increasing their knowledge of pelvic anatomy and fundamental surgical skills with an emphasis in minimally invasive surgery. The student will complete a structured curriculum that includes pelvic anatomy, surgical instrumentation, surgical energy, and fundamental laparoscopic skills. The student will participate in clinical activities including observation in the operating room one and one half days a week and will be involved in direct patient care two half days in outpatient gynecology clinics. The remainder of the time will be in self-directed study and surgical simulation skills. The student will be assigned a mentor from the Gynecology Division to supervise the completion of the course. (One (1) student each month. Available all months except for November and December.) Traditional Clinical Rotation (12 credit hours)

OB/GYN 851. OBSTETRICS AND GYNECOLOGY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

OB/GYN 852. OBSTETRICS AND GYNECOLOGY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)
OPHTHALMOLOGY
Kimberly Crowder, MD, Professor and Chair

FACULTY

Professor Emeritus:
Connie S. McCaa, MD, PhD

Professors:
James J. Corbett, MD
James Randall Jordan, MD

Associate Professor Emeritus:
Warren Woodrow Johnson, MD

Associate Professors:
Bo Huang, MD
James Carlyle Lynch, PhD

Assistant Professors:
Rosanna Bahadur, MD
Jay Craddock, MD
Heather Hancock, MD

Affiliate Faculty
William Magnum Aden, MD
Victor John Ford III, MD
William Clay Ashford, MD
Ronald Glenn Herrington, MD
Michael J. Borne, MD

THIRD YEAR
OPHTH 630. INTRODUCTION TO OPHTHALMOLOGY. The purpose is to give M-3’s a brief overview of the clinical and surgical practice of ophthalmologists. This will include teaching students very basic eye examination techniques and diagnoses, geared toward a primary care physician. (One (1) student in August. Two (2) students each rotation September through May.) Traditional Clinical Rotation (5 credit hours)

FOURTH YEAR
OPHTH 659. OPHTHALMOLOGY I. The material covered includes ophthalmology for non-ophthalmologists especially as related to family practice, internal medicine and pediatrics. Areas covered include ophthalmology in systemic disease, neuro-ophthalmology, visual field testing, motor field testing, pediatric ophthalmology, strabismus, external disease, glaucoma screening and tonometry. This rotation will include the University and Veterans eye programs, with time spent in both clinics. Course content can be modified to meet the specific requirements of a given student. (Two (2) students each month. Available all months October through May.) Traditional - EL Clinical Rotation (10 credit hours)

OPHTH 660. OPHTHALMOLOGY II. Survey of ophthalmology as a specialty is primarily for those students considering it as a career. This course consists of office practice, slit lamp microscopy, refraction, contact lens fitting, glaucoma screening, tonometry, indirect binocular ophthalmoscopy and surgical ophthalmology as assistant in the operating room. (Two (2) students each month. Available July through September.) Traditional - EL Clinical Rotation (10 credit hours)

OPHTH 851. OPHTHALMOLOGY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair's approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

OPHTH 852. OPHTHALMOLOGY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

ORTHOPEDIC SURGERY
George V. Russell, MD, Professor and Chair

FACULTY

Professors Emeriti:
Alan Edward Freeland, MD

Professors:
Hamed A. Benghuzzi, PhD
William Bennett Geissler, MD

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
**Associate Professors:**
- Gene Barrett, MD
- Matthew Graves, MD
- Lawrence Lee Haber, MD
- William Patrick McCluskey, MD
- John Marvin Purvis, MD
- M. Stanton Ward, MD
- E. Frazier Ward III, MD
- Matthew Graves, MD
- John Marvin Purvis, MD
- Lawrence Lee Haber, MD

**Assistant Professors:**
- Peter Arnold, MD
- Kendall Blake, MD
- Jennifer S. Barr, MD
- Patrick Bergin, MD
- Clay Spitler, MD
- Benjamin M. Stronach, MD
- Brian J. Tollefson, MD
- Patrick Wright, MD

**Instructors:**
- Bradford S. Martin, RN, MSN, FNP-C
- Hollis L. Purviance III, RN, C, MSN, FNP-C

**THIRD YEAR**

**ORTHO 630. ORTHOPEDIC SURGERY.** This course will give medical students the opportunity for exposure to the care of orthopedic patients through operative, clinical and emergency room assignments. Students will become familiar with and gain a basic understanding of musculoskeletal orthopedic problems. (Two (2) students each rotation. Available November through May.) Traditional Clinical Rotation (5 credit hours)

**FOURTH YEAR**

**ORTHO 657. ORTHOPEDIC SURGERY.** This is a 4-week rotation that is designed for students considering a residency in orthopedic surgery. The student will be exposed to outpatient, inpatient and surgical aspects of orthopedics as a specialty. Total care of the orthopedic patient, children and adults, represents the focal point of this rotation. Preoperative care, as well as experience in the operating room, will receive emphasis. (Three (3) students each month. Available July through October) Traditional - EL Clinical Rotation (12 credit hours)

**ORTHO 658. OUTPATIENT ORTHOPEDIC SURGERY.** Course to provide knowledge and skills necessary to diagnose and manage varying types of orthopedic problems likely to be encountered in outpatient settings and the ability to recognize problems requiring emergent orthopedic surgical referral. Students should contact the Orthopedic Department 8 weeks prior to the start of the block. (Three (3) students each month. Available November through April.) Traditional - EL Clinical Rotation (12 credit hours)

**ORTHO 851. ORTHOPEDIC SURGERY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair's approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**ORTHO 852. ORTHOPEDIC SURGERY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair's approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**OTOLARYNGOLOGY AND COMMUNICATIVE SCIENCES**

**FACULTY**

**Professor Emeritus:**
- Winsor V. Morrison, MD

**Professors:**
- Jeffrey D. Carron, MD
- Thomas L. Eby, MD, FACS
- J. Randall Jordan, MD, FACS
- William Mustain, PhD
- Thomas J. Payne, PhD
- J. Mark Reed, MD
- John M. Schweinfurth, MD
- Hong Zhu, MD, PhD
- Wu Zhou, PhD

**Associate Professor Emeritus:**
- James E. Peck, PhD

**Associate Professors:**
- Charles Bishop, AuD
- Lewis Chen, PhD
- Lana L. Jackson, MD.
- Christopher Spankovich, AuD, PhD

**Assistant Professors:**
- Rachel A. Cooper, AuD
- Issam Eid, MD
- Alex Elkins, AuD
- Lauren Geheber, AuD
- Vicki Gonzalez, AuD, PhD
- Claude F. Harbarger, MD
- Mary Frances Johnson, AuD
- Christopher E. Lee, MD
- Andrea F. Lewis, MD
- Lauren McNichol, AuD
- Denise Pouncey, AuD
- Tammy Sanders, MD
- Grace Sturdivant, AuD

**Instructors:**
- Meagan Allen, MS
- Josie Alston, MS
- Angie Brunson, MS
- LaQuisha Burks, MS
- Kimbrell Evans, MS
- Caroline Hunter, MS
- Ashley Legate, MS
- M. Andrea Lowrie, MS
- Jane Malphurs, MEd
- Laura McCarty, MS
- Kristen Palmer, MS
- Mary Lou Sorey, MS
- Susan Stringer, MS
- Mallory Upchurch, MS
- April Webb, MS
Kara Gibson, MA          Jesus Monico, MPH          Kathleen Wentland, MA
Tristen Harris, PA-C     Lara Monico, MCD
Hailey Henderson, MS     Jenna Nassar, MS

Affiliate Faculty:
Ranjan Batra, PhD        Carolyn Wiles Higdon, PhD          Clarence M. Osborne, MD
Charles R. Cannon, MD    James Robert House III, MD          Holly Peeples, MD
Michael H. Carter Jr., MD Harold Koldeney, DMD.          Mohammed Qaisi, DMD
Lin Chen, BS             Jinghe Mao, MD, PhD                   J. George Smith, MD
Kyle F. Gordon, MD       Luis Martinez, PhD                   William F. Sneed, MD
R. Darryl Hamilton, MD   James R. McAuley, MD

THIRD YEAR

OTO 630. OTOLARYNGOLOGY. Students will become familiar with the integration of otolaryngology with other medical and surgical specialties and gain hands on exposure to the subspecialties of otolaryngology. (Three (3) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

FORTH YEAR

OTO 661. OTOLARYNGOLOGY - SURGICAL. This course is designed for students considering a residency in otolaryngology. The student will be exposed to all outpatient, inpatient and surgical aspects of otolaryngology. Emphasis will be placed on developing an understanding of diagnosis and management of head and neck disorders. (Three (3) students each month July through October. One (1) student each month November through May.) Traditional - EL Clinical Rotation (12 credit hours)

OTO 662. PRIMARY CARE OTOLARYNGOLOGY. This course is designed for those students pursuing primary care fields to gain a better understanding of basic ear, nose and throat problems. Emphasis will be placed on recognition of and first line treatment of common head and neck diseases and proper consultation guidelines. (One (1) student each month. Available November through May.) Traditional - EL Clinical Rotation (10 credit hours)

PATHOLOGY

Janice Lage, MD, Professor and Chair

FACULTY

Professors Emeriti:
Mithra Dange Baliga, MBBS          Julius Major Cruse Jr., MD, PhD          Robert Edwin Lewis, PhD
Steven Bigler, MD                   Jonathan D. Fratkin, MD                  William A. Rock Jr., MD.
Sherman Bloom, MD                   Michael D. Hughson, MD

Professors:
William P. Daley, MD               Dana M. Grzybicki, MD                   Charulochana Subramony, MBBS
Kim R. Geisinger, MD               Stephen S. Raab, MD

Associate Professors:
Israh Akhtar, MD                    John C. Hancock, MD                     Jack R. Lewin, MB8Ch.
Ayman Asfour, MD                    Holly H. Hobart, PhD                    Varsha Manucha, MD
Saeed Bajestani, MD                Patrick Kyle, PhD                        James Neill, MD
Elizabeth Rhyme Flowers, MD         John T. Lam, MD                          Junming Wang, PhD
Christian Gomez, PhD               Anait Levenson, PhD

Assistant Professors:
Elizabeth C. Chastain, MD          Venkat K. Mannam, MBBS, PhD              Lisa Stempak, MD
Siraj El Jamal, MD                  Anna Mathew, MD                          Lisa Sullivan, MD
Maria Gonzalez, MD                  Volney E. Pierce, MD                     Jill M. Woodliff, MD
Zhi He, MD                          Barbara J. Proctor, MD                   Xinchun Zhou, MD
Michael Mahowald, MD               Jason M. Schallheim, MD

Instructors:
Ashley M. Illingworth              Jesus Monico, MPH

Affiliate Faculty:
Mark LeVaughn, MD                  Jennifer Schulmeier, MD                  Billy L. Walker, MD
Amy Parsons, MD

SECOND YEAR

PATH 621. GENERAL AND SYSTEMIC PATHOLOGY. Concepts of disease. This course extends over winter and spring semesters of the second year and is designed to give the student a broad conceptual understanding of disease processes as they relate to the ill patient. This course primarily deals with disease processes from the perspective of anatomic and clinical pathology, with pathophysiological principles emphasized throughout. Students are also introduced to the principles of appropriate utilization of the anatomic and clinical pathology laboratories, as well as to the proper interpretation of laboratory results. Self-study and small group seminar teaching are emphasized as
part of the case study approach, along with self study of virtual online gross and microscopic surgical and autopsy material. Traditional Lecture (16 credit hours)

THIRD YEAR

PATH 630. PATHOLOGY: ANATOMIC ELECTIVE. Students will be introduced to surgical pathology, autopsy, cytopathology and subspecialties. (One (1) student each rotation. Available all rotations. MUST BE SCHEDULED IN ADVANCE.) Traditional Clinical Rotation (5 credit hours)

PATH 631. PATHOLOGY: CLINICAL ELECTIVE. The student will develop a working knowledge of how the laboratory functions in providing results and the interpretation of results in clinical practice. (Two (2) students each month. Available all rotations. MUST BE SCHEDULED IN ADVANCE.) Traditional Clinical Rotation (5 credit hours)

FOURTH YEAR

PATH 651. PATHOLOGY, ANATOMIC. This elective is for students with an interest in anatomic pathology. The student will be introduced to the various disciplines in anatomic pathology, including general surgical pathology, autopsy, cytopathology, and subspecialties such as hematopathology, dermatopathology, neuropathology, and pediatric pathology to name a few. The student will learn the gross and microscopic pathology of surgical specimens and assist in performing an autopsy, including a review of history, examination of microscopic sections, and correlation of the pathologic findings with the clinical picture. This learning experience will be enhanced by attendance at conferences, where the student will review, as well as present interesting and unusual material. The student will be expected to complete all assignments for the month, including glass slide and digital image case studies, autopsy presentation, and review of pertinent and current literature. (Three (3) students each month. Available all months except July. MUST BE SCHEDULED IN ADVANCE.) Traditional - EL Lecture/Lab (10 credit hours)

PATH 652. PATHOLOGY, CLINICAL. An elective designed to introduce the student to the practice of Clinical Pathology through participation in activities of each section including Chemistry, Transfusion Medicine (Blood Bank), Microbiology, and Hematology. The student will develop a working knowledge of how the laboratory functions in providing laboratory results, and the interpretation of results in clinical practice. (Two (2) students each month. Available all months except July. MUST BE SCHEDULED IN ADVANCE.) Traditional - EL Laboratory (10 credit hours)

PATH 654. COMMUNITY PRACTICE PATHOLOGY. The student will develop a working knowledge of how a community practice pathology setting operates, and how community pathologists interact with their clinician colleagues. Students will be exposed to a broad range of pathology expertise including surgical pathology, cytopathology and clinical laboratory management. (One (1) student per month. Available July through May). Traditional Clinical Rotation (10 credit hours)

PATH 851. Pathology Extramural. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PATH 852. PATHOLOGY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PEDIATRICS

Frederick E. Barr, MD, MSCI, Professor and Chair

FACULTY

Professors Emeriti:
Blair E. Batson, MD
Zhengwei Cai, PhD
Owen B. Evans, MD
Sandor Feldman, MD
Rathi V. Iyer, MD
William A. Long, MD
Suzanne T. Miller, MD
Howard H. Nichols, MD
William F. Sistrunk, MD
James Clinton Smith, MD
Raphael C. Sneed, MD
David Goulding Watson, MD

Professors:
Istvan Arany, PhD
Bettina Beech, DrPH
Scott Benton, MD
Phyllis Bishop, MD
Uwe Blecker, MD
W. Richard Boyte, MD
Susan L. Buttross, MD
Elizabeth Christ, MD
Jeffrey Crout, MD
Benjamin Dillard, MD
Mehul P. Dixit, MD
Naznin Dixit, MD
Makram Ebeid, MD
Hannah Gay, MD
Charles H. Gaymes, MD
Glen Robert Graves, MD
James Albert Joransen, MD
James Keeton, MD
Mary Anne Kosek, MD
Joseph Marc Majure, MD
Gail C. Megason, MD
George William Moll Jr., MD
Michael Nowicki, MD
April Palmer, MD
Colette C. Parker, MD
Donald Joseph Raggio, PhD
Omar Abdul-Rahman, MD
Renate Savich, MD
William Hugh Sorey, MD
Jimmy Stewart, MD
Mary B. Taylor, MD, MSCI
Anne B. Yates, MD

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
### Associate Professors:

Tayssir Abusaa, MD  
Kim Adcock, PharmD  
Abhay Bhatt, MD  
Tami Brooks, MD  
Magnolia Castilla, MD  
Anderson Collier, MD  
Mobolaji Fumuyide, MD  
Lir-Wan Fan, PhD  
Catherine Cooley Faulk, MD  
Yangzheng Feng, MD  
Ivonne Galarza, MD  
Betsy Herrington, MD  
Michael Holder, MD  
Suvankar Majumdar, MD  
Norma Ojeda, MD  
Kim Paduda, MD  
Ruth Patterson, MD  
Twila Rawson, MD  
Linda Ray, MD  
Melissa Rhodes, MD  
Ray Rodriguez, MD  
Dorothy Scattone, MD  
Jennifer Shores, MD  
Monica Sutton, MD  
Neelish Tipnis, MD  
Sajani Tipnis, MD  
Thomas A. Walker, MD  
Sara Weisenberger, MD  
Kim Adcock, PharmD  
Craig Hallstrom, MD  
Jennifer Shores, MD  
Monica Sutton, MD  
Neelish Tipnis, MD  
Sajani Tipnis, MD  
Thomas A. Walker, MD  
Sara Weisenberger, MD  
Kim Adcock, PharmD  
Craig Hallstrom, MD  
Jennifer Shores, MD  
Monica Sutton, MD  
Neelish Tipnis, MD  
Sajani Tipnis, MD  
Thomas A. Walker, MD  
Sara Weisenberger, MD  
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Monica Sutton, MD  
Neelish Tipnis, MD  
Sajani Tipnis, MD  
Thomas A. Walker, MD  
Sara Weisenberger, MD

### Assistant Professors:

Sabahat Afshan, MD  
Avichal Aggarwal, MD  
Mufeed Ashraf, MD  
Sarosh Bativala, MD  
Kathleen Berg, MD  
Steven Bondi, JD, MD  
Puja Craddock, MD  
Michael Dallman, MD  
Nina Dave, MD  
Lamar Davis, MD  
Holly Dawson, MD  
Eric Deck, MD  
Lisa Didion, MD  
Kara Driver, MD  
Ahmad Charaf Eddine, MD  
Robert Eubanks, MD  
Rana El Feghaly, MD  
Cynthia O. Field, MD  
Craig Flowers, MD  
Michael Foster, MD  
Nan Frascogna, MD  
Carrie Freeman, MD  
Abigail Gamble, PhD  
Salwa Gendi, MD  
David Gilliam, MD  
Mufeed Ashraf, MD  
Claire Nettles Gilliam, MD  
Marcus Lee, MD  
Jessica Lilley, MD  
Hua Liu, PhD  
Elizabeth May, MD  
Sharon McDonald, MD  
Billy Edwin Mink Jr., MD  
Carr Morgan, MD  
Charles Paine, MD  
Khayki Pandya, MD  
Dr. Yi Pang, PhD  
Aimee Parnell, MD  
Nina Sarver, PhD  
James Purvis, MD  
Kathryn Schneider, MD  
Kiya Shakti, MD  
Julia Sherwood, MD  
Kimberly stringer, MD  
Spencer Sullivan, MD  
Kathryn Thomas, MD  
Nina Washington, MD  
Gretchen Zima, MD  
Catherine Carlyle Zimmerman, MD  
Barbara Saunders, DO  
Dustin Sarver, PhD  
Nina Sarver, PhD  
Robert P. Ashkin, MD  
Maxine A. Brindley, MD  
Robin J. Dabney, MD  
Elizabeth Edington, MD  
Deborah F. Fantle, MD  
William J. Fox, MD  
Jennifer Carney, MD  
Maureen E. Forman, MD  
Susan A. Graham, MD  
Sandra L. Holcomb, MD  
Laurie A. Johnson, MD  
Kathleen A. Metz, MD  
Kristine Moore, MD  
Wendi N. Mueller, MD  
Mary A. Peake, MD  
Kimberly R. Proctor, MD  
Susan A. Saffert, MD  
Lisa Schell, NNP  
Tanya Willis, NNP  
Holly Zimmerman, MS  
Teresa Hill, NP  
Beth Mullins, NNP  
Penni Lowery, RNC, BSN  
Becky Russell, CNNP  
Nick Rutledge, LCSW  
Amanda Penny, MD  
Catherine P. Phillipi, MD  
Audrey Robertson, MD  
Michael Rogers, MD  
Kristie Rohman, MD  
Dennis W. Rowlen, MD  
Manisha Sethi, MD  
Amanda Witt, MD  
Gretchen Zima, MD  
Catherine Carlyle Zimmerman, MD  
Laura Barron, MD  
Sarah Hasler Jones, MD  
JASON B Hicks, MD  
SAMUEL P HOPPER, MD  
SHAMAKI HUDSON, MD  
LYNDA JACKSON-ASSAD, MD  
REBECCA JAMES, MD  
LESLIE L JONES, MD  
BRIAN KIRME, MD  
BETTIE KNIGHT, MD  
LOUISA A LAWSON, MBCHB  
ANN M. LEE, MD  
GORDON H MEADOR JR, MD  
TIM MITCHELL, MD  
LAURA B. MULLINS, MD  
JENNIFER K. MYERS, MD  
WILLIAM D. PAYNE, MD  
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LOUISA A LAWSON, MBCHB  
ANN M. LEE, MD  
GORDON H MEADOR JR, MD  
TIM MITCHELL, MD  
LAURA B. MULLINS, MD  
JENNIFER K. MYERS, MD  
WILLIAM D. PAYNE, MD
THIRD YEAR

PED 631. JUNIOR PEDIATRICS. Students work as clerks on inpatient services of the Children's Hospital and in ambulatory settings. Ward rounds, conferences and lectures are regularly scheduled. Emphasis is placed on developing the skill of each student in history-taking and the physical examination of infants and children, particularly those with disorders that are most commonly seen in this age group. This course is required of all third year students. Traditional Clinical Rotation (16 credit hours)

PED 632. CHILD DEVELOPMENT & BEHAVIORAL PEDIATRICS. This elective is comprised of a two week block of outpatient child development and behavioral pediatrics. It will focus on the pediatrician's part in a multidisciplinary approach to the evaluation and treatment of children and teens with developmental and behavioral disorders including ADHD, learning disabilities, Tourette's Syndrome, autism spectrum disorders, behavioral disorders, and intellectual disabilities. (One (1) student each rotation. Available all rotations. Traditional Clinical Rotation (5 credit hours)

PED 633. PEDIATRIC GASTROENTEROLOGY. This course is an introduction to the evaluation and diagnosis of common pediatric gastrointestinal complaints in the outpatient setting. The primary goal will focus on history taking and physical exam as a means for formulation of a differential diagnosis given a chief complaint. Treatment plans will be formulated with the student to introduce them to nuances of developing patient-specific therapy. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

PED 634. MEDICAL GENETICS. This two week outpatient elective focuses on the diagnosis, management, and counseling of patients and families with a variety of genetic diseases as well as the important role medical genetics plays in the morbidity and mortality associated with birth defects and human disease. In the first week, students will observe Pediatric outpatient clinics and multidisciplinary clinics (22q11 and/or craniofacial) as well as inpatient consults. We then invite students to take on 2-4 cases in the second week. During that week, students work with a genetic counselor to review records and create a differential/management plan. Students will then interact directly with each patient and chart their history and plan. Outside of clinical work, students are invited to present a genetics-related topic of their choice to the division at the end of the rotation. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

PED 635. PEDIATRIC PALLATIVE MEDICINE. Students will, under supervision, become a member of the interdisciplinary team overseeing health care management of acutely, chronically and terminally ill children. The student, in the ambulatory and inpatient setting, will have an opportunity to learn a holistic approach to pain and symptom management and end-of-life care. Communication skills are emphasized in the difficult situations that arise in the specialty of palliative medicine. (One (1) student each rotation. Available all rotations) Traditional Clinical Rotation (5 credit hours)

PED 636. PEDIATRIC ALLERGY/IMMUNOLOGY. This course is an introduction to common allergic disorders, including allergy rhinitis, asthma, atopic dermatitis, food allergy, and evaluation for possible immune deficiency. Emphasis will be on developing an understanding of the diagnosis and management of the allergic disorders, physical exam skills, and lab testing for common immune defects in the outpatient setting. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

PED 637. PEDIATRIC NEUROLOGY. During this two week clinical rotation third year medical students rotate with UMMC child neurologists and have exposure to pediatric patients with epilepsy, headaches, static encephalopathy, tic disorders and neuromuscular disease. Although primarily a clinic rotation, there is potential for inpatient exposure. The process will include participation in history taking and physical exams (with a focus on neurological exam) as well as exposure to neurological procedures, including lumbar puncture, electroencephalography, video electroencephalography, and electromyography/nerve conduction studies. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

FOURTH YEAR

PED 651. PEDIATRIC AMBULATORY CARE. The student works as a clerk in the general and subspecialty clinics of the Pediatric Department. (Five (5) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

PED 652. Pediatric Externship. The extern functions as a first year house officer under the supervision of the resident and the attending staff. (Four (4) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

PED 653. NEONATAL MEDICINE. Study and management of disorders which occur in the first 28 days of life including the sequelae of extreme prematurity. Experience is directed particularly toward the management of acute problems in the immediate newborn period such as stabilization and resuscitation, acid base-balance, ventilator management and nutrition. Students will function as an acting intern with a limited number of patients. Students will have four night calls during their month. Night call will end at 10:00 pm. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

PED 654. CHILD DEVELOPMENT CLINIC. The student participates as an observer in the clinic team. He works up patients referred to this clinic, follows some patients through psychological testing, speech and hearing evaluation, biochemical screening, and final disposition and counseling. Designed for those interested in pediatrics, neurology, family practice and/or psychiatry. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PED 655. PEDIATRIC CARDIOLOGY. This course is an introduction to all aspects of congenital heart disease. Students function as externs (i.e. learner) and will work in pediatric cardiology clinic as well as the pediatric ICU, nursery, and pediatric catheterization laboratory. Students will be actively engaged by PCAR staff with the primary goal of learning basic concepts in CHD pathophysiology, interpreting common cardiac tests (e.g. ECGs), and developing thorough, age-appropriate differential diagnoses and basic treatment plans. (One (1) student each month. Available all months. Traditional - EL Clinical Rotation (12 credit hours)

PED 656. PEDIATRIC HEMATOLOGY-ONCOLOGY. Consists of training in normal and abnormal peripheral blood and bone marrow morphology and participation in the inpatient and outpatient care of pediatric patients with hematology-oncology problems. (One (1) student each month. Available all months. Traditional - EL Clinical Rotation (12 credit hours)

PED 657. PEDIATRIC ENDOCRINOLOGY. The student functions as an extern, seeing outpatients and inpatients, and gains knowledge in related function studies. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)
PED 658. PEDIATRIC NEUROLOGY. The student functions as an extern with training involving normal development and care of acute and chronic neurologic problems in both inpatient and outpatient clinics. The student is also required to research a topic related to the nervous system and give an oral presentation. (One (1) student each month. Available all months. Traditional - EL Clinical Rotation (10 credit hours)

PED 659. PEDIATRIC ALLERGY-IMMUNOLOGY. The student serves as an extern with training in the diagnosis and management of patients with allergic and congenital immunodeficiency disorders in the outpatient setting. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PED 660. PEDIATRIC GASTROENTEROLOGY. The student will serve as an extern evaluating patients with digestive disorders. The emphasis of this elective will be to develop a practical, logical approach to the diagnosis and management of children with gastrointestinal dysfunction. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PED 662. SPECIAL PEDIATRICS. Individualized programs for four weeks or longer can be arranged with the chairman of the department for students who are interested in obtaining experience in clinical blocks not offered at UMMC or who wish to engage in individualized Pediatric programs at UMMC or other medical schools. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PED 663. PEDIATRIC INFECTIOUS DISEASES. Primary objective is to provide an understanding of the fundamentals of infectious diseases and infection control. The student will function as a house officer, i.e. answering consultations and attending I.D. conferences and journal club. Additional experiences will include microbiology laboratory rounds and instruction in the pharmacokinetics of antibiotics. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

PED 664. PEDIATRIC NEPHROLOGY. The student functions as an extern and participates in the evaluation and care of children with kidney disease. Special emphasis is placed on the interpretation of diagnostic tests, natural history, and treatment of acute and chronic disorders of the kidney. Students are also exposed to children with end stage renal disease undergoing dialysis or transplantation. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PED 665. PEDIATRIC EMERGENCY ROOM. The student functions as an extern seeing patients in the emergency department. Experience is directed at the management of acute pediatric illnesses and injuries. Students will perform an equal number of shifts as a pediatric intern (13-15/month). (Two (2) students each month except the months of July, December and May, which take one (1) student.) Traditional - EL Clinical Rotation (12 credit hours)

PED 667. PEDIATRIC RHEUMATOLOGY. The student functions as an extern evaluating patients with rheumatologic disorders. Special emphasis is placed on evaluation of history, physical findings and specific lab tests in order to develop a practical, logical approach to management of autoimmune disorders. (One (1) student each month. Available all months. Traditional - EL Clinical Rotation (10 credit hours)

PED 668. PEDIATRIC INTENSIVE CARE. The student functions as an extern and participates in the daily care of patients in the Pediatric Intensive Care Unit. The student will develop an approach to complex patients with multi system problems. Special emphasis is placed on respiratory, hemodynamic, and fluid management. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

PED 669. PEDIATRIC PHYSICAL MED & REHABILITATION. The student functions as an extern seeing inpatients and outpatients in the Children’s Rehab Center. Experience is directed toward children with physically handicapping conditions and the rehabilitation of acute and chronic disabling diseases. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PED 672. PEDIATRIC HOSPITALIST. This course will allow 4th year students to work with pediatric hospitalists. The hospitalist's service co-manages patients with the different pediatric surgical specialties as well as seeing general pediatric inpatients. The student will function as an extern in seeing patients with the pediatric resident and attending. (One (1) student each month. Available all months except December, which takes no students.) Traditional Clinical Rotation (12 credit hours)

PED 673. PEDIATRIC PULMONOLOGY. This elective will allow 4th year students to function as an extern and obtain training in the management of pediatric patients with pulmonary disorders, both in the inpatient and outpatient settings. Special emphasis is placed on the interpretation of diagnostic testing modalities, natural history and treatment of common pulmonary conditions. Student may also function as part of the bronchoscopic team. (One (1) student each month. Available all months.) Traditional Clinical Rotation (12 credit hours)

PED 851. PEDIATRICS EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PED 852. PEDIATRICS EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PHARMACOLOGY AND TOXICOLOGY

Richard J. Roman, PhD, Professor and Chair

FACULTY

Professors Emeriti:
- Rodney C. Baker, PhD
- Jerry Michael Farley, PhD
- Susan Elizabeth Wellman, PhD

Professors:
- Roy J. Duhe, PhD
- Robert E. Kramer, PhD
- Robin William Rockhold, PhD
- Elise Gomez-Sánchez, DVM, PhD
- Yin-Yuan Mo, PhD
- Jia Long Zhuo, MD, PhD
SECOND YEAR

**PHARM 620. INTRO TO PHARMACOLOGY & THERAPEUTICS.** Students are introduced to the principles underlying the use of pharmacological agents in medical practice. Concepts related to drug distribution, drug-receptor interaction and drug metabolism are considered. In addition, the mechanism of action, therapeutic effects, adverse side-effects and common clinical applications of various drugs and drug classes are presented through a combination of lectures and clinical correlations. This course is given during the winter and spring semesters. Traditional Lecture (12 credit hours)

FOURTH YEAR

**PHARM 652. PHARMACOLOGY.** This is an independent study course in which students are expected to identify a topic in pharmacology and therapeutics, retrieve pertinent basic and clinical data from the scientific literature, and prepare a written report in which those data are discussed in relation to the presentation of a disease, future directions for disease management and overcoming the limitations of existing (accepted) pharmacotherapy. The topic of the report should be a novel aspect of pharmacotherapy including, but not limited to, a discrepancy they have encountered in the clinical use of a drug/drug class, a novel therapy (ies) for a disease for which current drugs might not fully prevent disease progression or an emerging field of pharmacotherapy. Pharmacology 620 is a prerequisite. Inquiries concerning the course can be made with the department chair, director of the second year medical pharmacology course or any other pharmacology faculty. Arrangements for taking the course must be made in advance of registration. (Available August-October, January-March). Traditional - EL Lecture (10 credit hours)

PHYSIOLOGY AND BIOPHYSICS

*John E. Hall, PhD, Arthur C. Guyton Professor and Chair*

**FACULTY:**

**Professors Emeriti:**
- Thomas G. Coleman, PhD
- Terry M. Dwyer, MD, PhD

**Professors:**
- Thomas H. Adair, PhD
- Barbara T. Alexander, PhD
- Alejandro Chade, MD
- Lique M. Coolen, PhD
- David J. Dzielak, PhD
- Joey P. Granger, PhD
- Robert L. Hester, PhD
- Luis A. Juncos, MD
- Merry L. Lindsey, PhD
- Jane F. Reckelhoff, PhD

**Associate Professors:**
- Heather A. Drummond, PhD
- Michael W. Grisswohl, PhD
- Ji Li, PhD
- James C. Lynch, PhD
- Andrew D. Smith, MD, PhD
- David E. Stec, PhD

**Assistant Professors:**
- Licy Yanes Cardozo, MD
- Jussara M. do Carmo, MD
- Eric M. George, PhD
- Michael E. Hall, MD
- Romain N. Harmanec, PhD
- Drew A. Hildebrandt, PhD
- Min Huang, PhD
- Suttira Intapad, PhD
- B. Babbette LaMarca, PhD
- Yonggang Ma, PhD
- Ana C. Palei, PhD
- William A. Pruett, PhD
- Frank T. Spradley, PhD
- Radu Iliescu, MD, PhD
- Lusha Xiang, MD

**Instructors:**
- Kristine Y. DeLeon-Pennell, PhD
- TaoLin Fang, MD, PhD
- R. Padmanabhan Iyer, PhD

**Affiliate Faculty:**
- Hanna Broome, PhD
- Bettye Sue Hennington, PhD
- Radu Iliescu, MD, PhD
- Lusha Xiang, MD

FIRST YEAR

**PHYSIO 611. MEDICAL PHYSIOLOGY.** Study of the functions of the body with special emphasis on the relationships of the different organs to each other. This course is given in the winter and spring semesters of the first year. Traditional Lecture (12 credit hours)
FOURTH YEAR

PHYSIO 651. PHYSIOLOGY SENIOR ELECTIVE. A course of study synthesized from available resources of the department along the lines of interest indicated by the student. The elective consists of a thorough review of pertinent literature, participation in ongoing projects, attendance at seminars, and a final examination and/or prepared thesis and required. (Five (5) students each month. Available all months.) Traditional (10 credit hours)

PREVENTIVE MEDICINE
Joshua R Mann, MD, MPH, Professor and Chair

FACULTY:

Professors:
- Michael E Griswold, PhD
- Joshua R Mann, MD, MPH
- Alan Penman, MBChB, PhD, MPH

Associate Professors:
- Hao Mei, PhD
- Xu Zhang, PhD

Assistant Professors:
- Caroline Compretta, PhD
- Jeannette Simino, PhD
- Nancy West, PhD

Affiliate Faculty:
- Mary Currier, MD, MPH

PSYCHIATRY AND HUMAN BEHAVIOR
Scott Rodgers, MD, Professor and Chair

FACULTY:

Professor Emeritus:
- Edgar Draper, MD

Professors:
- Scott Franklin Coffey, PhD
- Dirk Dhossche, MD, PhD
- Thomas David Elkin, PhD
- Kim Gratz, PhD
- Scott Franklin Coffey, PhD
- John Norton, MD
- James Rowlett, MD
- Howard Roffwarg, MD
- James Rowlett, MD
- Craig Stockmeier, PhD
- Craig Stockmeier, PhD

Associate Professors:
- Jeffrey Ali, MD
- Leilani Greening, PhD
- Faiza Qureshi, MD
- Allen Richert, MD
- Donna Rowlett, PhD
- James Shaffery, PhD
- Eric Vallender, PhD
- Roy Reeves, DO
- Roy Reeves, DO

Assistant Professors:
- Courtney Bagge, PhD
- John Beddingfield, MD
- James C. Brister, MD
- Nancy Bryant, MD
- Randy Burke, PhD
- Susan Buttross, MD
- Kevin Connolly, PhD
- Kevin Freeman, PhD
- Gregory Gordon, MD
- Maxie Gordon, MD
- Lillian Joy Houston, MD
- Jon Corey Jackson, MD
- Mark Ladner, MD
- Mark Ladner, MD
- Javier Jose Miguel-Hidalgo, PhD
- John Montgomery, DO
- Julio Perez, MD
- Daniel Williams, PhD

Instructors:
- Susan Anand, ATR
- Lindsay Avent, MS
- Kevin Freeman, PhD
- Gloria Elaine Hardin, MSW
- Sally Huskinson, PhD
- Kerry L. Kokaisel, MN, FPMHNP, PhD
- Dorota Maciag, PhD
- Zhiqiang Meng, PhD
- Mohaddetheh Moulan, PhD
- Daniela Ruedi-Bettenschen, PhD

Affiliate Faculty:
- Namita Khanna Arora, MD
- Kelly Buckholdt, PhD
- Molley Clark, PhD
- Brian Crabtree, PharmD
- Srivalli Ganne, MD, MPH
- Deborah Gross, MD
- Donald Guild, MD
- James Irby Jr., MD
- Sudhakar Madakasira, MD
- Naiha Mamoon, PhD
- John Montgomery, DO
- Elizabeth Nosen, PhD
- Gerald C. O'Brien, PhD
- Michael Rack, MD
- Benjamin Allen Root Jr., MD
- Philip Louis Scurria, MD
- Margaret E. Tidd, MD
- Cynthia Undesser, MD
- Lydia E. Weiss, MD
- John E. Wilkaitis, MD
- John Noel Young, PhD
SECOND YEAR
PSYCH 621. INTRODUCTION TO CLINICAL PSYCHIATRY. This course introduces students to the disorder based diagnostic system underlying the Diagnostic and Statistical Manual of Mental Disorders-V (DSM-V). The course also reviews selected DSM-V diagnostic categories. Traditional Lecture (2 credit hours)

THIRD YEAR
PSYCH 631. JUNIOR CLERKSHIP IN PSYCHIATRY. The junior clerkship in psychiatry is a 4-week rotation during which students spend 2 weeks on two services, which includes an inpatient service, consult service, and outpatient service. Assignments are divided between University Hospital, the Veteran’s Administration Medical Center and the Jackson Medical Mall. The clerkship offers the opportunity to gain experience in caring for patients with psychiatric illnesses in a multi-disciplinary treatment-team approach guided by biopsychosocial principles. Attendings and residents or the department closely supervise students. Faculty provide four hours per week of lectures that focus on evaluation and management of psychiatric disorders. Students are also introduced to psychiatric procedures with the opportunity to observe and participate in ECT. Traditional Clinical Rotation (12 credit hours)

FOURTH YEAR
PSYCH 653. GENERAL PSYCHIATRY. Students may propose their own plan of study which must be approved by the Department prior to the start of the block. Opportunities are available for students to design, with guidance, a clinical elective that meets their specific needs, e.g., combining inpatient and outpatient work, or participating in ongoing clinically relevant basic research projects within the department. Such projects can be supervised by faculty members in any of the disciplines (psychiatry, psychology and research) represented within the department. (Three (3) students each month. Available all months.) Traditional Clinical Rotation (10 credit hours)

PSYCH 658. SLEEP DISORDERS. The senior student spends four weeks assigned to the Sleep Disorders Center at UMMC. The rotation exposes the student to the evaluation, differential diagnosis, and treatment of sleep disorders. Under close faculty supervision the student participates in initial patient evaluations, follow-up appointments, and reviewing polysomnograms. (One (1) student each month. Available all months except December and January.) Traditional - EL Clinical Rotation (10 credit hours)

PSYCH 659. BEHAVIORAL HEALTH SPECIALTY CLINICS. The senior student spends four weeks assigned to the UMMC Behavior Health Specialty Clinics, where he/she receives training and experience in the treatment of patients with a wide range of acute and chronic psychiatric disorders. The student attends daily clinics, as well as scheduled teaching sessions. He/she gains experience in all modalities used in outpatient psychiatric care and performs initial evaluations on a select number of patients, and patients presenting for weekly follow-up visits. The student may also choose to participate in other clinic activities, e.g., groups. The student also learns about the coordination of ancillary services, including vocational rehabilitation, social services and becomes more familiar with other agencies offering service to psychiatric patients. The student assumes a higher level of responsibility and accountability within the limits set forth by the School of Medicine. The student is expected to be closely involved in the total care of each patient including medication and therapy management. Close supervision by attending faculty is provided throughout the block. Two (2) students per month. Available all months. Traditional Clinical Rotation (10 credit hours)

PSYCH 851. PSYCHIATRY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

PSYCH 852. PSYCHIATRY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

RADIATION ONCOLOGY
Srinivasan Vijayakumar, MD, DMRT, DABR, FACR, Professor and Chair, Director, UMMC Cancer Institute

FACULTY:
Professor:
Shankar P. Giri, MD

Associate Professor:
Claus Chunli Yang, PhD

Assistant Professor:
Robert M. Allbright, MD
William Neil Duggar, MS
Rui He, MS

Instructors
William C. "Trey" Woods, MSN, CFNP

Affiliate Faculty:
Roy J. Duhe’, PhD

Christian Gomez, PhD
FOURTH YEAR

RADONC 651. SENIOR RADIATION ONCOLOGY. This course is designed to introduce the student to basic concepts of radiotherapy, not only for those considering radiation oncology as a career, but also for those who are going to pursue medical or surgical oncology as their residencies. Students will participate in evaluation of patients with a wide variety of physical findings, under direct supervision of several faculty radiation oncologists. Ambulatory patients in treatment or follow-up clinics will be seen in addition to new consultations. Students will follow at least one new patient each week through simulation, administration of informed consent, patient teaching, treatment planning and implementation. Attendance at pediatric and adult tumor conferences will emphasize the importance of a multidisciplinary approach to cancer management. A reading list will be provided. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

RADONC 851. RADIATION ONCOLOGY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

RADONC 852. RADIATION ONCOLOGY EXTRAMURAL. Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

RADIOLOGY

Timothy C. McCowan, MD, Professor and Chair

FACULTY

Professors Emeriti:
Philip E. Cranston, MD

Professors:
Bernard I. Blumenthal, MD
Michael C. Doherty, MD
R. Brent Harrison, MD
Ramesh B. Patel, MD
Vani Vijayakumar, MD

Associate Professors:
Cyrillo R. Araujo, MD
Edward D. Green, MD
Majid A. Khan, MD
Bruce N. Schlakman, MD
Andrew D. Smith, MD, PhD
Anson L. Thaggard, MD

Assistant Professors:
Mohammad A. Ali, MD
David Joyner, MD
Timothy Ragland, MD
Garth Campbell, MD
Gustavo Luzzardo, MD
Chris D. Reed, DO
Bhavika R. Dave, MD
Christina Marks, MD
Tanvir Rizvi, MD
Vadivel Devaraju, PhD
Kristen Miller, MD
Manohar S. Roda, MD
E. Patrick Farley, MD
Robert Morris, MD
Eduardo Scortegagna, MD
Ali Fatemi, PhD
Todd A. Nichols, MD
Frederico F. Souza, MD
John M. Faust, MD
Lena Omar, MD
Michael A. Steiner, MD
Angela D. Graeber, MD
Ellen Parker, MD
Judd Storrs, PhD
William “Kirk” Haney, MD
Akash M. Patel, MD
Harpreet Talwar, MD
Kathleen H. Hardin, MD
Stella Powell, MD
Katherine Ragland, MD

THIRD YEAR

RADIO 631. INTRO TO DIAGN. & INTERVEN. RADIOLOGY. This course is for all students, including those targeting radiology as a career as well as those who plan to enter other medical specialties. The two-week-long course is designed to introduce students to all major imaging modalities and equip students with practical knowledge regarding anatomy, advantages and disadvantages of each imaging modality, safety issues related to medical imaging, and a basic approach to image interpretation. (Six (6) students each rotation. Available all rotations except December.) Traditional Clinical Rotation ($5 credit hours)

FOURTH YEAR

RADIO 651. SENIOR RADIOLOGY. This elective is for ALL students, including students pursuing a career in radiology as well as students seeking to become more sophisticated, better-informed users of imaging services. Completion of the third-year course, RADIO 631, is NOT a pre-requisite. All students will sharpen their skills in selecting appropriate imaging studies and in recognizing and communicating the most important findings on those studies. One of the goals of this expanded elective is to prepare students for their remaining senior clerkships and for on-call duties during internship. Toward this end, critical imaging findings and typical emergency imaging work-ups are reviewed and emphasized. In addition to improving proficiency in the interpretation of chest radiographs, the student will also learn a basic approach to the interpretation of cross-sectional imaging studies, with an emphasis on CT. The student spends four weeks rotating through the various subspecialties of radiology: Body CT (where CTs of the chest, abdomen and pelvis are read), Breast Imaging (Mammography), Cardiovascular Imaging, Chest Radiography, Neuroradiology, Nuclear Medicine, Pediatric Radiology, Ultrasonography, and Vascular &
Interventional Radiology. Traditional - EL Clinical Rotation (10 credit hours) (Available all months except May and December. Limit of eight students per month).

**RADIO 656. SPECIAL RADIOLOGY ELECTIVE.** A self-designated rotation on radiology clinical areas in which the student will rotate through one or two subspecialty areas of interest. Attendance is required, and must be appropriately recorded to pass this block. The student will also present an interesting case observed during their rotation (15-20 minutes in length) at a departmental conference (as scheduled, or to the course director or his designate). Additional requirements may vary based on chosen subspecialty area. Completion of RADIO 651 is a pre-requisite. At the discretion of the course director, this pre-requisite may be waived, in certain circumstances. (Four (4) students per month. Available all months except May and December.) Traditional - EL Clinical Rotation (10 credit hours)

**RADIO 851. RADIOLOGY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair’s approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

### SURGERY

Christopher D. Anderson, MD, Chair and Associate Professor

**FACULTY**

**Professors Emeriti:**
- James Bigbee Grogan, PhD
- John B. McCraw, MD
- Norman C. Nelson, MD

**Professors:**
- Christopher D. Anderson, MD
- Giorgio M. Aru, MD
- Steven A. Bigler, MD
- Christopher J. Blewett, MD
- Ricky P. Clay, MD
- Ralph Didlake, MD
- Ali Dodge-Khatami, MD
- David J. Dzielak, PhD

**Associate Professors Emeriti:**
- Wendell Douglas Godfrey, MD

**Associate Professors:**
- Peter B. Arnold, MD, PhD
- Barry Berch, MD
- A. Bradley Boland, MD
- Lawrence L. Creswell, MD

**Assistant Professors:**
- Shuntaye Batson, MD
- Christopher Bean, MD
- Jonathan D. Carroll, MD
- Clinton W. Collins, MD
- Carolyn Cushing, MD

**Instructors:**
- Darlenia Andrews, RN, MSN
- R. Keith Brown, RN, MSN, PhD

**Affiliate Faculty:**
- Vito John Bagnato, MD
- Kenneth Rudolph Barraza, MD
- Jason Blalock, MD
- Frank Louis Ruffer Briggs, MD
- Robert Charles Buckley, MD
- Janis E. Burns-Tutor, MD
- Mark H. Craig, MD
- Edward F. Crocker Jr., MD
- Stephen Frederick Davidson, MD
- Jesse Theo Davis Jr., MD
- Heber Clark Ethridge, MD
- Henry Patellford Ewing, MD
- Thomas Carroll Fenter, MD
- Richard Jennings Field Jr., MD
- Darlenia Andrews, RN, MSN
- Cheryl McCoy, RN, MSN
- Christopher Powe, RN, MSN, PhD

**Professors:**
- Edwin Harmon, MD
- Thomas S. Helling, MD
- James Edward Keeton, MD
- Larry Martin, MD
- Marc E. Mitchell, MD
- Martin H. McMullan, MD
- Charles O’Mara, MD
- Anthony Panos, MD
- Edwin Harmon, MD
- Thomas S. Helling, MD
- James Edward Keeton, MD
- Larry Martin, MD
- Marc E. Mitchell, MD
- Martin H. McMullan, MD
- Charles O’Mara, MD
- Anthony Panos, MD

**Associate Professors:**
- Lonnie W. Frei, MD
- Drew A. Hildebrandt, PhD
- Gerald McKinney, MD
- Shawn McKinney, MD

**Assistant Professors:**
- Pierre E. de Delva, MD
- Truman M. Earl, MD
- Michael Friel, MD
- Bhawna Gupta, PhD
- Chadwick P. Huckabay, MD

**Instructors:**
- Cheryl McCoy, RN, MSN
- Ashley H. Seawright, RN, MSN

**Professors Emeriti:**
- Seshadri Raju, MD
- William Lamar Weems, MD
- Gregory Timberlake, MD

**Professors:**
- Charles Pound, MD
- Thomas Prewitt, MD
- Fred W. Rushton Jr., MD
- Jorge D. Salazar, MD
- Patrick Smith, MD
- Marcus Walkinshaw, MD
- Michael Winniford, MD
- James Wynn, MD

**Associate Professors:**
- Thomas Kennon Williams Jr., MD
- David Sawaya, MD
- Jay Shake, MD
- Kenneth Vick, MD

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**Assistant Professors:**
- Pierre E. de Delva, MD
- Theresa Robertson, MD
- Sumova V. Smith, MD
- Gregory Stanley, MD
- Laura R. Vick, MD

**Instructors:**
- Thomas Kennon Williams Jr., MD
- David Sawaya, MD
- Jay Shake, MD
- Kenneth Vick, MD

**Affiliate Faculty:**
- Robert Preston Myers, MD
- Anthony Bedear Petro, MD
- Charles Gregory Pigott, MD
- Terry Wesley Pinson, MD
- Lucas Oliver Platt, MD
- Land Renfroe, MD
- Joe Robinson Ross Jr., MD
- Danny L. Sanders, MD
- Robert Allen Smith, MD
- Somprasong Songcharoen, MD
- James Patrick Spell, MD
and chest wall abnormalities. Ward rounds, patient management, cardiac conferences, chest conferences, clinic follow-up and surgical

The student will also be exposed to a broad spectrum of thoracic surgical problems related to pulmonary, esophageal, transplant, as well as participate in the care of hepatobiliary patients. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 632. UNIVERSITY HOSPITAL GENERAL SURGERY. Students will participate in the diagnosis and treatment of patients with common general surgery problems. Students may be assigned to one of four General Surgery services (Surgery A, Surgery B, Acute Care Surgery, Transplant Surgery, or Veterans Administration), at the discretion of the Course Director, depending upon total number of students enrolled. (Four (4) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 633. VETERANS ADMINISTRATION GENERAL SURGERY. Students will participate in the diagnosis and treatment of a broad spectrum of general surgery problems. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 634. CARDIOTHORACIC SURGERY. This elective is designed for students with interests in adult or pediatric cardiothoracic disease. Students will be introduced to the basics of transplant surgery, including kidney, pancreas, and liver transplantation, as well as participate in the care of hepatobiliary patients. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 635. PEDIATRIC SURGERY. The student will participate in the surgical management of pediatric patients with a variety of surgical problems. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 636. PLASTIC AND RECONSTRUCTIVE SURGERY. Students will be introduced to the basics of plastic surgery including skin and tissue graphs, vascularized flaps and free flaps, craniofacial procedures and microsurgery. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 637. SURGERY CRITICAL CARE. The student will be an integral part of the team participating in the daily care of trauma and general surgery patients in the surgery intensive care unit. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 638. SURGICAL RESEARCH. This elective is designed for students who have had previous and ongoing research experience with a Department of Surgery faculty member to allow dedicated time to continue their research endeavors. A letter of ongoing research is required from the Department of Surgery faculty member prior to approval into this two week elective. (Variable number of students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 639. TRANSPLANT SURGERY. Students will be introduced to the basics of transplant surgery, including kidney, pancreas, and liver transplantation, as well as participate in the care of hepatobiliary patients. (One (1) student each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 640. TRAUMA SURGERY. Students will focus on the initial evaluation and management of the trauma patient by becoming a member of the trauma team and responding to trauma activations. Students will have the choice of participating in daytime trauma service, or our "on-call"night float working 5 nights per week for two weeks. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 641. UROLOGY SURGERY. Emphasis is placed on common urologic problems with initial evaluations in the clinic or hospital setting during this elective. Students will participate in preoperative patient care, assist with urologic tests, procedures and surgeries in clinic and in the operating room. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 642. VASCULAR SURGERY. Students will focus on medical and surgical management of peripheral and central vascular disease in the inpatient and outpatient setting, as well as the operating room. (Two (2) students each rotation. Available all rotations.) Traditional Clinical Rotation (5 credit hours)

SURG 652. GENERAL SURGERY. This course allows the medical student to spend one month on an adult general surgery service functioning as a sub-intern. The student will be assigned significant patient care responsibilities with faculty and senior house staff supervision. Students will be allowed to choose between four general surgery services (Surgery A, Surgery B, Acute Care Surgery, and Veterans Administration), and will be given priority to a service on a first come, first serve basis. (Four (4) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

SURG 653. CARDIOTHORACIC SURGERY. Particularly stressed is major heart surgery, and the pre and postoperative care of these patients. Angiography, cardiac catheterization and other diagnostic testing are emphasized. Congenital heart diseases and their therapy is part of the course as well. The student will also be exposed to a broad spectrum of thoracic surgical problems related to pulmonary, esophageal and chest wall abnormalities. Ward rounds, patient management, cardiac conferences, chest conferences, clinic follow-up and surgical
assistance comprise the spectrum of duties. Ambulatory CT surgery would consist of all clinics, consults and operations performed during the daytime. Research opportunities available. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 654. SURGICAL CRITICAL CARE.** The student will be an integral part of the team participating in the daily management of patients in either the Surgical Intensive Care Unit or the Cardiovascular Intensive Care Unit (based upon their residency area of interest). Emphasis will be placed on cardiopulmonary physiology, ventilator management, nutrition, and critical care management. Ethical and medical legal issues pertaining to critical care medicine will be discussed. Participation will be under the guidance of the ICU faculty. (Three (3) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 655. PEDIATRIC SURGERY.** The student will assume, with close senior resident and faculty supervision, a significant role in the total management of pediatric surgical patients. The student will have the opportunity to integrate fetal physiology and embryology knowledge into clinical care. The student will elect either an ambulatory or inpatient focus and the didactic and clinical expectations will be specific to the focus chosen. Most Pediatric surgery has become ambulatory in nature in terms of operations and clinic as well as daytime consultations. Departmental core conference attendance is required for all students. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 656. VASCULAR SURGERY.** The students will have the opportunity to participate in the management and work up of patients with vascular disease. The settings will include the VAMC and University Hospital clinics and OR’s. The students will understand the physiology and anatomy of the circulatory system in health and disease and will learn to take an appropriate history and physical exam. Ambulatory focus will revolve around endovascular interventions, clinics and outpatient or daytime surgery. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 657. TRAUMA SURGERY.** Students will participate in the care of injured patients in the ER and the OR and understand the principles of ATLS teaching. In addition, the students will have the opportunity to follow patients in an outpatient setting to understand the outcomes of trauma. The ambulatory focus will be limited to the clinics at the medical mall and daytime emergency room consults, especially those seen and subsequently either discharged or admitted to another service. Students will have the choice of participating in the daytime trauma service with night time call, or our “on-call” night float team working 5 nights per week for the month. (Two (2) students each month. Available all months) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 658. UROLOGY SURGERY.** Emphasis is placed upon clinical experience and responsibility. Students will participate in patient care in the hospital, operating rooms and clinics. Independent reading is encouraged and time is provided for formal teaching sessions. Research projects such as chart reviews and case reports are supported and encouraged. (Two (2) students each month. Available all months). Traditional - EL Clinical Rotation (12 credit hours)

**SURG 659. SURGICAL RESEARCH.** This elective is designed for students who have had previous and ongoing research experience with a Department of Surgery faculty member to allow dedicated time to continue their research endeavors. A letter of ongoing research is required from the Department of Surgery faculty member prior to approval into this four week elective. (Variable number of students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 660. PLASTIC AND RECONSTRUCTIVE SURGERY.** The objectives of this course include introduction to the elements of plastic surgery (grafts, flaps, craniofacial procedures and microsurgery) and their application to traumatic wounds, infection, cancer, reconstruction, and congenital abnormalities. Participation by the student in clinical services allows for understanding of the planning, perioperative and overall management of these patients. Ambulatory care is based in the clinics and outpatient surgery. The student is expected to participate in all conferences and educational opportunities to expose the student to academic and research concepts in plastic surgery. Student projects and presentations will be strongly encouraged. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 665. BREAST SURGERY.** This course is focused on surgical diseases of the breast. Students will assist with the initial evaluation of patients with breast pathology and learn the diagnostic skills required to treat breast disease, determine when surgery is indicated and assist with postoperative care. Students will also participate in the operating room, and ward rounds when patients are hospitalized. (Two (2) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 666. OUTPATIENT SURGERY CLINIC.** This course is designed to expose 4th year students to outpatient surgical patients across a variety of subspecialties. Students will evaluate surgical patient preoperatively determining the indications for surgical intervention and postoperatively to distinguish a normal versus a complicated postoperative course. Clinic schedule will be assigned by Course Director, taking into account student’s areas of interest when possible. (Three (3) students each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 668. TRANSPLANT SURGERY.** Students will participate in the care of kidney, pancreas, and liver transplant patients, as well as hepatic/biliary patients. Participation in at least one organ donor recover procedure is strongly encouraged. (One (1) student each month. Available all months.) Traditional - EL Clinical Rotation (12 credit hours)

**SURG 669. SURGERY RESIDENT PREP COURSE.** This is a one (1) month course that is designed to provide students with the practical information and skills needed to prepare for the intern year as a surgical resident. Students will participate in hands-on simulation, such as suturing, laparoscopic skills and other clinical skills; on call phone scenarios; and didactic lectures and workshops. This course is an M4
elective and only offered in the month of March. The maximum number of students is 12. Preference will be given to students who applied for general surgery or a surgical subspecialty. Traditional Lecture/Lab (10 credit hours)

**SURG 851. SURGERY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair's approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

**SURG 852. SURGERY EXTRAMURAL.** Extramural rotations for four weeks or longer can be arranged with the course director or chair's approval for students who are interested in the specialty. (Available for senior medical students only. Available all months.) Traditional - EL Clinical Rotation (10 credit hours)

### CONJOINT COURSES

The following courses are independent of any one department in the School of Medicine:

#### FIRST YEAR

**CONJ 611. MEDICAL NEUROSCIENCE.** This course provides an introduction to the anatomical, physiological, and behavioral basis of the human nervous system with an emphasis on clinical presentation. Students are expected to be able to identify symptoms of neurologically and psychiatrically compromised patients and be able to correlate the deficits with the neural system basis for these disorders. A variety of teaching modalities are used including problem based learning exercises, basic science lectures, clinical correlation lectures, team-based learning activities, gross brain wet laboratories, laboratory demonstrations, active learning small groups, and patient simulations. Traditional Lecture (10 credit hours)

**CONJ 612. INTRODUCTION TO THE MEDICAL PROFESSION.** This course is designed to develop skills that medical students must master to practice high-quality, cost-effective, and patient-centered medicine in the modern world in which knowledge is progressing exponentially and in which technology has permeated our society. Physicians in the 21st century must possess the ability to constantly seek, evaluate, analyze, and assimilate new knowledge; to communicate efficiently and effectively with patients; to collect and document historical and physical information from their patients; to work in collaborative teams with members of other healthcare disciplines; to improve the health and well-being of their communities; and to meet the societal expectations of behavior for medical professionals. To meet these needs, Introduction to the Medical Profession 1 combines aspects of biostatistics, evidence-based medicine, community and population health, and patient care skills taught in a progressive manner to facilitate the development of these critical skills. Traditional Lecture (12 credit hours)

#### SECOND YEAR

**CONJ 621. INTRODUCTION TO CLINICAL MEDICINE.** Second-year medical students are introduced to clinical experience by means of a series of lectures and demonstrations. Members of all departmental faculties participate in a course designed as an introduction to clinical medicine, bridging the gap between the basic sciences and their clinical application. Classroom instruction in history taking and physical examination is supplemented by weekly tutorial sessions conducted by members of the faculty in a ratio of one tutor to two students. Instruction is correlated with that in clinical laboratory diagnosis. Traditional Lecture (14 credit hours)

#### THIRD YEAR

**CONJ 631. CLINICAL SKILLS ASSESSMENT.** Medical students will be evaluated by Clinical Skills Assessment (CSA) during each third year clinical rotation and will have a summative exam at the end of the third year. The exam is conducted in an Objective Structured Clinical Exam (OSCE) format to teach and evaluate students' clinical skills including verbal communication, history and physical examination, diagnosis and management, and written communication. Professionalism is a major component of evaluation. Traditional Clinical Rotation (2 credit hours)

**CONJ 632. INDEPENDENT STUDY.** Independent Study (IS) in the SOM is a self-paced course which allows students in the 3rd year curriculum to complete academic requirements or projects for the year without distracting from the clerkship schedule. It allows students to remain in their assigned M3 group with the intent to rejoin the group at the completion of the course. Independent Study is scheduled for 2 weeks in the 3rd year curriculum. This time frame can be extended up to but not to exceed 10 weeks within the 3rd year. Approval for the extension must be given by the Associate Dean for Academic Affairs. Students who request an extension of the time in independent study will be required to submit a plan of study to demonstrate good time management. There will be no grade at completion of this course. Traditional - EL Independent Study (0 credit hours)

**CONJ 633. M3 MEDICAL STUDENT RESEARCH PROGRAM.** A two-week research block required by students who are in the Medical Student Research Program (MSRP). During this rotation, third year medical students will gain experience in designing a research project, conducting experiments, analyzing data, preparing a manuscript for submission, and preparing a poster for presentation. Students in the MSRP will work with their assigned mentor for the duration of the rotation. At the end of the M3 year, all third-year MSRP students are expected to present their research in a poster format at the MSRP Research Day or similar activity. Traditional - EL Laboratory (5 credit hours)

**CONJ 634. EVOLUTION IN HEALTH AND DISEASE 634.** This elective provides 3rd year medical students the opportunity to explore the relevance of concepts and principles from evolutionary biology and human evolution to medical practice and research, and to gain a deeper understanding of health and disease in populations. (Two (2) students each rotation. Available all rotations except June and July.) Traditional Independent Study (5 credit hours)
CONJ 636. PUBLIC HEALTH. This elective provides 3rd year medical students the opportunity to work with the Mississippi State Department of Health (MSDH) to learn the broader scope of public health as it relates to the individual and the community. Activities will include restaurant and wastewater inspections, TB outreach activities to the homeless, and disease intervention investigations. Additional activities such as disease outbreak investigations, disaster preparedness involvement and other public health experiences will be included as opportunities arise. There will also be opportunities for direct patient care in the MSDH clinics. (Two (2) students each rotation. Available all rotations except the second rotation in May.) Traditional Clinical Rotation (5 credit hours)

FOURTH YEAR

CONJ 652. SENIOR SEMINAR. This required course consists of a series of assignments through Canvas, including online group discussions. Students explore a number of important topics, including approach to clinical ethics, end of life issues, autonomy, the physician-patient relationships, cultural issues and selected social issues related to medical practice. (25 clock hours. Given online September through November and January through March.) Online, Internet, or Web-based Lecture (2 credit hours)

CONJ 653. BIOETHICS, PERSP CURR ISS MED & SOC. The fourth year elective course in bioethics is multifaceted and interactive. It is designed to acquaint students with various philosophical, ethical, and religious systems of thought and explore how they relate to complex ethical issues in the practice of medicine. This will help students develop critical thinking skills that can be used in the clinical setting and in future healthcare policy. This course seeks to develop an integrated or holistic approach to patient care that combines an understanding of the core principles of the belief, faith and spirituality of the patient with sound clinical judgment and ethical decision making in light of advancing medical technology. This is facilitated by providing students with tools and insights to further develop as compassionate healers with a deeper foundation and understanding of the complexities of ethical decision-making. Utilizing an interactive format of lecture, discussion, practical on site experience, and case analysis helps students to integrate this understanding into their own clinical practice. A diverse faculty provides instruction for the course including physicians, theologians, philosophers, chaplains, nurses, attorneys and bioethicists. (Fourteen (14) students each month. Available in February only.) Traditional - EL Clinical Rotation (10 credit hours)

CONJ 655. COMMUNITY SERVICE. This course is intended to promote awareness of the importance of volunteer community service by the physician and to organize and document an extraordinarily high degree of volunteer service by the student. Credit for the course requires a minimum number of documented hours of volunteer service in pre-approved activities and maintenance by the student of a personal journal recording these activities. All students must pre-enroll with approval by course directors and the Community Service Board. (Twenty-five (25) students each month. Available all months except May.) Traditional Independent Study (10 credit hours)

CONJ 658. ORAL-MAXILLOFACIAL SURGERY. This 4-6 week rotation will provide a unique educational experience for medical students as they rotate on the Oral and Maxillofacial Surgery Service. Students will be exposed to oral pathology and oral manifestations of systemic diseases. They will see the effects of oral health on the patient’s overall state of health. Students will spend time in both the outpatient clinic setting where ambulatory surgery is performed and the OR where they will assist in the care of patients. They will observe how the oral and maxillofacial surgeon manages complex facial trauma, temporomandibular joint disorders, cosmetic and functional facial deformities, and oral pathology. This elective is recommended for those interested in otolaryngology-head and neck surgery or plastic and reconstructive surgery. (One (1) student each month. Available all months except July.) Traditional Clinical Rotation (10 credit hours)

CONJ 658A. ORAL-MAXILLOFACIAL SURGERY. This 4-6 week rotation will provide a unique educational experience for medical students as they rotate on the Oral and Maxillofacial Surgery Service. Students will be exposed to oral pathology and oral manifestations of systemic diseases. They will see the effects of oral health on the patient’s overall state of health. Students will spend time in both the outpatient clinic setting where ambulatory surgery is performed and the OR where they will assist in the care of patients. They will observe how the oral and maxillofacial surgeon manages complex facial trauma, temporomandibular joint disorders, cosmetic and functional facial deformities, and oral pathology. This elective is recommended for those interested in otolaryngology-head and neck surgery or plastic and reconstructive surgery. (One (1) student each month. Available all months except July.) Traditional - EL Clinical Rotation (10 credit hours)

CONJ 659. M4 TO M2 TEACHING TRACK. This longitudinal elective provides senior medical students interested in academic medicine an opportunity to acquire a better understanding and appreciation of the art of clinical education. The student will gain proficiency in teaching history and physical examinations skills and giving feedback to assigned sophomore ICM students. Senior medical students taking this course will be better prepared for the teaching responsibilities of residency. A standardized curriculum will consist of didactic and online sessions, assigned reading and online video resources in performance of the physical exam. (This rotation can accommodate 50 students over the course of the year. Students will be able to enroll in any month, July through May, but will mentor their M2’s throughout the year. Teaching responsibilities will be greatest during November through April. A final grade will not be given until May.) Students interested in participating will be required to submit a nomination form signed by any member of the pre-clinical or clinical faculty stating your interest and commitment as a student in teaching. Nomination forms may be obtained from Chastity Carney (ccarney@umc.edu) in L436, Deborah Newell (dnewell@umc.edu) in the Clinical Assessment Center, or by emailing Dr. David Norris (dmorris@umc.edu). Forms should be submitted to Chastity, Deborah, or Dr. Norris. Traditional (10 credit hours)

CONJ 660. M4 MEDICAL STUDENT RESEARCH PROGRAM. A one-month research block required by students who are in the Medical Student Research Program (MSRP). During this rotation, fourth year medical students will gain experience in designing a research project, conducting experiments, analyzing data, preparing a manuscript for submission, and preparing a platform presentation. Students in the MSRP will work with their assigned mentor for the duration of the rotation. At the end of the M4 year, all fourth-year MSRP students are.
expected to present their research in a platform presentation at the MSRP Research Day or similar activity. Traditional - EL Laboratory (10 credit hours)

**CONJ 667. DEAN FELLOWSHIP IN HEALTHCARE ADMIN.** This non-clinical elective provides the student a structured, faculty- mentored experience to explore many facets of healthcare leadership including academic medicine, hospital administration and models of healthcare delivery. It draws upon the expertise of leaders for the various department within the University Hospitals’ administrative departments. Prior to acceptance, student must provide a copy of his/her CV to the course director, along with a cover letter explaining his/her interest in doing this elective and what he/she hopes to gain from the experience. (One (1) student each month. Available all months except November, December and May.)

**CONJ 668. CLINICAL CAPSTONE.** The goal of this M4 elective course is to provide a unique educational opportunity for individual students and to present topics that are crucial for a smooth transition to internship. It will be a multidisciplinary, integrated course that will use a combination of required podcasted lectures, small group sessions, medical simulations, and internet research. Given online. (This rotation can accommodate a flexible number of students. Available in February, March and April.)

**CONJ 669. INTRODUCTION TO CLINICAL ETHICS.** This course is designed to expose medical students to the ethical issues found in clinical medicine, as well as to endow them with critique and evaluation skills to recognize ethical dilemmas, work through the problems and attempt to find resolution. (Twenty (20) students per month. Available September and January.)
## 2016-2017 Academic Calendar

### April
- **11 Thursday**: Registration begins for 2016-2017 Summer term
- **17 Tuesday**: $50 Late Registration Fee For 2016-2017 Summer Term Effective Today
- **17 Monday**: 2016 Commencement

### May
- **17 Tuesday**: $100 Late Registration Fee for 2016-2017 Summer Term Effective Today
- **27 Friday**: Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund

### June
- **30 Monday**: Last day to withdraw from school or from a course without receiving a withdrawal grade and to receive a tuition refund

### July
- **4 Monday**: Independence Day Holiday observed
- **5 Tuesday**: Classes resume

### August
- **1 Wednesday**: General Orientation
- **1 Tuesday**: Labor Day Holiday observed
- **5 Friday**: Last day of summer term
- **5 Monday**: $50 Late Registration Fee for 2016-2017 Fall Semester Effective Today

### September
- **7 Monday**: Registration begins for 2016-2017 Spring Semester
- **14-21 Friday**: Course Evaluations
- **23 Wednesday**: Thanksgiving Holiday begins at 5:00 pm
- **28 Monday**: Classes resume

### October
- **7 Friday**: Deadline for completion of all requirements for December degree
- **21 Friday**: Research Day School of Graduate Studies in the Health Sciences

### November
- **7 Monday**: Registration begins for 2016-2017 Spring Semester
- **14-21 Tuesday**: Classes resume
- **23 Wednesday**: Thanksgiving Holiday begins at 5:00 pm
- **28 Monday**: Classes resume

### December
- **5-16 Friday**: Fall semester examinations
- **17 Saturday**: End of fall semester
- **20 Tuesday**: Last Day to submit grades
- **26 Monday**: $50 Late Registration Fee for 2016-2017 Spring Semester Effective Today

### SPRING SEMESTER

### January
- **9 Monday**: Classes Begin
- **9 Monday**: $100 Late Registration Fee for 2016-2017 Spring Semester Effective Today
- **13 Friday**: Last day to register for spring semester
- **16 Monday**: Martin Luther King’s Birthday Holiday observed
- **17 Tuesday**: Classes resume
- **20 Friday**: Last day to add a course
- **20 Friday**: ***Last day to submit an application for May degree***
- **30 Monday**: Last day to withdraw from a course or from school without receiving a withdrawal grade to receive a tuition refund

### February
- **8 Wednesday**: Student Financial Wellness Seminar

### March
- **13-17 Mon-Fri**: Spring Break begins at 5:00 pm
- **20 Monday**: Classes resume
<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>April</td>
<td>10</td>
<td>Monday  Registration begins for 2017-2018 Summer Term</td>
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<td>***14</td>
<td>Friday  <em><strong>Last day to submit an application for August 2017 degree</strong></em></td>
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<td></td>
<td>17-21</td>
<td>Course Evaluations</td>
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<td>27</td>
<td>Thursday Honors Day</td>
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<td>May</td>
<td>1-5</td>
<td>Final Examinations</td>
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<td>5</td>
<td>Friday  Last day of semester</td>
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<td></td>
<td>9</td>
<td>Tuesday Last day to submit grades</td>
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<td></td>
<td>16</td>
<td>Tuesday $50 Late Registration Fee for 2017-2018 Summer Term Effective Today</td>
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<tr>
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<td>26</td>
<td>Friday  Commencement</td>
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SCHOOL OF GRADUATE STUDIES IN THE HEALTH SCIENCES

Joey P. Granger, PhD, Dean
Michael J. Ryan, PhD, Associate Dean of Student Affairs
Lique Coolen, PhD, Associate Dean of Postdoctoral Studies
Sydney Murphy, PhD, Assistant Dean of Academic Affairs

HISTORY
The School of Graduate Studies in the Health Sciences at the University of Mississippi Medical Center in Jackson was established in 2001 by the Board of Trustees of State Institutions of Higher Learning. The Graduate Programs in the Health Sciences previously operated under the auspices of the Graduate School of The University of Mississippi.

PROGRAMS
The School of Graduate Studies in the Health Sciences offers programs leading to Master of Science (MS) and Doctor of Philosophy (PhD) degrees. A listing of the graduate degree programs offered at the Medical Center follows.

Master of Science Degree Programs
- Master of Science in Biomedical Materials Science
- Master of Science in Biomedical Sciences
- Master of Science in Clinical Anatomy
- Master of Science in Clinical Health Sciences (Program no longer accepting new graduate students)
- Master of Science in Clinical Investigation
- Master of Science in Pathology

Doctor of Philosophy Degree Programs
- Doctor of Philosophy in Biochemistry
- Doctor of Philosophy in Biomedical Materials Science
- Doctor of Philosophy in Clinical Anatomy
- Doctor of Philosophy in Clinical Health Sciences (Program no longer accepting new graduate students)
- Doctor of Philosophy in Medical Pharmacology
- Doctor of Philosophy in Microbiology and Immunology
- Doctor of Philosophy in Neuroscience
- Doctor of Philosophy in Nursing
- Doctor of Philosophy in Physiology and Biophysics

Additional information about specific programs, application procedures, and the Graduate Student Handbook are available at our website:

http://www.umc.edu/graduateschool/

MISSION STATEMENT
The mission of the School of Graduate Studies in the Health Sciences is to (1) train highly qualified researchers who will make significant contributions to the scientific literature; (2) educate those who will train the next generation of biomedical scientists and health care professionals; (3) foster the spirit of scientific inquiry; and (4) promote an environment that embraces diversity and cultural differences.

ADMISSION TO THE SCHOOL OF GRADUATE STUDIES

GENERAL REQUIREMENTS - Selection of applicants is made on a competitive basis, without regard to race, creed, sex, color, religion, marital status, sexual orientation, age, national origin, disability or veteran status. A student with a baccalaureate degree from a regionally accredited institution may apply for study in areas in which competence has been demonstrated by scholastic performance.

Prospective students must submit an online application for admission to the Office of Student Records and Registrar an official transcript of undergraduate and graduate (if applicable) grades, and an official statement of scores (verbal, quantitative and analytical) received on the Graduate Record Examination (GRE), three letters of recommendation for PhD programs, and a personal statement. With the exception of those students applying for admission directly from a Master's Degree program, the GRE examination must be taken within five years of application. Information regarding the GRE may be obtained from the Educational Testing Service, Princeton, NJ 08540. International applicants must have transcripts evaluated in a course-by-course report from World Education Services (WES) at or Educational Credential Evaluators (ECE).

Prerequisites are required by certain programs, and these may be determined by contacting the specific program to which the applicant desires admission.

Initial evaluation of applicants for admission to graduate programs is made on the basis of undergraduate (and graduate, if applicable) scholastic performance, letters of recommendation and scores received on the GRE. Those applicants for whom the initial evaluation indicates the scholastic competence necessary to successfully pursue a graduate degree may be further evaluated by personal interview.
PhD applicants will be evaluated based on the following:

- Baccalaureate degree in a relevant scientific discipline
- GPA (3.0 or better for PhD programs, 3.0 preferred for MS programs)
- Three letters of recommendation (see MS Biomedical Sciences exception below)
- A personal statement
- A GRE score ≥300 on the combined verbal and quantitative scores is preferred
- Students whose combined verbal and quantitative scores are ≥ 300 (preferred for tests taken after 8/1/11) or >1000 (for tests taken before 8/1/11) will be granted full admission to the School of Graduate Studies. Students whose combined verbal and quantitative scores are < 300 (new GRE) or < 1000 (old GRE) will be considered for conditional admission based on the recommendation of the program director. To be removed from conditional status the student must, within three academic semesters of admission, attain a GPA of ≥3.0, or retake the GRE and score ≥300 (new GRE). Conditional students who fail to meet the criteria listed above will be dismissed from the program. Notwithstanding the above, individual programs may set higher minimum standards than those required by the School of Graduate Studies.

MS applicant requirements are similar to those seeking the PhD degree with the listed exceptions:

- A GRE score ≥295 on the combined verbal and quantitative scores,
- Or a DAT score ≥15,
- Or an MCAT score ≥492 (new format) or ≥20 (old format)

is also acceptable for those applying to the MS-Biomedical Sciences and MS-Clinical Anatomy programs.

For both the Masters in Clinical Investigation and Masters in Pathology, program admission specific requirements can be found in the specific program section of this Bulletin.

For both MS and PhD programs, individual programs may set higher minimum standards than those required by the School of Graduate Studies. In view of that, students are requested to consult the director of their intended program of study and ascertain program-specific requirements.

Applicants whose native language is not English and/or who have completed their tertiary education primarily outside of the USA must submit official scores of the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IELTS) or Pearson Test of English-Academic (PTE-A) as evidence of English language proficiency.

- TOEFL-Internet Based Test (IBT): 79 or higher
- TOEFL-Paper Based Test (PBT): 550 or higher
- IELTS: 6.5 overall band score or higher
- PTE-A: 53 or higher

However, this requirement may be waived for students who are currently enrolled at a college or university in the United States and/or who demonstrate a proficiency in written and spoken English following a personal interview. Admission of a student to a graduate program must be approved by the program director and by the dean of the Graduate School. No individual may enroll in graduate level courses without proper approval and notification from the School of Graduate Studies in the Health Sciences.

**Conditional Acceptance** - Acceptance to the School of Graduate Studies is conditional; the Admission Committee may rescind an offer of acceptance at any time before matriculation if an applicant fails to maintain expectations upon which the acceptance was based. Examples include, but are not limited to, a significant decline in academic performance, failure to complete prerequisites or other course work and degrees in progress, patterns of unprofessional behavior and incidents discovered in a criminal background check.

**Criminal Background Checks (CBCs)** - Any preadmission agreement executed by the health care program with a student shall be void if there is a disqualifying incident or pattern of unprofessional behavior in the CBC prior to enrollment.

**Fingerprint-Based CBC** - Effective July 1, 2004, Section 37-29-232 of the Mississippi Code requires that students enrolled in a health care professional academic program undergo fingerprinting and CBC. All accepted applicants must call the School of Graduate Studies to schedule an appointment with UMMC Human Resources prior to enrollment so that a set of digital fingerprints and photograph can be required. Fingerprints will be submitted to the Mississippi Public Safety Commission and Department of Justice Federal Bureau of Investigation for a criminal background check. If any potentially disqualifying event is reported, Human Resources will mail to the Graduate School applicant a letter (such as Determination of Non-suitability for Employment in a Healthcare Facility) indicating that a potentially disqualifying event(s) has been reported and a copy of the criminal history report record. Copies will be sent to the Dean of the School of Graduate Studies. Currently, there is no charge to the applicant for this service.

**TECHNICAL STANDARDS FOR ADMISSION**

Technical Standards are non-academic requirements essential for meeting the academic requirements of the programs in the School of Graduate Studies in the Health Sciences. Within any area of specialization, students must demonstrate competence in those intellectual and physical tasks that together represent the fundamentals of research in their chosen discipline.

The PhD degree programs and some of the MS degree programs at The University of Mississippi Medical Center School of Graduate Studies in the Health Sciences require a dissertation or thesis based on independent research. Granting of those degrees implies the recipient has demonstrated a base of knowledge in their chosen field of study and the ability to independently apply that knowledge to form hypotheses, design and conduct experiments, interpret experimental results, and communicate these findings to the scientific community. Thus, a candidate for the PhD or MS degree in the health sciences must possess abilities and skills that allow for observation, intellectual and conceptual reasoning, motor coordination, and communication. The use of a trained intermediary is not acceptable.
The following technical skills are required of a successful PhD student:

**Observation**
The candidate must be able to acquire knowledge by direct observation of demonstrations, experiments, and experiences within the research and instructional setting.

**Intelectual/Conceptual Abilities**
The candidate must be able to measure, calculate, analyze, reason, integrate and synthesize information to solve problems.

**Motor Skills**
The candidate must possess motor skills necessary to perform procedures required for experimentation within the chosen discipline. Those individuals with physical challenges are encouraged to contact the appropriate administration to determine their educational options within the chosen discipline.

**Communication**
The candidate must be able to communicate and discuss his or her experimental hypotheses and results to the scientific community.

**Behavioral and Social Attributes**
The candidate must possess the emotional and mental health required for full utilization of his or her intellectual abilities, the exercise of good judgment, the prompt completion of responsibilities inherent in managing a scientific setting, the ability to function under the stress inherent in research, and the ability to understand and comply with ethical standards for the conduct of research.

**APPLICATION PROCEDURE**
The application may be obtained online from the School of Graduate Studies website. If problems are encountered, please contact the graduate school office for assistance (601-984-1195).

All transcripts and documents submitted to the Office of Student Records and Registrar in support of an application become the property of The University of Mississippi Medical Center and will not be returned to an applicant or forwarded to another school or individual. Contact information: Office of Student Records and Registrar, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216, 601-984-1080, 601-984-1079 (Fax).

**DEADLINES FOR APPLICATIONS** - The SGSHS accepts applications throughout the calendar year. However, applications for a specific academic terms must be received by the Office of Student Records and Registrar by the deadlines below:

- Summer Term: April 1
- Fall Semester: June 1
- Spring Semester: October 1
- Prospective PhD students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15.
- MS Clinical Investigation: May 1
- MS Programs: June 1

Students wishing to be considered for a graduate stipend for the upcoming Fall semester should apply for admission prior to April 1. Stipends are assigned on a competitive basis. An applicant is considered for the enrollment period designated on the application. If the applicant is accepted and fails to enroll, or is not accepted, a new application must be submitted if consideration for a subsequent enrollment date is desired.

**APPLICATION FEE** - A nonrefundable fee of $25 must accompany the initial application.

**REGISTRATION** - Registration for classes is not permitted unless the applicant has received notification of acceptance to a specific graduate program from the School of Graduate Studies in the Health Sciences. Registration for courses must be approved by the graduate program director and advisor. No credit is given for any course for which a student is not officially registered. All students and advisors must complete the required Registration Approval Form before each semester.

**NON-DEGREE SEEKING STUDENTS** - UMMC employees who wish to take graduate courses but are not members of a University of Mississippi Medical Center graduate program may apply as non-degree seeking students. Applicants must first complete an Approval to Register Form. The form and instructions for the Non-Degree Student are located on the Graduate School website. Non-degree students may not earn more than 9 semester hours. Furthermore, successful completion of courses taken does not in itself qualify the individual for subsequent admission to a graduate program.

**TUITION AND REQUIRED FEES**
Tuition and fees for the 2015-2016 academic year can be found on the institutional website. Non-resident PhD students will pay in-state tuition. Tuition is subject to change pending information from the Institutions of Higher Learning (IHL).

**GRADUATE STUDENT HANDBOOK**
The purpose of the School of Graduate Studies Handbook is to provide students with specific information concerning school policies, regulations and services. As a student of the University of Mississippi Medical Center School of Graduate Studies, you are responsible to read and become familiar with the contents of this handbook and all other such publications by the institution. The Graduate School Student Handbook can be found on the School of Graduate Studies website. Additional institutional policies can be found in the UMMC Document Center.
REQUIRED LAPTOPS

Entering students are required to have a laptop computer that meets the annually revised UMMC Minimal Laptop Specifications that are posted on the School of Graduate Studies website. Students should purchase a laptop meeting or exceeding the UMMC Minimal Specifications from regular retail channels. Students will be personally responsible for maintenance/repair of their laptop. All students are required to maintain up to date virus and spyware detection software to allow access to the UMMC public wireless network. Students should acquire their laptop prior to the first week of August. Students will need to bring their functional laptop to a computer orientation.

PREDOCTORAL FINANCIAL ASSISTANCE

STIPENDS AND LOANS

Financial support in the form of stipends may be available in some programs. Academic excellence, maturity, and research experience are the main qualifications considered in the appointment of trainees and assistants. Inquiries should be addressed to the director of the graduate program in which the applicant wishes to undertake study. Students receiving a stipend are assessed in-state fees. Stipends are not tax exempt and tuition is paid from the stipends. Information on the Graduate School Stipend Policy can be found at the website. Graduate Students may also apply for additional funding through various loan mechanisms. Students should contact the Office of Student Accounting and Financial Aid to determine if they qualify for these loan programs.

SCHOLARSHIPS AND AWARDS

DEAN’S SCHOLARSHIP. The Dean’s Scholarship is a full-tuition recruitment scholarship which is awarded to students for outstanding academic achievement. All students on stipends or extramural support are eligible for the Dean’s Scholarship.

DEAN’S SERVICE AWARD. Presented to the graduate student who exemplifies the outstanding attributes of leadership, community outreach and service.

DR. L. WILLIAM CLEM ENDOWED MEMORIAL AWARD. This award, endowed by a generous gift from Dr. Wei Yu and wife Dr. Fei Lu, provides funds for student travel to scientific meetings and for other allowable student expenses. The award is available to Microbiology and Immunology students who are in good academic standing. Recipients will be selected by the Microbiology Graduate Faculty and approved by the Dean of the School of Graduate Studies in the Health Sciences.

HELEN REEVES TURNER, MD, PHD AWARD. Established in 2013 and is awarded each year to a deserving student from one of the Medical Center Schools. The recipient of this award, selected by the dean or his designee, exemplifies Dr. Turner’s outstanding attributes of leadership, education and service.

RANDALL-TRUSTMARK GRADUATE RESEARCH AWARD. This award is made in memory of Dr. Charles C Randall, the first chair of microbiology at UMMC and an early director of Graduate Studies at UMMC. Dr. Randall set a high standard for scholarship and directed graduate studies during its formative years at UMMC. The Randall-Trustmark Graduate Research Award and cash prize are presented in recognition of outstanding research accomplishments and scientific contributions by a Graduate Student.

REGIONS GRADUATE RESEARCH AWARD. The Regions Graduate Research Award and cash prize are presented in recognition of outstanding research accomplishments by a Graduate Student.

ROBERT A. MAHAFFEY JR., MEMORIAL AWARD. It was the first research award established at UMMC for the recognition, encouragement, and promotion of superior scientific capability of young investigators. Established in 1976 in memory of the late Robert Mahaffey Jr., a UMMC graduate student in immunopathology, this award consists of a cash prize and certificate, signed by the Vice-Chancellor, awarded to each recipient in recognition of exceptional research potential in basic or clinical biomedical science. In addition, the recipient’s name is engraved on a permanent plaque displayed in the Medical Center.

REGULATIONS AND OTHER INFORMATION

SCHOLASTIC REQUIREMENTS - It is the responsibility of the student to ascertain the general and specific requirements for the degree program in which they are enrolled. Students can obtain all relevant information from the program director, their advisor, or the Office of the Dean, School of Graduate Studies in the Health Sciences.

GRADING POLICY - In order to be in Good Academic Standing, a Ph.D. student must maintain a grade point average (GPA) of 3.0 or higher based on a four point grading scale or an 80% weighted numerical average as stated in the SGSHS Grading Policy. Individual programs may have specific academic requirements in addition to those stated here.

Under such a scale a grade of A is assessed 4 points, a B 3 points, a C 2 points, and an F 0 points. A grade of F is not acceptable for graduate credit but is included in the calculation of the student’s GPA. A grade of C is acceptable for graduate credit, but an overall GPA ≥ 3.0 must be maintained. Students whose GPA falls below 3.0 or an 80% weighted numerical average after the first year, will be placed on academic probation and have 3 continuous semesters to raise their GPA to an acceptable level. Individual programs may have specific academic requirements in addition to those stated here. Repeating a course must be recommended by the student’s advisor and approved by the program director and course director. When a course is repeated, the second grade will be used in determining the student’s overall weighted average, however the first grade will remain on the transcript. A course may be repeated only once.

In certain courses a mark of P is given to indicate that a student has received graduate credit but has been assigned no point grade in the course. For example, official credit for satisfactory scholastic performance in seminars, journal clubs, research, and preparation of the dissertation or thesis may be recorded as P. However, in courses approved for the P mark, course directors may assign the grade of F. An Incomplete (I) may be assigned with the approval of the dean when the student has not completed a course within the enrollment period. Graduate students receiving the mark of I must complete the course work within 12 months from the time the grade was assigned, unless the course director requires an earlier completion date.
A course instructor may change a reported grade only if the original grade was incorrectly assigned due to clerical or computational error, or if a student meets the requirements for the removal of an I grade.

**ADD OR DROP A COURSE** - The request form to add or drop a class is found on the SGSHS website under forms. Classes may be added until the day specified by the academic calendar. Registration for a course makes the student responsible for attending that class until the course is completed or until the program director and dean of the Graduate School authorize withdrawal from that course. Approved withdrawals from a course, if completed on or before the day specified by the academic calendar, will not be recorded on the student's record. Withdrawals authorized after that date will be recorded as W. A student can withdraw from a course and receive a W at any time up to the submission of the final grade. Once the final grade has been submitted, withdrawal is not permitted. Students may challenge grades within 30 days of issuance of final grades by the Office of Student Records and Registrar; otherwise, grades will stand as recorded.

**ACADEMIC PROBATION** – If at any time during an academic year the progress of a student is considered unsatisfactory, the student may be placed on academic probation or dismissed from the program. Students who are placed on academic probation because their GPA has fallen below 3.0 (PhD) or an 80% weighted numerical average or below 2.8 (MS) or a 75% weighted numerical average will have 3 semesters to raise their GPA to 3.0 (PhD) or 2.8 (MS) or higher. Failure to do so will result in dismissal. Dismissal of a student from graduate school can only occur after review by the dean of the Graduate School and, if necessary, by a hearing before a subcommittee of the Graduate Council at which the student has the opportunity to explain any unsatisfactory performance. The details of this process are described below.

**DISMISSAL FROM THE SCHOOL OF GRADUATE STUDIES** – Graduate students may be dismissed from the graduate program for cause. This may include unsatisfactory academic performance, failure to pass qualifying examinations, poor research performance, breaches of scientific integrity, i.e., plagiarism, falsification of data, etc., or personnel issues, i.e. harassment. Dismissal of a student from graduate school is initiated by the program director of the student’s program, and approved by a vote of the faculty or executive committee of that program. A recommendation for dismissal is then submitted in writing to the Dean of the Graduate School. Following his/her approval, the Dean of the Graduate School will notify the student in writing of the intention to dismiss. Further information on the policy can be found on the SGSHS website.

**TRANSFER OF GRADUATE CREDIT FROM ANOTHER INSTITUTION** - With the approval of the program director and the Dean of the Graduate School, academic credit equal to no more than half the number of hours required for graduation may be transferred from a previous graduate program. However, credit from another institution will be accepted only when it is clearly relevant to the student’s current program. Acceptance of transfer credit does not reduce the residency requirement. Forms for transfer of credit hours are available online. There is no credit given for experiential learning. Grades received in transfer courses are not used to calculate the student’s GPA, but are counted toward the hours required for a given graduate degree. Transfer courses are indicated on the student's transcript by the designation T, to indicate credit has been given.

**WITHDRAWAL FROM THE GRADUATE SCHOOL** - A student who withdraws from the Graduate School must submit a Request for Withdrawal Form to the SGSHS office. This form is found on the SGSHS website. Failure to officially withdraw will result in a grade of F for each course in which the student is registered.

**LEAVE OF ABSENCE** - Leave of absence from graduate school may be granted by the dean or his/her administrative designee who meet the conditions listed in the Graduate Handbook.

- To students in good academic standing, leaves of absence will be granted for periods for up to 12 months to pursue training at another institution,

- To students in good academic standing, leaves of absence for generally no more than one academic semester will be allowed for personal, financial, or medical reasons, and

- To students not in good academic standing, leaves of absence may be granted at the discretion of the program director and Dean of the School. Such students will be permitted the option of withdrawal.

Forms are available online.

**DEGREES AND COMMENCEMENT** - Degrees earned in a graduate program are awarded at the end of each semester. A student must complete all degree requirements and complete an Application for Graduation through the MyU Portal by the dates designated in the academic calendar. All graduates are encouraged to participate in spring commencement exercises.

**COURSE LOAD** - A full-time course load in the School of Graduate Studies is 9 credit hours per semester. Student and advisor must complete required registration approval form.

**ENROLLMENT POLICY** – Once students are accepted into a program, they must be continuously enrolled in classes until the degree is completed or have been granted a leave of absence. Leave of absence forms can be obtained from the SGSHS website.

**COUNSELING**

Professional and career counseling are available from each program director, the Graduate School deans, and other appropriate professionals at The University of Mississippi Medical Center. Personal counseling services related to life, relationships, work, money, legal, family and everyday issues, UMMC students my contact UMMC's Student and Employee Assistance Program, LifeSynch, username: UMMC, password: UMMC, or 866-219-1232)

**STUDENT GOVERNMENT**

The Graduate Student Body constitutes the student government executive organization of the students enrolled in the graduate programs at the UMMC. Elected officers and representatives serve in various student government capacities.
GRADUATE PROGRAMS

A range of circumstances and conditions determines the number of admissions to the various graduate programs. Therefore, students interested in a particular program of study are strongly urged to contact the director of that program prior to completing an application to determine whether openings exist for the current academic year and to ascertain specific program requirements.

MASTER OF SCIENCE

The School of Graduate Studies in the Health Sciences offers Master of Science degrees in Biomedical Sciences, Clinical Anatomy, Biomedical Materials Science, Clinical Investigation, and Pathology. Within the Biomedical Sciences program are two tracks: Biomedical Sciences and Maternal-Fetal Medicine (MD degree required). Information about each of these two tracks can be obtained from the program director or from the relevant section of the Bulletin.

RESIDENCE REQUIREMENTS - A minimum of one academic year must be spent in continuous residence as a full-time student at The University of Mississippi Medical Center to qualify for a Master’s degree.

ACADEMIC REQUIREMENTS (NUMBER OF CREDITS/MINIMUM GRADE POINT AVERAGE) - A minimum of 30 (semester) credit hours is required for the MS degree. The minimum GPA for a MS degree is 2.8 (on the 4 point scale) or a weighted numerical average (WNA) of 75%. These requirements notwithstanding, individual MS programs can establish more stringent criteria for graduation.

TIME LIMIT - The time limit for completing all requirements for a Master of Science degree is six years from the date of first registration.

THESIS - Some programs may require a thesis as a requirement for graduation. The thesis should show evidence of original investigation. Thesis must be approved by the advisory committee and the SGSHS dean. An oral examination and thesis defense is mandatory in programs requiring a thesis. The candidate’s Advisory Committee will conduct the examination.

DOCTOR OF PHILOSOPHY

The degree of Doctor of Philosophy is offered by the University of Mississippi Medical Center in Biochemistry, Biomedical Materials Science, Clinical Anatomy, Medical Pharmacology, Microbiology and Immunology, Neurosciences, Nursing, Pathology, and Physiology and Biophysics. In addition, a combined MD/PhD program is offered to highly qualified students who wish to pursue a career as physician-scientist (see below). Prospective students interested in any of these programs are invited to contact the specific program in which they wish to study or the School of Graduate Studies in the Health Sciences, University of Mississippi Medical Center, Jackson, Mississippi 39216-4505.

The Doctor of Philosophy degree is a research degree and is not conferred solely as a result of formal course work, no matter how superior and extensive. The program leading to the PhD degree represents more than the sum of time in residence, and the plans of study listed below are only a minimum. To receive the doctoral degree, the candidate must demonstrate evidence of proficiency and distinctive attainment in a special field, and a recognized ability for independent investigation as presented in a dissertation based upon original research. The following requirements for the PhD degree are the minimal requirements and apply to all students seeking the doctoral degree. Because individual programs may have additional specific requirements, the student is urged to clearly identify them before beginning a course of study. A description of program-specific policies is available from the relevant program director.

ADMISSION REQUIREMENTS - The previously listed general requirements for admission to a graduate program apply to the doctoral programs.

RESIDENCE REQUIREMENTS - A minimum of one academic year must be spent in continuous residence as a full-time student at the University of Mississippi Medical Center to qualify for a PhD degree.

TIME LIMITS - Completion of a PhD degree generally requires five to six years, but must take no more than five years following admission to candidacy.

FULL-TIME STUDENT - The University of Mississippi Medical Center graduate student is considered a full-time student if he/she is enrolled in 9 credit hours/semester. Complete required Approval to Register form online.

ACADEMIC REQUIREMENTS (NUMBER OF CREDITS/MINIMUM GRADE POINT AVERAGE)

COURSE WORK - All doctorate degrees require a minimum of 60 credit hours beyond a baccalaureate degree (or 30 credit hours beyond a master’s degree). Credits representing research and preparation of the dissertation are to be earned as directed by the student’s Advisory Committee. Credit hour requirements may differ for other programs so the student should consult the relevant program director for specific details.

MINIMUM GRADE POINT AVERAGE – The minimum GPA to obtain the PhD degree is a GPA of 3.0 (on a 4.0 scale) or a weighted numerical average of 80%. This requirement notwithstanding individual graduate programs may choose to set a higher standard for their program.

LABORATORY ROTATIONS - Laboratory rotations allow students the opportunity to discover the many different areas of research at UMMC, familiarize themselves with the lab communities, and determine whether a particular lab environment would be suitable for their dissertation research.

QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY - An examination to qualify students for admission to Candidacy for the PhD degree is administered by each program within the School of Graduate Studies. The Qualifying Examination is given to graduate students in good academic standing upon completion of coursework. The exact form of the examination (oral, written, comprehensive, or research based) varies from program to program. Information on the specific format used within a program may be obtained from the relevant Program Director or from the program’s policy manual.

DISSERTATION ADVISORY COMMITTEE - PhD Advisory Committee members must be members of the graduate faculty or approved by the Dean of the Graduate School. The advisory committee must consist of a minimum of five members – four Graduate faculty members, three of which must be within the student’s major program and at least one graduate faculty member from outside the program. The
student’s advisor serves as chairman of the committee. The other members of the committee are nominated by the chairman of the Advisory Committee with the approval of the graduate program director of the major program and the dean of the Graduate School. The Nomination of Advisory Committee Form found on the SGSHS website should be submitted to the Office of the Graduate School. It is the responsibility of the student to prepare and deliver the completed forms to the appropriate office or individual.

**Dissertation** - The dissertation must show originality of thought and demonstrate the results of independent investigation. It should contribute to the advancement of knowledge, exhibit mastery of the subject literature, and be written with an acceptable degree of literary skill. The dissertation, written according to prescribed form, is prepared under the direction of the candidate’s advisor and must be approved by the candidate’s Dissertation Advisory Committee and the dean of the Graduate School. This approval must be obtained and all other requirements completed by the date given in the official academic calendar. Guidelines outlining the prescribed form for a student’s written dissertation can be found the SGSHS website.

**Dissertation Defense** - The dissertation defense is conducted by the candidate’s Advisory Committee and consists of a public presentation and defense of the dissertation. **Two weeks** prior to a student’s public defense, an administrative staff member from that particular program sends announcement information to the Graduate School office. The following information should be included in the announcement: Student Name, Program, Dissertation or Thesis, Title of Dissertation/Thesis, Date of Defense, Time of Defense, and Place of Defense. In private deliberation, the Advisory Committee will determine the acceptability of the defense and dissertation. Further questioning of the candidate may be included in the committee’s deliberations. The dissertation must be submitted to the Advisory Committee at least 10 days before the examination. Five members of the Advisory Committee must be present at the final oral examination.

**Additional Graduation Requirements**

- Students receiving the PhD degree are required to have the results of their research accepted for publication prior to awarding of the degree. This manuscript must meet the publication requirement, i.e., the student must be listed as the sole first author on at least one publication in a national or international peer-reviewed journal. Verification of the publication requirement requires submission of the Publication Requirement Form found online.
- All students must pass ID709 (Responsible Conduct in Research) with the exception of students enrolled in the PhD in Clinical Health Science (CHS) and Doctorate of Nursing (PHN) programs who must take ID 700 (Ethics in Research). In addition, all graduates with the exception of CHS and PHN students must successfully pass ID714 (Professional Skills).

**MD/PhD Program**

The goal of the MD/PhD program is to train medical students to become physician-scientists. To prepare students for careers in academic medicine, the program will provide them with a broad understanding of contemporary medical knowledge and the ability to productively investigate issues related to human disease. The MD/PhD Program is a seven-year program consisting of the first three years of medical school (M1-M3), three years of graduate study (G1-G3), and a final year of medicine (M4). To closely align clinical and research interests, students typically select an area for graduate study during their M3 year and maintain association with their clinical interests through interaction with clinical faculty mentors during their G1-G3 years.

Acceptance into the MD/PhD program at The University of Mississippi Medical Center requires prior admission into medical school. Moreover, in addition to completion of all medical school application materials, the applicant must also submit their GRE scores and a written personal statement indicating the reasons for choosing the MD/PhD program (see options on the School of Medicine’s Secondary Application). Since the purpose of the MD/PhD program is to train clinical researchers, each applicant should list under “Experiences” in his/her American Medical College Application Service (AMCAS) application all relevant research experience and research presentations and provide at least one letter of recommendation from an individual capable of evaluating the applicant’s research potential. All application materials should be sent to the associate dean for medical school admissions. MD/PhD applicants who are invited to interview with the Medical School Admissions Committee will also meet with one or more members of the graduate school’s MD/PhD Admissions Committee.

To prior the interview with the Graduate School, the student must complete the Graduate School application for the PhD program.

The MD/PhD program is a 3/3/1 pathway (3 years Medical School, 3 years Graduate School and the last year in Medical School). During the M1 or M2 year students may take the graduate school’s Responsible Conduct in Research course (ID709). If the student’s research interests involve the use of vertebrate animals, MD/PhD students may also take “An Introduction to Animal Research” (ID704). In addition, courses taken for graduate credit during the M1 and M2 years may have additional departmental requirements. After identification of a specific program in which to pursue a PhD degree and with the Program Director’s recommendation to the dean of the Graduate School, an MD/PhD student will receive graduate credit for relevant courses taken during the M1/M2 years.

Prior to choosing a program in which to major, MD/PhD students will be required to attend specific departmental seminars in research areas of interest. When a major program has been identified, not later than April 1 of their M3 year, the MD/PhD student will select an advisor and begin to fulfill specific requirements of that PhD program.

Years G1 through G3 are devoted to research and writing and fulfilling all program requirements for the PhD. It is anticipated that some candidates may wish to continue research during their M4 year, which would be permitted, even encouraged.

**Laboratory Rotations**

MD/PhD students are required to complete lab rotations in a minimum of three mentors’ labs in 2 different departments during the summer terms prior to their M1 and M2 years. The summer prior to their M1 year, the student will complete a five-week rotation in two different biomedical science programs. For the summer prior to the M2 year, the student may opt to complete the entire 10-week lab rotation in only one program or choose a new one.
FACULTY AND COURSES OF INSTRUCTION

All courses listed by programs offering graduate degrees are not available each semester. For information on availability of courses the student should access the SGSHS website for current schedules and the SGSHS Bulletin or contact the office of the specific program. Approval of the instructor is required for registration in all courses outside the major program. When approved by the dean of the graduate school and the program director, specific basic science courses required for the DMD or MD degree may be included in programs leading to graduate degrees.

For each program listed below, an outline of courses, taken during the first two years of graduate study, is presented. These plans will provide the greater part of the course work required for a PhD degree. Additional courses, needed to attain the required 60 hours are listed in the course offerings.

BIOCHEMISTRY PROGRAM

Drazen Raucher, PhD, Director

FACULTY

Professors:
Azzedine Atfi, PhD
David R. Brown, PhD
John J. Correia, PhD
Michael Hebert, PhD

Jonathan P. Hosler, PhD
Wolfgang Kramer, PhD
Sharon A. Lobert, PhD
Drazen Raucher, PhD

Associate Professors:
Radhika Pochampally, PhD

Damian Romero, PhD

Assistant Professors:
Lee Bidwell, PhD
Eric George, PhD
Maureen Wirschell, PhD

The Department of Biochemistry offers a 4-5 year program of study leading to the Ph.D. degree. The program begins with course work, followed by a combination of course work and laboratory research and finishes with independent research conducted in the laboratory of one of the faculty. The department is well equipped for biochemical training and research. Each faculty member has generous laboratory space and the specialized equipment necessary for his/her research. In addition, there is an abundance of shared, state-of-the-art, departmental equipment and facilities. Application for predoctoral funding is promoted as an essential part of the students training and development. The Department of Biochemistry is strongly committed to graduate research and teaching. A particular advantage is that the department is relatively small in size, which promotes close scientific interactions between faculty members and students.

BIOCH 704. Fundamental Biochemistry. This course that presents a broad survey of biochemistry that is suitable for students whose major area of study is outside the discipline. Topics include the chemistry of amino acids and proteins, nucleic acids, carbohydrates and lipids; enzymology; metabolism and metabolic regulation; membrane structure and function; oxidative phosphorylation; hormonal control mechanisms; molecular biology and protein synthesis as well as aspects of oral biology and dental biochemistry Traditional Lecture (7 credit hours)

BIOCH 710. Biochemistry. Comprehensive course in biochemistry including chemistry of amino acids and proteins, nucleic acids, carbohydrates and lipids; enzymology; metabolism and metabolic regulation; membrane structure and function; physical biochemistry; cellular energy production; hormonal control mechanisms; differentiation; molecular genetics; and protein synthesis. This course extends over two quarters and the entire course must be completed to receive credit Traditional Lecture (10 credit hours)

BIOCH 711. Mechanisms of Enzyme Action. A study of the kinetics, mechanism of action, metabolic regulation and chemistry of enzymes. Traditional Lecture (2 credit hours)

BIOCH 715. Physical Biochemistry. An introduction to methods in physical biochemistry: a problem solving approach including ligand binding, spectroscopy, fluorescence, circular dichroism, centrifugation, light scattering, electrophoresis, and separation techniques. Traditional Lecture (2 credit hours)

BIOCH 720. Seminar. A course in which the student prepares and presents a research seminar on a topic of contemporary interest. Traditional Lecture (1-4 credit hours)

BIOCH 730. Special Topics. Treatment of specific subjects not dealt with fully in other courses. Traditional Lecture (1-9 credit hours)

BIOCH 731. Special Topics II. Treatment of specific subjects not dealt with fully in other courses Traditional Lecture (1-15 credit hours)

BIOCH 740. Biochemical Methods. Primarily a laboratory course having the objective of introducing the student to various basic procedures and techniques which are tools of biochemical research. Traditional Lecture (2 credit hours)

BIOCH 741. Advanced Biochemical Methods. An advanced laboratory course in which the student is involved in advanced procedures and techniques which are tools of biochemical research. Traditional Laboratory (1-9 credit hours)

BIOCH 742. Research Tools in Molecular Biology. A course designed to introduce students to contemporary methods in Molecular Biology including cloning, mutagenesis, transgenic animals, Genomics, Proteomics, and gene expression. Traditional Lecture (3 credit hours)

BIOCH 744. Cellular Biochemistry. Cellular Biochemistry will cover the structure and function of eukaryotic cells. Topics covered include: gene expression and its regulation, cell cycle, organelle function, signal transduction, intracellular transport, bioenergetics, and model genetic systems. Traditional Lecture (6 credit hours)

BIOCH 760. Biochemistry Research. Thesis research project under supervision of Thesis Advisor Traditional Laboratory (1-9 credit hours)

BIOCH 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 credit hours)

PLAN OF STUDY

YEAR 1 - FALL
BIOCH 710  Biochemistry  10
BIOCH 740  Biochemical Methods  2
ID 709  Responsible Conduct in Research  1

YEAR 1 - SPRING
BIOCH 711  Mechanisms of Enzyme Action  2
BIOCH 715  Physical Biochemistry  2
BIOCH 741  Advanced Biochemical Methods  1
BIOCH 720  BIOCH Journal Club (Seminar)  1
Elective  3

YEAR 2 - SUMMER
BIOCH 760  Biochemistry Research  9

YEAR 2 - FALL
BIOCH 720  BIOCH Journal Club (Seminar)  1
ID 740  Statistical Methods in Research I  3
BIOCH 760  Biochemistry Research  5

YEAR 2 - SPRING
BIOCH 744  Cellular Biochemistry  6
BIOCH 720  BIOCH Journal Club (Seminar)  1
ID 710  Research Tools in Molecular Biology  3
BIOCH 760  Biochemistry Research  1
ID 714  Professional Skills  1

YEAR 3+ - FALL
BIOCH 798  Dissertation and Dissertation Research  9

YEAR 3+ - SPRING
BIOCH 798  Dissertation and Dissertation Research  9

BIOMEDICAL MATERIALS SCIENCE PROGRAM
Kenneth R. St. John, PhD, Director

FACULTY

Professors:
Jason A. Griggs, PhD  Aaron D. Puckett, PhD

Associate Professors:
Amol V. Janorkar, PhD  Denise D. Krause, PhD  Kenneth R. St. John, PhD

Assistant Professors:
Jennifer Bain, DMD, PhD  Linda K. Fulton, DVM  R. Scott Williamson, PhD
Yuanyuan Duan, PhD  Michael D. Roach, PhD

BMS 701A. Fundamentals of Materials Science A. An introductory graduate level course dealing with the fundamental concepts of bonding, crystalline structure, crystal defects and short range order as they relate to polymers, metals and ceramics. Nucleation and growth, equilibrium and non-equilibrium phase transformations and solidification on non-crystalline systems will be discussed. This will be followed by discussion of the mechanical properties of materials (fatigue, creep, elastic and plastic behavior, stress relaxation, etc.) and their relationship to structure. Alloy theory and other strengthening mechanisms, including composite theory, will be dealt with at an introductory level. The thermodynamics and kinetics of surfaces undergoing oxidation and aqueous corrosion will be discussed. Prerequisite: BMS 708 or consent of instructor. Traditional Lecture (3 credit hours)

BMS 701B. Fundamentals of Materials Science B. An introductory graduate level course dealing with the fundamental concepts of bonding, crystalline structure, crystal defects and short range order as they relate to polymers, metals and ceramics. Nucleation and growth, equilibrium and non-equilibrium phase transformations and solidification on non-crystalline systems will be discussed. This will be followed by discussion of the mechanical properties of materials (fatigue, creep, elastic and plastic behavior, stress relaxation, etc.) and their relationship to structure. Alloy theory and other strengthening mechanisms, including composite theory, will be dealt with at an introductory level. The thermodynamics and kinetics of surfaces undergoing oxidation and aqueous corrosion will be discussed. Prerequisite: BMS 701A or consent of instructor. Traditional Lecture (3 credit hours)
BMS 702A. Fundamentals of Biomaterials A. A two semester course that will deal with metals, ceramics and polymers used for dental and medical applications. The physical, mechanical and biological interactions of these materials will be topics for discussion. The history of materials use in medicine, some of the pitfalls encountered and the current state of the art will be presented in detail. Tissue engineered medical products and guided tissue regeneration will also be covered. There will be an introduction to the methods used to assess the appropriateness of materials for use in contact with living tissues. Prerequisite: B.M.S. 701A or Consent of Instructor. Traditional Lecture (3 credit hours)

BMS 702B. Fundamentals of Biomaterials B. A two semester course that will deal with metals, ceramics and polymers used for dental and medical applications. The physical, mechanical and biological interactions of these materials will be topics for discussion. The history of materials use in medicine, some of the pitfalls encountered and the current state of the art will be presented in detail. Tissue engineered medical products and guided tissue regeneration will also be covered. There will be an introduction to the methods used to assess the appropriateness of materials for use in contact with living tissues. Prerequisite: B.M.S. 702A or Consent of Instructor. Traditional Lecture (3 credit hours)

BMS 703A. Experimental Methods in Material Science A. An introductory theory and laboratory course designed to acquaint students with the variety of equipment used to evaluate the structure and properties of materials. Scanning electron microscopy, mechanical testing, thermal analysis, light microscopy, x-ray scattering and other chemical and physical characterization techniques will be covered. The course will include both didactic and laboratory exercises and will meet an average of once per week for two semesters. The course will be taught simultaneously with BMS 701A and will involve the concurrent hands-on synthesis, processing, and characterization of materials and determination of the properties being taught in that course. Traditional Lecture (3 credit hours)

BMS 703B. Experimental Methods in Material Science B. An introductory theory and laboratory course designed to acquaint students with the variety of equipment used to evaluate the structure and properties of materials. Scanning electron microscopy, mechanical testing, thermal analysis, light microscopy, x-ray scattering and other chemical and physical characterization techniques will be covered. The course will include both didactic and laboratory exercises and will meet an average of once per week for two semesters. The course will be taught simultaneously with BMS 701B and will involve the concurrent hands-on synthesis, processing, and characterization of materials and determination of the properties being taught in that course. Traditional Lecture/Lab (1 credit hours)

BMS 704. Crystallography and X-Ray Diffraction. Principles of crystallography, including point groups, space groups, stereographic projections and reciprocal lattice, will be discussed. Topics in x-ray diffraction, with special emphasis on application of x-ray diffraction techniques to materials analysis, will be covered during lecture and laboratory. Traditional Lecture (3 credit hours)

BMS 705. Materials Thermodynamics. A graduate level course dealing with the principles of energetic equilibrium as applied to materials science. Materials thermodynamics provides a foundation for many other materials science courses. The first part of this course will introduce the apparatus of thermodynamics through classical steam engine calculations. The second part will apply that apparatus to predict the behavior of chemical solutions and mixtures. The following topics will be covered: the first, second, and third laws of thermodynamics; state functions and process variables; criteria for equilibrium; enthalpy of mixing; free energy basis for unary and binary phase diagrams; capillarity and surface energy; electrochemistry. This course will involve intensive application of algebra and differential and integral calculus. Prerequisite: BMS 701A/B and BMS 708 or Consent of Instructor. Traditional Lecture (4 credit hours)

BMS 708. Mathematics for Materials Study. This introductory graduate level course is for students who have a biological science background or who have not taken didactic study for some time. This course provides or refreshes the mathematical foundation necessary to study engineering. BMS708 is a prerequisite for many courses in the Biomedical Materials Science program. This course covers the following topics: orientation to MathCAD software, precision and accuracy, vector algebra, matrix algebra, complex/imaginary numbers, polar coordinates, trigonometry, differential calculus with emphasis on applications (curve sketching, design optimization, related rates, propagation of error, successive approximations, curvilinear motion), integral calculus with emphasis on applications (calculation of irregular areas, volumes, centroids, and moments of inertia; function approximation using Taylor series; spectrum analysis using Fourier series), and a brief introduction to differential equations. Traditional Lecture (4 credit hours)

BMS 710. Fundamentals of Polymer Science. An in-depth course in polymer chemistry and physics. Areas to be covered include polymerization mechanisms, methods of polymer analysis, mechanics of amorphous and crystalline polymers (including time- dependent mechanical behavior), thermodynamics and kinetics of polymer crystallization, and thermal and optical behavior of polymers. Prerequisite: BMS 701A/B. Traditional Lecture (3 credit hours)

BMS 711. Fundamentals of Ceramics. This graduate level course provides advanced information on ceramic compositions, processing methods, material properties, and applications. The topics will mirror those already covered in BMS 701, but they will be covered in greater depth and with emphasis on practical examples, commercially available products, and quantitative prediction of material properties. Prerequisite: BMS 701A/B. Traditional Lecture (3 credit hours)

BMS 712. Fundamentals of Metals. An advanced study of the principles governing the properties of metals. Principles of structure and their relationship to mechanical, thermal, electrical, optical and surface properties will be discussed. Prerequisite: BMS 701A/B. Traditional Lecture (3 credit hours)

BMS 713. Introduction to Electron Microscopy. After participation in this course, a student should be able to understand the theories and mechanics of electron microscopy, prepare specimens for EM observation, align the column and observe specimens with the EM, and produce high quality EM photomicrographs. The use of both the Scanning Electron Microscope (SEM) and the Transmission Electron Microscope (TEM) will be included. The theory and practical aspects of performing compositional analysis and mapping using the energy dispersive and wavelength dispersive x-ray spectrometers will be covered. At completion of the course, the student should be able to use the integrated SEM/EDS/WDS system to qualitatively determine composition, as well as understand the use of calibration to produce quantitative results. Use of the system for digital image acquisition and elemental mapping will be covered. The student will learn appropriate methods for preparing samples for observation in the SEM and TEM, and learn to recognize artifacts of sample preparation. The student will select a project for analysis and prepare a portfolio of photomicrographs and/or analyses demonstrating proficiency with either microscope, and with the integrated analytical equipment, appropriate to the project chosen. This course will meet for two lectures and 3-4 hours of lab each week. Prerequisite: BMS 703 or Consent of Instructor. Traditional Lecture (3 credit hours)
BMS 721. Polymer Processing. Methods used to fabricate polymer biomaterials will be presented and the parameters important to each method, the equipment and control mechanisms will be discussed with and the advantages and disadvantages of the different methods compared. Among the topics to be included are injection molding, extrusion, machining, reactive injection molding and pultrusion. Traditional Lecture (3 credit hours)

BMS 723. Degradation Mechanisms in Materials. The student will learn the various mechanisms of environmentally induced material degradation (e.g., oxidation and hydrolysis) for the three major classes of materials (metals, polymers, ceramics). The course will focus on the unique aspects of the biological environment which can alter conventional degradation mechanisms. Traditional Lecture (2 credit hours)

BMS 724. Electrochem & Corrosion of Implant Mat. This course on electrochemistry/corrosion will provide a detailed description of the electrochemical kinetic and thermodynamic processes that govern corrosion. Particular attention will be given to the metals and alloys systems used in current implant devices. Traditional Lecture (3 credit hours)

BMS 725. Environmntlly Asstsd Fract of Implnt Mat. One of the principal failure mechanisms of metallic implants is environmentally assisted fracture (EAF). EAF includes the mechanisms of stress corrosion cracking (SCC) and corrosion fatigue (CF). The synergistic interaction of stress and corrosion will be discussed with particular attention to implant alloy systems. The role of EAF in the failure of other material systems (e.g., polymers) will also be discussed. Traditional Lecture (2 credit hours)

BMS 727. Surface Science. The material interface represents the single-most important aspect of a material in the determination of the host response. The student will learn about the basic elements of surface characterization and the various physio-chemical phenomena that govern their properties. The theories of surface interactions with the biological environment will be discussed. Also covered, will be methods for altering surface properties. Traditional Lecture (3 credit hours)

BMS 728. Failure Analysis of Medical Implants. This is an advanced graduate level course in which students will learn the protocol and will begin practicing the practical skills necessary to analyze failures of medical implants and prostheses following in vitro testing or clinical use. A brief review of structure, mechanical and electrochemical properties of materials used for biomedical applications will be provided. Methods used to determine appropriate material characteristics, such as grain structure, secondary phases, pores, inclusions, and mechanical and corrosion properties will be covered. Failures of metallic, polymeric, and ceramic materials will be analyzed with emphasis on methods for specimen cleaning and preservation, visual inspection, documentation, and optical and electron microscopy techniques. Prerequisite: BMS 701A/B and BMS 702A/B or Consent of Instructor. Traditional Lecture (3 credit hours)

BMS 730. Grant Writing and Management. This graduate level course provides an introduction to acquiring and managing extramural funding for sponsored projects with emphasis on NIH research grants. The following topics will be covered: searching for sponsors, including an overview of NIH funding mechanisms; grant writing, including development of specific aims and hypothesis, writing a literature review, presenting preliminary data, describing methods and imelines, and making a budget; the submission and review process; revising unsuccessful applications; starting a new laboratory; and submitting progress reports and competing continuations. Students will write and revise a grant application during this course. Traditional Lecture (2 credit hours)

BMS 750. Special Topics in Biomedical Mat Sci. Treatment of specific subjects not dealt with fully in other courses. This course may cover any area of interest to the student(s) and at least one faculty member. Traditional Lecture (1-9 credit hours)

BMS 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 credit hours)


**TYPICAL COURSE OF STUDY – MASTER OF SCIENCE (MS)**

**YEAR 1 - FALL**

BMS 701A Fundamentals of Materials Science A 3
BMS 703A Experimental Methods in Materials Science A 1
BMS 708 Mathematics for Materials Study (For students without adequate preparation in mathematics) 4
ID 740 Statistical Methods in Research I (For students who do not enroll in BMS 708) 3
BMS 799 Thesis and Thesis Research 1 or 2

**YEAR 1 - SPRING**

BMS 701B Fundamentals of Materials Science B 3
BMS 702A Fundamentals of Biomaterials A 3
BMS 703B Experimental Methods in Materials Science B 1
ID 709 Responsible Conduct in Research 1
BMS 799 Thesis and Thesis Research 1

**YEAR 2 - SUMMER**

BMS 799 Thesis and Thesis Research 9

**YEAR 2 - FALL**

BMS 702B Fundamentals of Biomaterials B 3
ID 740 Statistical Methods in Research (if not already taken) 3
BMS 799 Thesis and Thesis Research 1-9
Elective TBA

9
Elective courses will be chosen from the courses offered in the Department, courses offered by other UMMC Graduate Departments, and/or courses offered in conjunction with the School of Engineering at the main campus of the University of Mississippi. For M.S. students, these electives will usually include at least one of the material-specific courses (BMS 710, BMS 711, or BMS 712). Courses offered by other schools may be included with approval of the student’s advisor, the Director of the Graduate Program, and the Dean of the School of Graduate Studies in the Health Sciences. Upon recommendation of the student’s advisor, one or more off-campus internships may be required, for which the student will receive academic credit as BMS 750 (Special Topics in Biomedical Materials Science). Such internships will be individually arranged to meet the goals of the research and plan of study for the student.

**TYPICAL COURSE OF STUDY – DOCTOR OF PHILOSOPHY (PhD)**

Students in the Ph.D. program will select their coursework in consultation with the advisor and advisory committee and will usually be required to include the following in their coursework selection, if they have not previously been included in the M.S. program:

- ID 715  Teaching in Higher Education
- BMS 703A/B  Experimental Methods in Materials Science A/B
- BMS 710  Fundamentals of Polymer Science
- BMS 711  Fundamentals of Ceramics
- OR
- BMS 712  Fundamentals of Metals
- BMS 728  Failure Analysis of Medical Implants
- BMS 730  Grant Writing and Management

Students must have taken and passed ID 714 (Professional Skills for Graduate Students and Postdoctoral Fellows), usually taken in the year prior to the awarding of the degree.

For students being admitted from another M.S. program or directly from a B.S. program, a typical course of study might be as follows (Please note that many elective courses may only be offered in alternate years):

| YEAR 1 - FALL | BMS 701A  | Fundamentals of Materials Science A  | 3 |
|               | BMS 703A  | Experimental Methods in Materials Science A | 1 |
|               | BMS 708   | Mathematics for Materials Study (For Students without adequate preparation in mathematics) | 4 |
|               | ID 740    | Statistical Methods in Research I (For Students not enrolled in BMS 708) | 3 |
|               | BMS 798   | Dissertation and Dissertation Research | 1 or 2 |

| YEAR 1 - SPRING | BMS 701B | Fundamentals of Materials Science B | 3 |
|                 | BMS 702A | Fundamental of Biomaterials A | 3 |
|                 | BMS 703B | Experimental Methods in Materials Science B | 1 |
|                 | ID 709   | Responsible Conduct in Research | 1.5 |
|                 | BMS 798  | Dissertation and Dissertation Research | 9 |

| YEAR 2 - SUMMER | BMS 798 | Dissertation and Dissertation Research | 9 |

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
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Similar courses taken at other universities in pursuit of the MS may be considered for substitution on a case-by-case basis. Students entering the program having received an MS degree at another university or who have taken graduate level courses as a part of a BS degree program may submit information about coursework that may be eligible for transfer to partially fulfill requirements for coursework toward the PhD. The courses may complement or substitute for courses in the BMS program. Up to 15 semester hours may be transferred with the approval of the student's advisor, the Director of the Graduate Program and the Dean of the School of Graduate Studies in the Health Sciences. Students entering directly from the MS program in the department will have taken a majority of their core courses previously and will rather begin taking elective courses in the area of specialization in their first semester.

For students being admitted after having completed their MS degree at UMMC, a typical course of study might be as follows (Please note that many elective courses may only be offered in alternate years):

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<tr>
<td>BMS 798</td>
<td>Dissertation and Dissertation Research</td>
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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
YEAR 3+ - SPRING

<table>
<thead>
<tr>
<th>Electives</th>
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<tbody>
<tr>
<td>BMS 798  Dissertation and Dissertation Research</td>
<td>1-9</td>
</tr>
</tbody>
</table>

Among other electives from outside the department that are available to interested students are the following:

- ID 767  Fundamental Histology and Cell Biology  3
- CHS 720  Essentials of Pathophysiology  3
- CHS 728  Histopathology  3
- BIOCH 742  Experimental Methods in Molecular Biology  3

Elective courses will be chosen from the courses offered in the Department, courses offered by other UMMC graduate departments, and/or courses offered in conjunction with the School of Engineering at the main campus of the University of Mississippi. Courses offered by other schools may be included with approval of the student’s advisor, the Director of the Graduate Program, and the Dean of the School of Graduate Studies in the Health Sciences. Upon recommendation of the student’s advisor, one or more off-campus internships may be required, for which the student will receive academic credit as BMS 750 (Special Topics in Biomedical Materials Science). Such internships will be individually arranged to meet the goals of the research and plan of study for the student.

BIOMEDICAL SCIENCES PROGRAM

MASTER OF SCIENCE IN BIOMEDICAL SCIENCES

The School of Graduate Studies in the Health Sciences at the University of Mississippi Medical Center offers a Master of Science degree in Biomedical Sciences. The degree program is designed to meet the needs of several groups of students:

- Those seeking to broaden their scientific background prior to application to, or entry into, professional or graduate school,
- Those interested in teaching at the high school or junior college level,
- Those interested in improving their knowledge base prior to entering into governmental service.

The MS in Biomedical Sciences program requires a minimum of 30 credit hours beyond a BS or BA degree. A typical course of study for students interested in professional or graduate school is shown below. To be eligible for graduation, students must maintain a GPA of 2.8 or higher or a weighted numerical average greater than or equal to 75%.

**CORE COURSES**

<table>
<thead>
<tr>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ID 770</td>
<td>Evidence Based Clinical Research I</td>
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<tr>
<td>ID 768</td>
<td>Essentials of Anatomy or Biomedical Elective</td>
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<tr>
<td>ID 727</td>
<td>Current Issues in Biomedical Research and Translational Medicine</td>
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<td>BIOCH 704</td>
<td>Fundamental Biochemistry</td>
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**BIOMEDICAL SCIENCES TRACK:**

Gregory V Chinchar, PhD, Program Coordinator

Faculty: Current members of the graduate faculty.

PLAN OF STUDY

**YEAR 1 - FALL**

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>PHYSIO 725</td>
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<tr>
<td><strong>ID 767</strong></td>
<td>Fundamental Histology and Cell Biology</td>
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<td><strong>ID 770</strong></td>
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**YEAR 1 - SPRING**

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<td><strong>ID 727</strong></td>
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</tr>
<tr>
<td>ID 768</td>
<td>Essentials of Anatomy</td>
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** Core courses required for graduation**

For students wishing additional study in a particular discipline, elective courses may be substituted in place of non-core courses. These students should consult the Director of the relevant graduate program and the Director for the MS-Biomedical Sciences program for alternative study plans.
MATERNAL-FETAL MEDICINE TRACK
Michelle Y. Owens, MD, Director

FACULTY

Associate Professors:
Michelle Y. Owens, MD
Sandip Sawardecker, MD

Assistant Professors:
Kedra Wallace, PhD

A special course of study has been created to enable completion of a master degree by obstetrician-gynecologists admitted to the UMC Department of Obstetrics and Gynecology's maternal-fetal medicine subspecialty fellowship program. Admission to the master degree program is limited strictly to OB-GYN physicians accepted to undertake this three-year American Board of Obstetrics and Gynecology-certified fellowship program located within the Division of Maternal-Fetal Medicine at the University of Mississippi Medical Center. It is the first program of its kind in the United States, begun in 1997. A minimum of 30 semester hours of study is undertaken during the three years of the fellowship program, culminating in the successful completion of a thesis presentation and defense. In addition to completion of two courses in biostatistics (ID 717) and genetics (MFM 717), fellows will complete the following:

MFM 606. ANTENATAL DIAGNOSIS- FETAL THERAPEUTICS & SEMINAR IN MATERNAL-FETAL MEDICINE I. (5 semester hours) This is a supervised course with extensive instruction in the utilization of basic and advanced targeted sonography for the evaluation of fetal and maternal pregnancy disorders. Included is an introduction to basic invasive fetal evaluation via amniocentesis, chorion villus sampling, placental biopsy, and percutaneous umbilical blood sampling. Limited to MD postgraduates who have completed a residency in obstetrics and gynecology and are presently fellows in the maternal-fetal medicine fellowship training program. A weekly tutorial/seminar is conducted on topics in maternal-fetal medicine. (Lecture/ Laboratory)

MFM 607. ANTENATAL DIAGNOSIS- FETAL THERAPEUTICS & SEMINAR IN MATERNAL-FETAL MEDICINE II. (5 semester hours) This is an advanced course of continuing supervised instruction in advanced obstetric ultrasound. Enrollment is limited to MFM fellows as are all courses in this program. It includes seminar/tutorial systematically reviewing one half of the major topical areas in maternal-fetal ultrasound. A weekly tutorial/seminar is conducted on topics in maternal-fetal medicine. (Lecture/ Laboratory)

MFM 608. ANTENATAL DIAGNOSIS- FETAL THERAPEUTICS & SEMINAR IN MATERNAL-FETAL MEDICINE III. (5 semester hours) This is a continuation of the two other antenatal diagnosis courses with other topics in maternal-fetal medicine discussed over a 3 year curriculum. The same limitation of enrollment to fellows currently in the maternal-fetal medicine training program is applied to this and all courses in this degree program. Supervised instruction with expansion of expertise and knowledge into all fetal organ systems and fetal therapy via intrauterine transfusion or drug therapy is addressed. (Lecture/ Laboratory)
MFM 609. ANTENATAL DIAGNOSIS-FETAL THERAPEUTICS & SEMINAR IN MATERNAL-FETAL MEDICINE IV. (5 semester hours) The fourth course in this series continues seamlessly with the other three in the series, limited to MFM fellows in our postgraduate program. Major topical areas in maternal-fetal ultrasound are considered with continuing supervised clinical instruction. A weekly tutorial/seminar is conducted on topics in maternal-fetal medicine (3 year curriculum to topics and readings). (Lecture/Laboratory)

MFM 610. THESIS WORK & SEMINAR IN MATERNAL-FETAL MEDICINE V (1 semester hour) Closely directed supervision of thesis research project and weekly participation in MFM seminar series that is part of the three-year curriculum in the subspecialty. Limited to MFM fellows enrolled in our postgraduate program. (Thesis/Dissertation)

MFM 611. THESIS WORK & SEMINAR IN MATERNAL-FETAL MEDICINE VI (1 semester hour) Closely directed supervision of thesis research project and possibly other with weekly participation in the MFM seminar tutorial series that is part of the three-year curriculum in the subspecialty. Limited to MFM fellows enrolled in our postgraduate program. (Thesis/Dissertation)

MFM 612. MFM RESEARCH METHODS & PROJECTS II (3 semester hours) This is a continuation of MFM611 which is a prerequisite with enrollment likewise limited to fellow enrolled in the maternal-fetal medicine training program. (Laboratory)

MFM 613. MFM RESEARCH METHODS & PROJECTS III (3 semester hours) Closely directed supervision of research projects that is limited to OBGYN fellows enrolled in the maternal-fetal medicine fellowship program. (Laboratory)

MFM 700. CLINICAL & BASIC RESEARCH METHODS & PROJECTS (3 semester hours) This is an introduction to the concepts necessary for the design, implementation, writing and presentation of quality clinical and basic science research projects. The focus is supervised undertaking of basic bench research techniques or a clinical research project necessary to undertake completion of the MFM fellow's thesis project for the Master's degree and for satisfying requirements for board certification. It is limited to fellows enrolled in the maternal-fetal medicine. (Laboratory)

ID 709. RESEARCH ETHICS (1 semester hours) An interactive lecture course designed to provide an understanding of ethics in scientific research and the basic skills important for both oral and written scientific communication. (Lecture)

MFM 710. FUNDAMENTAL RESEARCH TOOLS AND METHODS. (3 semester hours) A course designed to introduce Maternal Fetal Medicine fellows to contemporary methods in molecular biology research. (Lecture)

MFM 717. SPECIAL PROBLEMS IN MEDICAL GENETICS. (3 semester hours) This is an advanced course emphasizing human biochemical genetics. Lectures cover topics such as isoenzymes, enzyme variation, hemoglobin (structure, chemical function, mutation, etc.), membrane and transport defects, inborn errors, etc. Students will be required to present one or two descriptive and critical seminars. Students will be expected to attend selected genetics lectures presented to the first and second year medical students in addition to other topics selected for MFM practitioners. Lecture and seminar (3 semester hours in the fall-General Requirement for all MFM Fellows). (Lecture)

MFM 799. THESIS AND THESIS RESEARCH (hours and credit TBA) (Thesis/Dissertation)

## PLAN OF STUDY

### YEAR 1 - FALL

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<thead>
<tr>
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<td>MFM 710</td>
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<td>MFM 606</td>
<td>Antenatal Diagnosis-Fetal Therapeutics &amp; Maternal-Fetal Medicine Seminar I</td>
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### YEAR 2 - FALL

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<td>MFM 607</td>
<td>Antenatal Diagnosis-Fetal Therapeutics &amp; Maternal-Fetal Medicine Seminar II</td>
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### YEAR 2 - SPRING

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<td>MFM 608</td>
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### YEAR 3 - SPRING

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<td>MFM Research Methods &amp; Projects III</td>
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<td>ID 709</td>
<td>Responsible Conduct in Research</td>
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</table>
CLINICAL ANATOMY PROGRAM

Ranjan Batra, PhD, Director

FACULTY

Professor Emeritus:
Duane E. Haines, PhD

Professors:
Elise P. Gomez-Sanchez, PhD
Michael N. Lehman, PhD
Rick C. S. Lin, PhD

Associate Professors:
Gene R. Barrett, MD
Ranjan Batra, PhD
Ron Caloss, DDS, MD

Assistant Professors:
Dongmei Cui, MD, PhD
Ryan D. Darling, PhD
Yuefeng Lu, PhD

The Program in Clinical Anatomy offers a MS in Clinical Anatomy and a Clinical Anatomy track in its PhD program, both of which are training the next generation of educators and scholars in the field. Both these programs are intended to train professionals to become master educators in anatomy, qualified to communicate anatomical knowledge to future personnel in the health professions. Students will learn the anatomical disciplines of Human Gross Anatomy, Histology (microanatomy), Neuroanatomy and Embryology, and will be trained in pedagogical skills. Masters students will be exposed to the clinical application of anatomy and will obtain research experience related to clinical anatomy or anatomy pedagogy. Doctoral students who successfully pass their qualifying examinations will do a dissertation project either in the pedagogical methods of teaching anatomy, which may include the development of new methods, or in the clinical applications of anatomy. Upon graduation, Masters students will be prepared to teach anatomy in a variety of environments including community colleges and other undergraduate institutions, and secondary schools. Students with this degree will have a distinctive background, including strong communication skills that will also position them well for applications to professional schools such as those of Dentistry, Medicine and other Health Sciences. The PhD program will, in addition, train students to teach at the postgraduate level and to do research in Clinical Anatomy or the teaching of Anatomy.

ANAT 700. Fundamentals of Gross Anatomy. A study of the human body with an emphasis on the head, neck and trunk. This course incorporates lectures and a dissection laboratory. Although listed as a Spring Semester course, a component is taught at the start of the Fall Semester. Traditional Lecture (9 credit hours)

ANAT 701. Fundamental Micro and Devel Anatomy. A study of the microscopic structure and function of cells, tissues and organs. Traditional Lecture (6 credit hours)

ANAT 703. Seminar Writing Biomedical Research Paper. Basic elements of writing, such as sentence structure, and the traditional sections of the biomedical research paper (Introduction, Materials and Methods, Results, and Discussion) are taught through the use of examples and exercises. Traditional Lecture (1-2 credit hours)

ANAT 711. Gross Anatomy. A study of the human body utilizing dissection. Traditional Lecture (12 credit hours)

ANAT 713. Histology and Cell Biology. A study of the structure and function of cells, tissues and organs. This 6-semester-credit course runs through Fall and Spring Semesters, and students must register for 3 credits in each semester to obtain credit. Traditional Lecture (3 credit hours)

ANAT 715. Neurobiology. A study of the human nervous system Traditional Lecture (6 credit hours)

ANAT 716. Developmental Anatomy. A study of the embryonic development of the human body. Traditional Lecture (2 credit hours)

ANAT 717. Clinical Anatomy Research Rotations. Research with up to three faculty associated with the Clinical Anatomy Program. Students will be exposed to the research and methods used by individual faculty. Each rotation requires a brief paper to be written by the student. Traditional Lecture (1-9 credit hours)

ANAT 722. Topics in Contemporary Anatomy. A seminar course in which students will take turns presenting the contents of assigned scientific papers or other readings dealing with research in anatomy or related topics. Traditional Lecture (1-2 credit hours)

ANAT 730. Teaching Practicum in Gross Anatomy. Advanced students will: 1) develop skills required to teach gross anatomy to professional and graduate students in a laboratory venue and 2) solidify his or her command of the subject. As part of the course, students will gain experience in the construction and administration of written and laboratory exams. Prerequisite: Anatomy 700 or 711 or equivalent. Traditional Lecture (6 credit hours)

ANAT 731. Teaching Practicum in Histology and Cell. Advanced students will 1) develop skills required to teach histology and cell biology to professional and graduate students in both a laboratory and lecture venue and 2) solidify his or her command of the subject. As part of the course, students will gain experience in the construction and administration of written and laboratory exams. Prerequisite: Anatomy 701 or 713 or equivalent. This 3-credit course runs through Fall and Spring Semesters, but students register for all 3 credits in the Fall Semester Traditional Lecture (1-3 credit hours)

ANAT 733. Teaching Practicum in Neurobiology. This course provides the advanced student with a mechanism for (1) developing the skills necessary to teach neurobiology to professional and graduate students and (2) solidifying his or her knowledge of neurobiology. Students receive instruction in current educational approaches, and engage in interactive learning activities with students enrolled in ANAT
615/715. Students in ANAT 733 gain experience in guiding group discussions, and obtain training in content delivery in a laboratory setting. The course will prepare students to play a critical role in enabling professional students to bridge the foundations in basic science to the health-related professions. Prerequisite: Anatomy 715 or equivalent. Traditional Lecture (3 credit hours)

**ANAT 740. Readings in Contemporary Anatomy.** A program of reading or reading and research assigned by a faculty advisor according to specific interests of the student. A written report of the work may be required of the student during or at the end of the semester. Traditional Lecture (1-9 credit hours)

**ANAT 742. Introduction to Problems in Clinical Anatomy.** Students will read, discuss and give presentations about papers related to the teaching of clinical anatomy, and will attend selected grand rounds in clinical departments participating in this program. They will meet with members of the Clinical Anatomy faculty who are actively involved in research or scholarship to learn about the activities of program faculty. They will also be introduced to educational scholarship. Traditional Lecture (2 credit hours)

**ANAT 743. Skills Dev. in Clinical Anatomy I.** Students will read, discuss and give presentations about papers on the teaching of clinical anatomy. In addition, guest lecturers will give students the opportunity to learn from anatomists who are master educators. Finally, students will practice giving lectures on topics in anatomy and will have a supervised lecturing experience to a large audience. Traditional Lecture (1-3 credit hours)

**ANAT 744. Skills Dev. in Clinical Anatomy II.** Students will read, present and discuss papers on the teaching of clinical anatomy. They may also attend grand rounds in participating clinical departments and discuss their experiences in class. Finally, as a capstone experience for their research/scholarship project (ANAT 745 Clinical Anatomy Research Project), they will present a half-hour seminar describing their project to all students and participating faculty in the Program. Traditional Lecture (1-3 credit hours)

**ANAT 745. Clinical Anatomy Research Project.** In consultation with their mentor and the Program Director, the student will participate in a research/scholarship project focused in an area of clinical anatomy or anatomical education. Traditional Laboratory (1-9 credit hours)

**ANAT 750. Thesis Research Proposal.** An advanced course in which master’s students prepare a research proposal for their thesis research project. Traditional Thesis (1-9 credit hours)

**ANAT 760. Dissertation Research Proposal.** An advanced course in which doctoral students will either prepare for their qualifying exams or prepare for and defend a research proposal for their dissertation research project (Independent Study) (1-9 semester hours)

**ANAT 790. Thesis and Thesis Research.** Traditional Thesis (1-9 credit hours)

**ANAT 798. Dissertation and Dissertation Research.** Traditional Dissertation (9 credit hours)

### PLAN OF STUDY

**PH.D.: CLINICAL ANATOMY TRACK**

The first two years of coursework are shown below. In the summer semester at the start of the third year, students sit for their qualifying exams. Successful students then continue to do research with a chosen mentor in the Clinical Anatomy Program. In the Spring Semester of the third year, they take **ID 714 Professional Skills for Graduate Students**; they are otherwise involved in dissertation research (ANAT 798) until they graduate.

#### YEAR 1 - FALL

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<td>Histology &amp; Cell Biology</td>
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<td>ANAT 716</td>
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#### YEAR 1 - SPRING

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<tbody>
<tr>
<td>ANAT 715</td>
<td>Neurobiology</td>
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<td>Histology &amp; Cell Biology</td>
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<td>ANAT 717</td>
<td>Clinical Anatomy Research Rotations</td>
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<td>ANAT 742</td>
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#### YEAR 2 - FALL

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<tbody>
<tr>
<td>ANAT 730</td>
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<td>ANAT 731</td>
<td>Teaching Practicum In Histology and Cell Biology</td>
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<td>ANAT 717</td>
<td>Clinical Anatomy Research Rotations</td>
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#### YEAR 2 - SPRING

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<td>ANAT 731</td>
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### PH.D.: ANATOMICAL SCIENCES TRACK

The first two years of coursework are shown below. In the summer semester at the start of the third year, students sit for their qualifying exams. Successful students then continue on to do research with a chosen mentor in the Clinical Anatomy Program. In the Spring Semester of the third year, they take **ID 714 Professional Skills for Graduate Students**; they are otherwise involved in dissertation research (ANAT 798) until they graduate.

<table>
<thead>
<tr>
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<tr>
<td>ANAT 715</td>
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<td>ANAT 722</td>
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* Anat 733, Teaching Practicum in Neurobiology, may be taken rather than Anat 731
**Every other year, students take Anat 703, Seminar in Writing Biomedical Research Papers instead of Anat 722.
**MS IN CLINICAL ANATOMY**

**CORE COURSES**

**YEAR 1 - FALL**
- ANAT 701  Fundamental Microscopic and Developmental Anatomy  6
- ANAT 711  Gross Anatomy  12

**YEAR 1 - SPRING**
- ANAT 715  Neurobiology  6
- ANAT 742  Introduction to Problems in Clinical Anatomy  2
- ID 715  Teaching in Higher Education  3

**YEAR 2 - SUMMER**
- ANAT 745  Clinical Anatomy Research Project  9

**YEAR 2 - FALL**
- ANAT 744  Skills Development in Clinical Anatomy I  1
- ANAT 745  Clinical Anatomy Research Project  1-3
- Elective  1-9

**YEAR 2 - SPRING**
- ANAT 744  Skills Development in Clinical Anatomy II  1
- ANAT 745  Clinical Anatomy Research Project  1-3
- Elective  1-9

**ELECTIVE COURSES (TWO OF THE FOUR ARE REQUIRED IN YEAR 2)**
- ANAT 730  Teaching Practicum in Gross Anatomy (Fall)  6
- ANAT 731  Teaching Practicum in Histology and Cell Biology (Fall and Spring, 2-1)**  3
- ANAT 733  Teaching Practicum in Neurobiology (Spring)  3
- PHYSIO 725  Fundamental Physiology (Fall and Spring, 4-4)**  8

* Number of hours for the Research project is at least 1, and sufficient to ensure the student is enrolled full time.
** Electives are selected from the list above. Semester hours depend on the elective selected.
*** Numbers in parentheses indicate approximate credit hours of work in each semester. For ANAT 731, registration is for 3 hours in Fall, but course extends through Spring. For PHYSIO 725, registration is for 4 hours in Fall and in Spring.

**CLINICAL HEALTH SCIENCES PROGRAM**

(The Clinical Health Sciences Program is no longer accepting new graduate students.)

Sydney Murphy, PhD, Interim Director

**FACULTY**

**Professors:**
- Adah Felix, PhD
- Jessica Bailey, PhD
- Kaye Bender, PhD
- Hamed A. Benghuzzi, PhD
- David Dzielak, PhD
- Fazlay Faruque, PhD
- David G. Fowler, PhD
- Elgenaid Hamadain, PhD
- Ann Peden, PhD
- Stacy Hull-Vance, PhD
- LaToya Richards-Moore, PhD
- Denise Krause, PhD
- Michelle Tucci, PhD

**Associate Professors:**
- Robin W. Rockhold, PhD
- Libby M. Spence, PhD
- Donna Sullivan, PhD
- Mark D. Weber, PhD
- William R. Woodall, EdD
- Amy Sullivan, PhD

**Assistant Professors:**
- Ellen Jones, PhD
- Mary G. Tan, PhD

The graduate program in Clinical Health Sciences makes available to qualified students an organized educational framework that offers preparation for research in clinically significant areas, requiring a strong background knowledge in principles of clinical health sciences. Taking advantage of the Medical Center’s extensive resources, this program will help give students the working knowledge and tools necessary to conduct quality, independent research. The program was developed for students who have already completed entry-level requirements in a health profession or BS degree and experience in a health-related area. A student must have a minimum of the BS degree from an accredited institution. The program of study and research will lead the student to a better understanding of health care systems and advanced technologies in clinical laboratory sciences. A student’s course work combines knowledge of the scientific foundations of...
practice and scientific methodology. Advanced preparation of study in a clinical health systems track and a clinical laboratory sciences track is available. The primary goal of the graduate program in Clinical Health Sciences is to develop health care experts who can conduct basic or applied research on clinically significant problems related to health care. Related objectives are to foster the spirit of interdisciplinary cooperation among clinical practitioners; to provide highly qualified graduates who can teach in health professional schools or fill leadership roles in organizations, industry or governmental agencies as related to health care; and to develop a cadre of researchers who can address contemporary problems in the delivery of health care.

CHS 701. Biostatistics. General introduction to descriptive and inferential statistics: techniques and principles for describing data, designing research, analyzing data and principles of statistical analysis. This course covers basic statistical methods such as relative risk, number needed to treat, chi-square, t-tests, and linear regression. An emphasis is placed on describing treatment effects with 95% confidence intervals. Traditional Lecture (3 credit hours)

CHS 702. Biostatistical Modeling. This course expands on topics covered in the first modeling course. This class also covers other topics such as survival analysis and factor analysis and addresses problems that arise during research including dissertation research. Traditional Lecture (3 credit hours)

CHS 703. Clinical Decision Making. This course expands on topics covered in the first modeling course. This class also covers other topics such as survival analysis and factor analysis and addresses problems that arise during research including dissertation research. Prerequisite: Permission of Instructor. Traditional Lecture (3 credit hours)

CHS 704. Research Methods I. This course is a survey of qualitative, quantitative and clinical research methodology including techniques and procedures for research design, data collection, data analysis, and data presentation. Prerequisites: CHS 601/701 Biostatistics or Permission of Instructor. Prerequisite: CHS 701 Traditional Lecture (3 credit hours)

CHS 705. Research Methods II. A continuation of CHS 704 Research Methods I. The main focus of this course is to provide practical exposure to hypothesis or question driven research, literature reviews, tools needed to write a dissertation proposal, and organization of the research report. Prerequisites: CHS 704, CHS 701, CHS 702, CHS 720, CHS 706 or Permission of Instructor. Traditional Lecture (3 credit hours)

CHS 706. Philosophy of Science. A survey of general research design principles and methods related to health services research; philosophy of science method, language of research, evaluation of existing scientific literature, empirical research methodologies, experimental approaches, and qualitative research designs. Traditional Lecture (3 credit hours)

CHS 709. Qualitative Research Designs. An examination of qualitative designs most applicable to the study of health care. The course focuses on essential aspects of qualitative research designs, including identification of researchable questions, subject protection, interviewing and transcribing, and analysis methods. Traditional Lecture (3 credit hours)

CHS 716. Advanced Laboratory Diagnostics. The course is designed as a general overview of new and developing advanced laboratory techniques. The major areas are: advanced chromatography (GC and HPLC), immunology techniques (ELISA, Western Blot), nucleic acid and amplification protocols (PCR, RT-PCR, Northern/Southern Blot Hybridization, restriction enzyme digest analysis, etc.) and a discussion of clinical virology as it applies to the development of diagnostics in the laboratory. The course is intended to offer students expertise in emerging techniques in the laboratory and an understanding of the rapid technical changes occurring in clinical, research, and industrial laboratory settings. Traditional Lecture (3 credit hours)

CHS 717. Directed Research. The objective of this course is provide the students with specific research skills not available in track required courses. This course may cover any area of interest to the student(s). It is intended for students in post qualifying exam phase and Program Recommendation Required Traditional Lecture (1-9 credit hours)

CHS 720. Essentials of Pathophysiology. An introduction in the physiology and biological manifestations of diseases. Topics to be covered will include organ dynamics, inflammation, healing and repair, immunity, and neoplasia. Traditional Lecture (3 credit hours)

CHS 721. Advanced Pathophysiology. This course is designed to study how alterations in structure (anatomy) and function (physiology) disrupt the human body as a whole. Emphasis will be placed on how the human body uses its adaptive powers to maintain steady state. Prerequisite: CHS 720 Essentials of Pathophysiology. Traditional Lecture (3 credit hours)

CHS 722. Problems in Pathophysiology. A course designed to acquaint students with field-oriented problems in pathophysiology. Prerequisite: CHS 720 Essentials of Pathophysiology Traditional Lecture (1-9 credit hours)

CHS 723. Pathophysiological Phenomena. A focused review of specific pathophysiological phenomena (e.g. pain, inflammation, wound healing) and evaluative criteria used to answer research questions. Students present and evaluate current research on selected topics. Required for the biological/physiological focus. Traditional Lecture (3 credit hours)

CHS 724. Pharmacological Considerations in Health. An overview of the reactions of the body to medications introduced under selected conditions encountered by health practitioners Traditional Lecture (3 credit hours)

CHS 725. Basic Biomedical Microbiology. Emphasis and content to be arranged. Traditional Lecture (3 credit hours)

CHS 726. Health Care Prof in Underserved Areas. This course provides an in depth analysis of health care management, delivery and recruitment of practitioners for rural and underserved communities. The focus will be on issues unique to Mississippi in the areas of economics, policy decision, practice management and psychosocial aspects of rural health practice. Traditional Lecture (1-9 credit hours)

CHS 728. Histopathology. A study of the microscopic and functional changes in selected tissues and organ systems due to injuries and/or diseases, incorporating a review of the normal structure and functions of eukaryotic cells, the four basic tissues and the relevant organ systems. The proposed etiologies and pathogenesis of the selected diseases will be considered. Traditional Lecture (3 credit hours)

CHS 729. Health Systems Phenomena. A focused review of specific health systems phenomena and evaluative criteria used to answer research questions. Students present and evaluate current research on selected topics. Prerequisite: CHS 701 and CHS 720 Traditional Lecture (3 credit hours)
**CHS 740. Biomedical Ethics and Health Law in CHS.** An introduction to morality, ethics, and the law. Principles of biomedical ethics and health law resources are used to analyze current problems and dilemmas arising between patients and the health care system. Promotion of quality of health care, patient access to care, and liability of health care professionals and institutions form the basis for reading and writing assignments and group discussions. Traditional Lecture (3 credit hours)

**CHS 741. Medical Sociology.** This course will examine how socio-cultural and demographic factors influence utilization of health care resources. Specifically, this course will deal with ethical issues surrounding access and care; barriers to quality care; and variations in definitions of what it means to be ill and healthy (e.g., epidemic of health). This will include multi-cultural issues associated with access to quality care. In addition to the above, this course will explore various sociological theories and methodologies used in the analysis of health care data. Traditional Lecture (3 credit hours)

**CHS 750. Health Systems Management.** Designed to provide an analysis of the health care delivery system including organizational, delivery, financing, and integrative aspects among the various delivery/policy sectors. Major concepts and topics will include managerial, social, behavioral, and economics. Utilization of case studies will be a major course direction. Traditional Lecture (3 credit hours)

**CHS 759. Geo Info Sys in Healthcare & Epidemiolgy.** This course combines an overview of the general principles of GIS and analytical use of spatial information technology applicable for healthcare professionals. Traditional Lecture (3 credit hours)

**CHS 761. Topics in Health Informatics.** Health informatics topics, including the electronic health record, clinical information systems, healthcare policy analysis and development, technology and data standards, health information exchange and consumer health informatics. Course includes extensive reading and critical discussion of relevant professional research literature. Traditional Independent Study (3 credit hours)

**CHS 763. Alternative and Complementary Therapies.** This course will answer questions about kinds of alternative and complementary therapies, alternative healthcare providers, efficacy of various treatments, legalities and economics involved, and different cultural systems of healthcare. Traditional Lecture (3 credit hours)

**CHS 764. Biostatistical Comp Applic in Hlth Care.** This is a three hour lecture/lab course, which introduces the use of biostatistical computer packages available within the academic/clinical settings. The course covers the theory of biostatistical software package such as SPSS, SAS, MINITAB, and EXCEL. It provides students with skills needed to understand data management, manipulation and analysis. Students will acquire hands-on training and learn how to analyze, describe, visualize, and present data using statistical software. Traditional Lecture (3 credit hours)

**CHS 765. Decision Support Systems.** Design and development of decision support systems, with emphasis on use of knowledge management applications and decision analysis techniques. Design of artificial intelligence systems will be addressed. Online discussion and submission of assignments occurs weekly, with onsite class meetings at the beginning and end of the term. Online, Internet, or Web-based Lecture (3 credit hours)

**CHS 767. Clinical Vocabu & Classification Systems.** Addresses standardized clinical terminology, medical vocabulary standards, data mapping and natural language processing. Course covers classifications used for statistical reporting, as well as terminologies required for interoperability standards. Online discussion and submission of assignments occurs weekly, with onsite class meetings at the beginning and end of the term. Online, Internet, or Web-based Lecture (3 credit hours)

**CHS 775. Health Care Disparity.** This class will examine issues related to disparity in healthcare. Topics in this class will focus on disparity issues ranging from access to care, to quality of care, to differential health outcomes and treatment of vulnerable populations at both national levels and within the state of Mississippi. Education (e.g., skills training related to racial and ethnic health disparities), community issues, and research associated with disparate treatment will form the foundation for discussion and coursework. Traditional Lecture (3 credit hours)

**CHS 776. Rural Health Care.** This class will focus on the special needs rural healthcare providers face in providing care. Specific topics will focus on the use of technology (e.g., telehealth and telemedicine), recruitment of healthcare professionals, service delivery models, and policy (National and State) directed at improving care in rural areas. Traditional Lecture (3 credit hours)

**CHS 780. Special Topics.** Treatment of specific subjects not dealt with fully in other courses. This course may cover any area of interest to the student(s) and at least one faculty member. Traditional Lecture (1-9 credit hours)

**CHS 781. Special Problems.** This course offers special laboratory research projects on specific problems in clinical health sciences for advanced students. The didactic portion of the course will emphasize central concepts in the research area. Traditional Lecture (1-9 credit hours)

**CHS 782. Seminar.** This course is designed to provide the students with skills in how to survey the literature in areas of biomedical, biological, and outcomes research. Students are expected to select recent publications and be able to show mastery in presentation. Traditional Lecture (1-9 credit hours)

**CHS 790. Thesis Research Proposal.** An advanced course in which masters degree students prepare a research proposal for their thesis research project. Traditional Thesis (1-9 credit hours)

**CHS 791. Dissertation Research Proposal.** An advanced course in which doctoral students prepare a research proposal for their dissertation research project. Traditional Dissertation (1-9 credit hours)

**CHS 798. Dissertation and Dissertation Research.** Traditional Dissertation (1-9 credit hours)

**CHS 799. Thesis and Thesis Research.** Traditional Thesis (1-9 credit hours)

**PLAN OF STUDY**

Two tracks in Clinical Health Sciences are available. Students in the Clinical Health Systems Track must complete the following courses: CHS 703 Clinical Decision Making, CHS 709 Qualitative Research Designs, CHS 741 Medical Sociology, CHS 750 Health Systems Management, CHS 763 Alternative and Complementary Therapies, CHS 764 Biostatistical Computer Applications in Health Care. Students enrolled in the Clinical Laboratory Sciences Track must complete the following courses: CHS 703 Clinical Decision Making, CHS 716 Advanced Laboratory Diagnostics, CHS 721 Advanced Pathophysiology, CHS 724 Pharmacological Considerations in Health Practice, CHS 728 Histopathology, CHS 763 Alternative and Complementary Therapies.
YEARS 1 - FALL
CHS 701 Biostatistics 3
CHS 706 Philosophy of Science 3
CHS 720 Essentials of Pathophysiology 3

YEARS 1 - SPRING
CHS 702 Biostatistical Modeling 3
CHS 704 Research Methods I 3
CHS 723 Pathophysiological Phenomena 3
OR
CHS 729 Fundamentals of Health Systems Research 3

YEARS 2 - SUMMER
CHS 705 Research Methods II 3
CHS Elective 3

YEARS 2 - FALL
Clinical Health Systems Track Courses (choose any 4 courses) 12
OR
Clinical Laboratory Systems Track Courses (choose any 4 courses) 12

YEARS 2 - SPRING
CHS 740 Biomedical Ethics and Health Law in the Clinical Health Sciences 3
CHS Elective 3
Clinical Health Systems Track Course 3
OR
Clinical Laboratory Systems Track Course 3

YEARS 3+ - SUMMER
CHS Elective 3
CHS 791 Dissertation Research Proposal 3

YEARS 3+ - FALL
CHS 798 Dissertation and Dissertation Research 6

YEARS 3+ - SPRING
CHS 798 Dissertation and Dissertation Research 6

*Although the plan of study is designed by the individual student and a faculty member with closely matching research interests, this is a typical course of study for a full-time student in the Doctor of Philosophy in Clinical Health Sciences. A typical plan of study would differ for part-time students.

CLINICAL INVESTIGATION PROGRAM
MASTER OF SCIENCE IN CLINICAL INVESTIGATION
Betty L. Herrington, MD, Program Director
Joshua Mann, MPH, MD, PhD, Associate Program Director

Professors:
Kim Adcock, PharmD
Fredrick “Rick” Barr, MS, MD
Bettina Beech, DrPH, MPH
Lique Coolen, PhD
Robert M. Herndon, MD
Joey P. Granger, PhD
Alan E. Jones, MS, MD
Joshua Mann, MPH, MD, PhD
Gailen Marshall, MD, PhD
April Palmer, MD
Alan Penman, PhD
Richard Summers, MD

Associate Professors:
Michael Griswold, PhD
Betty L. Herrington, MD
Mario Sims, PhD

Assistant Professor:
Clinton Carroll, MS, MD
Sydney Murphy, MS, PhD
Aimee Parnell, MD
Kedra Wallace, MS, PhD
Nancy West, MS, PhD
The School of Graduate Studies in the Health Sciences at the University of Mississippi Medical Center offers a Master of Science degree in Clinical Investigation. The degree program is designed for clinical professionals and clinical scientists including faculty and resident physicians, fellows in training, dentists, nurses, pharmacists and other terminal degree clinical professionals. Successful graduates of the program will be expected to conduct independent and collaborative clinical studies in their special areas of practice and interest while holding positions as clinician-investigators in academic settings. The program will also serve as a formalized training program for participants seeking extramural career development support (K awards).

The program will emphasize specific training in three principle areas:

- Clinical Trials,
- Population/ Outcomes Research,
- Translational Human Studies.

The MS in Biomedical Sciences program requires a minimum of 30 credit hours beyond a BS or BA degree. A typical course of study for students interested in professional or graduate school is shown below. To be eligible for graduation, students must maintain a GPA of 3.0 or higher or a weighted numerical average greater than or equal to 80%.

**CORE COURSES**

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**Total** 14

**CLINICAL TRIALS TRACK:**

**PLAN OF STUDY**

**Year 1 - Fall**

- MSCI 710 Epidemiology I 3
- ID 740A Statistical Methods in Research I 3

**Total** 6

**Year 1 - Spring**

- ID 709 Responsible Conduct in Research 1
- ID 770 Evidenced Based Clinical Research 3
- MSCI 790 Grant and Scientific Writing 1
- *Elective TBD

**Total** 5+

**Year 2 - Fall**

- MSCI 791 Capstone Project 3
- *Elective TBD
- *Elective TBD

**Total** 3+

**Year 2 - Spring**

- MSCI 791 Capstone Project 3
- *Elective TBD
- *Elective TBD
- *Elective TBD

**Total** 3+

*Electives- Clinical Trials Track:

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<td>MSCI 742</td>
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<td>MSCI 740</td>
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<td>MSCI 732</td>
<td>Clinical Trials Applications</td>
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<td>MSCI 741</td>
<td>Mechanics of Ethical and Regulatory Issues in Clinical Research</td>
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**POPULATION/ OUTCOME RESEARCH TRACK:**

**PLAN OF STUDY**

**Year 1 - Fall**

- MSCI 710 Epidemiology I 3
- ID 740A Statistical Methods in Research I 3

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** Elective: TBD

** Electives - Patient/ Outcomes Track

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<td>ID 717 Special Topics in Biostatistics, Bioinformatics, and Epidemiology</td>
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<tr>
<td>MSCI 730 Perspectives in Multidisciplinary and Translational Research</td>
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<td>MSCI 731 Fundamentals of Population Health</td>
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** Translational Human Studies Track: Plan of Study

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** Electives - Translational Human Studies Track

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<tr>
<td>MSCI 711 Epidemiology II</td>
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<td>MSCI 722 Principles of Translational Research</td>
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<td>MSCI 720 Bench to Curbside: Principles of Collaborative Research</td>
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<tr>
<td>MSCI 721 Biomarkers, Bioimaging, and Bioinformatics</td>
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Program prerequisites:

- Applicants must hold a terminal doctoral degree (MD, PhD, DMD, etc.).
- Applicants should be in good standing within their department at the time of admission.

Application Deadline and Requirements: Applications must be received by **May 1** for those wishing to enroll in the fall semester; classes begin early to mid-August. However, students are encouraged to complete their applications as early as possible. Access to an online application form is available on the [School of Graduate Studies website](#).
• Applicants will be evaluated on the following:
  o Three letters of recommendation that must include:
    ▪ Letter of support from Division Chief or Departmental Chair
    ▪ Letter of support from research mentor
    ▪ Letter of recommendation
  o A personal statement which includes career goals, a brief description of research plan, and identification of research mentor
  o Applicant’s curriculum vitae
  o Mentor’s curriculum vitae
  o Transcripts from university granting terminal degree

Admission to the program will be competitively determined by the admissions committee and will evaluated on the quality of the science proposed, the commitment of the mentor of the career development of the candidate, and on the overall impact of the training program on the applicant’s career development.

MSCI 710. Epidemiology I. This course will introduces principles and methods of epidemiologic investigation. It will illustrate methods by which studies of the distribution and behavior of disease in a population can contribute to an understanding of etiologic factors, modes of transmission, and pathogenesis. It will introduce different types of study designs, including randomized trials, case-control and cohort studies, risk estimation and causal inferences. This is a “hands-on” class, with laboratory problems providing experience in epidemiologic methods and inferences, illustrating a common-vehicle epidemic; the spread of an infectious disease; epidemiological aspects of a noninfectious disease; vaccination; and health services evaluation; rates of morbidity and mortality; sensitivity and specificity; and life table methods. No auditors permitted. (3 credit hours)

MSCI 711. Epidemiology II. This course will present and illustrate key methods used in epidemiologic research at an intermediate level. Topics will include causal inference in epidemiology, additional study designs, measures of disease frequency and association, methods to assess and handle confounding and bias, and analysis and statistical modeling in epidemiologic studies. (3 credit hours)

MSCI 720. Bench to Curbside: Principles of Collaborative Research. This course will cover the guiding principles for conducting collaborative research and will present the perspectives of the fundamental research programs to show how translational sciences bridges them in a most effective fashion. (3 credit hours)

MSCI 721. Biomarkers, Bioimaging, and Bioinformatics. A survey course that provides the theoretical background with specific examples in genetics, immunology, endocrinology, orthopedics, neurology and cardiology for methods for developing, validating and utilizing biomarkers and bioimaging techniques. Discussion and demonstrations of the utility and methodology for utilization and collaboration with bioinformatics experts. (3 credit hours)

MSCI 722. Principles of Translational Research. This course will provide an overview of developing a translational research project and how to translate basic research findings into medical practice and meaningful health outcomes. (3 credit hours)

MSCI 723. Survey Design and Methodology. This course provides an introduction to the essential statistical methods of sample survey design and analysis. (1 credit hour)

MSCI 730. Perspectives in Multidisciplinary Clinical and Translational Research. This multidisciplinary course will introduce students to scientific methods used for clinical translational research. The course will stress the importance of multidisciplinary approaches to solving clinical questions and will incorporate multiple examples of research discoveries that were advanced through multidisciplinary collaborations. This course will emphasize a variety of research study designs and approaches that involve quantitative research methods to study clinically relevant research questions and problems. It will provide a perspective to help prepare students for more advanced research courses. (1 credit hour)

MSCI 731. Fundamentals of Population Health. This course will provides students with training in the language, theories, concepts, methods, measurement, analysis, and implementation of population health. (3 credit hours)

MSCI 732. Clinical Trials Applications. This course is an overview of all components necessary to develop and implement a clinical trial. (3 credit hours)

MSCI 740. Drug and Device Development Process. This course will explain the regulatory processes for drug and device development. (1 credit hour)

MSCI 741. Mechanics of Ethical and Regulatory Issues in Clinical Research. This course is designed to introduce students to the ethical and regulatory issues critical in the conduct of clinical research. Students will gain an understanding of the regulations and good clinical practice guidelines that govern research with the underlying goal being the acquisition of skills used by researchers to design and conduct quality research. (1 credit hour)

MSCI 742. Comparative Effectiveness Research. This course will provide the basic framework to learn about comparative effectiveness research and will include discussion on both clinical and health policy outcomes. (1 credit hour)

MSCI 790. Grant and Scientific Communication. An introduction to scientific writing. (1 credit hour)

MSCI 791. Capstone Project. Research and preparation of a thesis required to earn an MS degree. (3 credit hour)
The Department of Pharmacology and Toxicology offers a program leading to the PhD, with the primary objective of training individuals for a successful independent career in pharmacology, toxicology or a related biomedical science.

The field of Pharmacology is very broad and offers many research directions and opportunities. Curiosity, drive, and dedication allows students to receive diverse training yet focus on areas that are personalized to the individual's interests. The breadth of training of a PhD in Pharmacology opens a wide range of career options and employment opportunities in academic, governmental and industrial organizations. That objective is achieved through a combination of formal course work, independent study and both faculty-directed and independent research. Students are exposed to fundamental principles of pharmacology as well as current concepts related to mechanisms of actions of an array of different classes of drugs and modern research techniques.

The curriculum provides ample opportunities for students to improve their written and verbal communication skills and to develop skills in critical thinking, problem solving and experimental design. The department has 19 faculty with primary appointments and a number of adjunct faculty who represent the Departments of Psychiatry & Human Behavior, Medicine, Emergency Medicine, and the Cancer Institute. Research interests of the faculty are diverse and include the central and peripheral nervous systems, drug abuse, the cardiovascular system, endocrinology, toxicology, signal transduction, membrane transport, drug metabolism/biotransformation, protein-DNA interactions, DNA damage and repair, cancer chemotherapy, and drug development.

Multidisciplinary approaches ranging from whole animal to genomic, transgenic, proteomics, translational and bioinformatics techniques are used to investigate the genetic and molecular basis of human diseases. Departmental equipment includes electrophysiological instrumentation, fluorescence imaging, UV-Vis and laser spectrophotometers, fluorometers, gas and liquid chromatographic-mass spectrometry facilities, cell-culture facilities, and an extensive array of behavioral, cardiovascular, chemical, and biochemical instrumentation.

Admission to the program is competitive, and applicants with at least a baccalaureate degree are evaluated on the basis of undergraduate grades (particularly in science), Graduate Record Examination (GRE) scores and letters of recommendation. Financial assistance in the form of a stipend support and/or tuition scholarships may be available for full-time students accepted into the program.

A prerequisite for all courses is approval by the course director and the program director of the Department of Pharmacology and Toxicology. Graduate students outside the pharmacology program must also have approval of the program director of the program in which they are enrolled.

**PHARM 701. Seminar.** Students are required to (1) attend presentations by others (both faculty and students) participating in the course and (2) make an oral presentation related to their own research or an assigned topic. For students in the pharmacology program, participation in pharmacology journal club is a requirement of this course. Pharmacology students must also participate in seminar during the spring semester as a requirement for PHARM 702. Traditional Lecture (1-9 credit hours)

**PHARM 702. Recent Advances-Pharmacology & Toxicology.** This course comprises reading, informal presentation and discussion of topics in pharmacology, toxicology and related disciplines from the current scientific literature. Critical evaluation of experimental design, data analysis and interpretation are emphasized. Traditional Lecture (1-9 credit hours)

**PHARM 722. Pharmacology and Therapeutics.** Students are introduced to the principles underlying the use of pharmacological agents in medical practice. Concepts related to drug distribution, drug-receptor interaction and drug metabolism are considered. In addition, the mechanism of action, therapeutic effects, adverse side-effects and common clinical applications of various drugs and drug classes are presented through a combination of lectures and clinical correlations. Traditional Lecture (6 credit hours)

**PHARM 723. Mechanisms of Drug Action.** This course is offered in concert with Pharmacology and Therapeutics (PH722) and comprises assigned readings and discussions. Selected aspects of pharmacology are presented with emphasis on the mechanisms of drug action. Traditional Lecture (4 credit hours)

**PHARM 726. Fundamental Pharmacology.** A basic pharmacology course in which principles underlying the actions of drugs are presented, including pharmacokinetics, drug-receptor interactions, and drug metabolism. In addition, mechanisms of action, therapeutic effects, adverse effects and therapeutic indications are noted for major classes of drugs and for commonly used drugs within each class. Traditional Lecture (6 credit hours)
**PHARM 785. Principles of Modern Drug Design.** This course addresses the basic principles of the modern drug discovery and validation process, with emphasis on applications in cancer therapy. The course begins with the identification and characterization of disease-specific molecular targets using genetic and biochemical techniques. The second section describes the selection of lead drugs through high-throughput screening assays, combinatorial chemistry, and computer-assisted rational drug design. The final section covers preclinical and clinical trials and the potential use of database analysis to ensure that the drugs are safe and effective, and that the chosen therapeutic regimen will yield the best outcome for any given patient. Traditional Lecture (2 credit hours)

**PHARM 790. Special Topics in Pharmacology & Toxicology.** This course may cover any area of interest to at least one student and one faculty member. Traditional Lecture (1-9 credit hours)

**PHARM 792. Research in Pharmacology and Toxicology.** Students perform research in the laboratory of a faculty member. Students are required to make a 20-30 presentation concerning the rotation (including the general premise, experimental approach and results; the latter two may be actual or anticipated) to the general departmental faculty at the completion of the rotation. Traditional Lecture (1-9 credit hours)

**PHARM 798. Dissertation and Dissertation Research.** Design and performance of research leading to a Ph.D. Traditional Lecture (1-9 credit hours)

**PLAN OF STUDY**

**YEAR 1 - FALL**

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*Elective may be any 700 level course in any graduate program of interest to the student.
MICROBIOLOGY AND IMMUNOLOGY PROGRAM

Eva M. Bengten, PhD, Director
Richard O’Callaghan, PhD, Co-Director

FACULTY

Professors:
- Eva M. Bengten, PhD
- Richard O’Callaghan, PhD
- Victor Gregory Chinchar, PhD
- Donna C. Sullivan, PhD
- Larry McDaniel, PhD
- Edwin Swiatlo, MD, PhD
- Melanie R. Wilson, PhD

Associate Professors:
- Brian J. Akerley, PhD
- Mary Marquart, PhD
- Bo Huang, MD/PhD
- J. Christopher Meade, PhD
- D. Ashley Robinson, PhD
- Stephen Stray, PhD

Assistant Professors:
- Ritesh Tandon, PhD

The Department of Microbiology offers qualified students the opportunity to earn a PhD in microbiology with special emphasis in the areas of bacteriology, immunology, parasitology, or virology. The department emphasizes research opportunities with close relationships between students and faculty. Currently the department has 14 full time faculty and 13 graduate students. The low faculty-to-student ratio facilitates an exchange of ideas between students and faculty and enhances the student’s graduate training. The research environment includes seminars, lab meetings, and journal clubs. In addition to laboratory research under the direction of a faculty member, training includes formal course work, seminars, and journal clubs. Our core curriculum includes introductory courses in medical microbiology and biochemistry, and specialized graduate courses in virology, bacterial physiology and virology. Together these experiences aid the student in learning to critically read the scientific literature, and in developing proficiency and competence in scientific writing and public speaking, all of which are crucial for success in a scientific career.

MICRO 701. Medical Microbiology. The fundamentals of microbial physiology, genetics and immunology are presented with important bacterial, viral, parasitic and mycotic infections discussed from the standpoint of etiology, epidemiology, pathogenesis and laboratory diagnosis. Participation in laboratory exercises and small group sessions is required. Traditional Lecture (6 credit hours)

MICRO 702. Molecular and Cellular Virology. The students will learn fundamentals of viral replication and pathogenesis with emphasis on pertinent aspects of molecular biology. Traditional Lecture (3 credit hours)

MICRO 703. Seminar in Microbiology. Graduate students will prepare, present and attend weekly seminars. Traditional Lecture (1-9 credit hours)

MICRO 704. Research in Microbiology. Students participate in an on-going research project under the direction of a graduate faculty member. Traditional Laboratory (1-9 credit hours)

MICRO 707. Microbiology Laboratory Rotation. This course is designed to acquaint the student with ongoing research and research methodologies within the department. To accomplish this, the student will actively take part in ongoing research projects in one or two laboratories during the quarter. Traditional Laboratory (1-9 credit hours)

MICRO 708. Preparation-Instruction in Microbiology. The student will participate in the preparation of microbiological cultures and assist faculty in the teaching of the medical microbiology laboratory course. Traditional Lecture (3 credit hours)

MICRO 715. Special Topics in Microbiology. The course is designed to meet the special needs of individual students. Students who wish to learn more about a particular topic can arrange this course by discussing their need with their mentor. Traditional Lecture (1-9 credit hours)

MICRO 725. Bacterial Structure and Function. A study of bacterial physiology, anatomy and regulatory mechanisms. Traditional Lecture (3 credit hours)

MICRO 733. Experimential Immunology & Immunobiology. Theoretical and experimental applications of immunochemistry and immunobiology with major emphasis on in vivo and in vitro techniques used in investigating various aspects of humoral and cell-mediated immune responses. Traditional Lecture (3 credit hours)

MICRO 734. Advanced Immunology. An advanced course in which students discuss and critically review new research findings in various aspects of human and comparative immunology. Prerequisites: MICRO 701, MICRO 733. Traditional Lecture (1-3 credit hours)

MICRO 735. Advanced Virology. An advanced course in which students study, discuss and critically review research findings, concepts and laboratory techniques in the areas of viral biochemistry, molecular biology, tumor virology and virology. Prerequisites: MICRO 701, BIOCH 710 and MICRO 702. Traditional Lecture (1-3 credit hours)

MICRO 741. Fundamental Microbiology. Basic concepts in microbiology and immunology are presented and correlated with disease processes having a bacterial, viral, mycotic or parasitic etiology. The relevance of microbial pathogens in medicine is discussed. NOTE: this course is not offered to microbiology graduate students. Traditional Lecture (6 credit hours)

MICRO 747. Advanced Bacteriology. This course will offer small group sessions that address the mechanisms of infection and host defense. Prerequisite: MICRO 701 and MICRO 725. Traditional Lecture (2 credit hours)

MICRO 750. Research Proposal in Microbiology. An advanced course in which doctoral students prepare and defend a research grant proposal focused on their dissertation research. Traditional Lecture (1-3 credit hours)

MICRO 760. Medical Virology. This course is a section of the larger MEDICAL MICROBIOLOGY course (MICRO 701). Students must register for this course after contacting the course director. Traditional Lecture (3 credit hours)

MICRO 761. Medical Immunology. This course is a section of the larger MEDICAL MICROBIOLOGY course (MICRO 701). Students must register for this course after contacting the course director. Traditional Lecture (3 credit hours)
MICRO 762. Medical Bacteriology. This course is a section of the larger MEDICAL MICROBIOLOGY course (MICRO 701). Students OUTSIDE THE DEPARTMENT OF MICROBIOLOGY interested in bacteriology may register for this course after contacting the course director. Traditional Lecture (6 credit hours)

MICRO 763. Medical Parasitology/Mycology. This course is a section of the larger MEDICAL MICROBIOLOGY course (MICRO 701). Students OUTSIDE THE DEPARTMENT OF MICROBIOLOGY interested in parasitology/mycology may register for this course after contacting the course director. Traditional Lecture (1 credit hours)

MICRO 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 credit hours)

MICRO 799. Thesis and Thesis Research. Traditional Thesis (1-6 credit hours)

**PLAN OF STUDY**

**YEAR 1 - FALL**

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<td>MICRO 707</td>
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**YEAR 2 - FALL**

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**YEAR 3- SUMMER**

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<td>MICRO 798</td>
<td>Dissertation and Dissertation Research</td>
<td>3</td>
</tr>
</tbody>
</table>

**NEUROSCIENCE PROGRAM**

Michael N. Lehman, PhD, Director  
Donna Platt, PhD, Associate Director

**FACULTY**

*Professors:*

- Lique Coolen, PhD
- Elise Gomez-Sanchez, PhD, DVM
- Kim Gratz, PhD
- Michael N. Lehman, PhD
- Rick C. S. Lin, PhD
- James Lynch, PhD
- Paul May, PhD
- Thomas Mosley, PhD
- Ian A. Paul, PhD
- Grazyna Rajkowska, PhD
- Rob Rockhold, PhD
- James Rowllett, PhD
- Craig Stockmeier, PhD
- Matthew Tull, PhD
- Parminder Vig, PhD
- Susan Warren, PhD
- Wu Zhou, PhD
- Hong Zhu, MD, PhD

*Associate Professors:*

- Adel Maklad, PhD
- Ranjan Batra, PhD
- Lewis Chen, PhD
- Sean Didion, PhD
- Heather Drummond, PhD
- Laree Hiser, PhD
- Anna Lerant, MD
- Xiu Liu, M.D., PhD
- Jose Miquel-Hidalgo, PhD
- Donna Platt, PhD
- Jim Shaffery, PhD
- Kimberly Simpson, PhD
- Douglas Vetter, PhD
- Junming Wang, PhD
The Program in Neuroscience is a course of study leading to a PhD degree. It is an interdepartmental degree program with collaborating faculty from both basic and clinical departments at the University of Mississippi Medical Center. The objectives for the Program in Neuroscience are to educate and train individuals to become independent research investigators, teachers and mentors with a broad understanding of the neurosciences as well as focused training within a subset of the areas of study which comprise neuroscience. These objectives apply whether the individual’s ultimate career goal is to work in academic, government, industrial or administrative settings.

**CORE COURSES.** During the first year of study, students are required to take Foundations in Neuroscience (NSCI 701) which is an intensive overview of neuroscience coupled with analysis of relevant primary literature, Special Topics in Neuroscience course (NSCI 708) focusing on current issues of interest in neuroscience, and Fundamental Biochemistry (BIOC 704). They also engage in a series of up to six 4-5 week surveys of different research laboratories affiliated with the Program (NSCI790). During the second year of study, students are required to take Biostatistics (ID 740). Finally, in the second year of study, students engage in intensive Senior Laboratory Rotations (NSCI 791) which typically focus with the students’ planned dissertation laboratories. Throughout the first two years of study, students engage in professional skills development with courses in Neuroscience Journal Club (NSCI 720), Scientific Writing (NSCI 721), and Responsible Conduct in Research (ID 709).

**REQUIREMENTS FOR DISSERTATION CANDIDACY.** In addition to the Core Courses described above, students must successfully pass a Qualifying Examination which consists of developing and defending a research proposal selected from 8-10 potential topics. This is normally completed in the summer between the first and second years in order to be admitted to candidacy for a dissertation.

**COURSE DESCRIPTIONS.** While the coursework listed is intended for graduate students in the Program in Neuroscience, it is open to qualified students in other departments with the approval of the program Director and the individual course director.

**NSCI 701. Foundations of Neuroscience.** This course provides a thorough overview of neuroscience over two semesters. It systematically covers neuroscience in an integrated fashion covering the following main topics: 1) the cellular and molecular biology of neurons; 2) principles of synaptic transmission; 3) neurobiological basis of cognition and cortical function; 4) sensory perceptions; 5) movement; 6) CNS pharmacology; 7) neural information processing; 8) developmental neuroscience and; 9) behavioral neuroscience. The course includes both didactic and primary literature- based content and is the first required course in the Program in Neuroscience. (6 -6 credit hours, Fall and Spring semesters). Traditional Lecture (6 credit hours)

**NSCI 708. Topics in Neuroscience Elective.** A small group faculty-led discussion course on selected topics in neuroscience. Course topics are offered each Summer semester by groups of faculty and students and faculty will discuss primary literature Traditional Lecture (3 credit hours)

**NSCI 710. Tutorials in Neuroscience.** Tutorials cover specialized topics in neuroscience in depth in a one-on- one or very small group setting. Courses consist of intensive, directed reading and discussion to conclude with a review paper and presentation o Program in Neuroscience. Topics include: Affective Disorders, Schizophrenia, Drugs of Abuse, Alzheimer’s Disease, Hypoxia/Ischemic Brain Injury, Alcoholism, Suicidality, ALS, and SCA-1, Neuronal Effects of Stress, Statistics for Neuroscientists and others by agreement with individual instructors. Traditional Lecture (1-9 credit hours)

**NSCI 720. Neuroscience Journal Club.** A review of significant issues in neuroscience including literature review and discussion of recent data and news. Traditional Lecture (1-9 credit hours)

**NSCI 721 A. Scientific Writing in Neuroscience.** An introduction to scientific writing that includes preparation of abstracts for scientific meetings, presentations at meetings, preparation of a scientific manuscript for publication and, finally, preparing a grant proposal for extramural funding in the NIH style Traditional Lecture (3 credit hours)

**NSCI 790. Neuroscience Laboratory Survey.** A survey of up to six active research laboratories in the Program in Neuroscience. Weekly meetings in NSCI 790 discuss and compare different laboratory environments and experience and help students prepare Individual Development Plans to guide their training as scientist. Traditional Lecture (3 credit hours)

**NSCI 791. Senior Laboratory Rotations.** These are intensive laboratory rotations for second year students in the Program in Neuroscience. They are intended for students to begin research in their planned dissertation laboratories. Thus, all three rotations can be within the same laboratory. However, they may also be conducted in up to three different laboratories, depending on the student’s training needs and interests. Traditional Laboratory (6-9 credit hours)

**NSCI 798. Dissertation Research in Neuroscience.** Traditional - EL Dissertation (9 credit hours)

**PLAN OF STUDY**

**YEAR 1 - FALL**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<td>NSCI 701</td>
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<td>BIOC 704</td>
<td>Fundamental Biochemistry</td>
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<td>NSCI 790</td>
<td>Laboratory Rotation Surveys</td>
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YEAR 1 - SPRING
NSCI 701 Foundations in Neuroscience 6
NSCI790 Laboratory Rotation Surveys 3
NSCI 720 PIN Journal Club 1
ID 709 Responsible Conduct in Research 1

YEAR 2 - SUMMER
NSCI 791 Senior Laboratory Rotation 9
NSCI 708 Topics in Neuroscience Elective 3

YEAR 2 - FALL
NSCI 721 Scientific Writing in Neuroscience 2
NSCI 791 Senior Laboratory Rotation 6
NSCI 720 PIN Journal Club 1
ID 740 Statistical Methods in Research 3

YEAR 2 - SPRING
NSCI 721 Scientific Writing in Neuroscience 2
NSCI 720 Neuroscience Journal Club 1
NSCI 791 Senior Laboratory Rotation 6

YEAR 3 - SUMMER
NSCI 791 Senior Laboratory Rotation 9

YEAR 3+
NSCI 798 Dissertation Research 9
ID 714 Professional Skills 3
ID 715 Teaching in Higher Education (optional, but recommended) 6

NURSING PROGRAM
Mary W. Stewart, PhD, RN, Director

FACULTY

Professors:
Kaye Bender, PhD, RN, RAAN
Debrynnda B. Davey, EdD, RN, CDVC, Dip.
Fazlay S. Faruque, PhD, GISP
Audwin Fletcher, PhD, APRN, FNP-BC, FAAN
Janet Y. Harris, DNP, RN, NEA-BC
Lisa A. Haynie, PhD, RN, FNP-BC
Kim W. Hoover, PhD, RN
Sharon Lobert, PhD, RN
Susan Lofton, PhD, RN, PHCNS-BC
Tina Martin, PhD, RN, FNP-BC
LaDonna Northington, DNS, RN, BC
Anne Norwood, PhD, RN, FNP-BC
Marcia Rachel, PhD, RN, NEA-BC
Jennifer Robinson, PhD, RN, CNE,FAHA
Kandy K. Smith, DNS, RN
Mary W. Stewart, PhD, RN
Jean T. Walker, PhD, RN
Robin Wilkerson, PhD, RN
Renee Williams, PhD, RN, CCE
Karen Winters, PhD, RN

Associate Professors:
Robin Christian, DNP, APRN, FNP
Kate Fouquier, PhD, RN, CNM
Marilyn Harrington, PhD, RN, AGNP-C
Laree Hiser, PhD
Sheila Keller, PhD
Debbie Konkle-Parker, PhD, RN, FNP-BC
Lei Zhang, PhD, MSc, MBA

The PhD in Nursing program provides a strong foundation in theoretical and methodological content essential for the scholarly investigation of health care problems encountered in the practice of nursing. The program is designed to develop nurse researchers to generate and translate knowledge toward improving the health of individuals, families, communities, and populations through the conduct of biologic, physiologic, or experiential research in health and illness. The program of study and research are foundational to understanding client-centered health problems and developing the theoretical and experiential foundation necessary to initiate and coordinate clinical outcomes research. UMMC offers two entry points to the PhD in Nursing program: the post-BSN and post-masters. Individuals seeking admission to the PhD in Nursing program must meet the general admission requirements and technical standards for admission for the School of Graduate Studies (SGSHS), as well as those determined by the School of Nursing. Please contact the program director for specific program requirements.

This is a collaborative program between the University of Mississippi Medical Center (UMMC) and the University of Southern Mississippi (USM). Each institution grants its own degree; however, there are similar admission requirements and core courses (ethics, philosophy, research methods, theory). Students may take any of the core courses at either University. Courses successfully completed at one institution will be accepted without reservation at the other and will not count as transfer credits. Each school offers its own selected fields of study. UMMC offers two tracks: biological/physiological research (basic sciences) and human experiences in health care (clinical) research. USM prepares scholars with a leadership focus. Students will receive their degrees from the institution that offers the area of study selected by the students.
PHN 701. Seminar (Journal Club). Serves as a forum for nursing scholars to both enhance and affirm individual scholarly activities. Includes opportunities for individual students to present a variety of research articles and proposals. Traditional Lecture (1 credit hours)

PHN 702. Pathophysiological Phenomena. A focused study of specific nursing phenomena in pathophysiological nursing care. Students present and evaluate current research on selected topics. Traditional Lecture (2 credit hours)

PHN 705. Writing Proposals. Preparatory course for the PhD comprehensive examination that examines development of the problem statement through analyses of quantitative and qualitative research methodologies under the guidance of a faculty mentor. Traditional Lecture (4 credit hours)

PHN 706. Philosophy of Science. Focuses on the development of science in the Western world. The nature of what constitutes science and ways of knowing and thinking as they relate to the development of science will be addressed. Emphasis is placed on the process of analysis. Traditional Lecture (3 credit hours)

PHN 707. Phenomena in Nursing Research. This course is a focused review of specific nursing phenomena (e.g., caring, coping, clinical outcomes). Students present and evaluate current research on selected topics. Traditional Lecture (2 credit hours)

PHN 708. Quantitative Research Designs. This course examines quantitative designs most applicable to the discipline of nursing. The course emphasizes the practice issues related to the conceptual, empirical and analytical components of research plans as they are influenced by sample size, setting, number and time of measurements. Traditional Lecture (3 credit hours)

PHN 709. Qualitative Research Designs. Examines the qualitative research designs most applicable to the discipline of nursing. Issues and critical analysis of traditional and emerging designs are discussed. Emphasizes the practice of qualitative research. Traditional Lecture (3 credit hours)

PHN 710. Research Practicum. Allows the student to focus on individual area of study which supports the development of the dissertation proposal. Traditional Practicum/Internship (1-6 credit hours)

PHN 711. Data Collection and Analysis. Focuses on methods of data collection and analysis. Selected data collection methods will be examined. Selected analyses for various data sets will be studied and the graduate student will carry out an analysis of data sets. Traditional Lecture (3 credit hours)

PHN 712. Writing for Funding. Examines the essential components of a funding/grant proposal and identifies sources of funding. Graduate students identify potential private or government funding sources appropriate for their research interests. Traditional Lecture (2 credit hours)

PHN 713. Laboratory Methods. Focuses on methods of data collection and analysis in the biological/physiological lab setting. Traditional Lecture (3 credit hours)

PHN 714. Theory Construction and Testing. This course focuses on the analysis of existing theories as the basis for synthesis, construction, and testing of middle range theory for expanding the scientific base of the discipline of nursing. Traditional Lecture (3 credit hours)

PHN 717. Directed Research. Allows the student, under faculty direction, to focus on areas of study in specific areas of research. Supports the student’s efforts to clarify individual research focus. Traditional Lecture (1-4 credit hours)

PHN 733. Research Design & Methods for Adv Nurse. (Online and Hybrid) Focuses on understanding research designs and methods as they impact research utilization. Students will explore issues related to data collection, sampling, statistical versus clinical significance and outcomes evaluation. Traditional Lecture (2 credit hours)

PHN 737. Advanced Physiology/Pathophysiology. (Hybrid) This course provides an understanding of human physiological and pathophysiological processes. A human body systems approach is used applying concepts in biochemistry and cell biology as they influence health and illness. Topics include Cell Biology, Cancer Immunity and Inflammation, Genetics and the Integumentary, Musculoskeletal, Reproductive, Pulmonary, Renal, Cardiovascular, Endocrine, Gastrointestinal and Nervous Systems. (Theory) Traditional Lecture (2 credit hours)

PHN 766. Clinical Pharmacotherapeutics. (Online) This course provides a foundation and clinical application of pharmacotherapeutic interventions commonly prescribed for healthy and ill individuals across the life span. Emphasis is placed on pharmacokinetic and pharmacodynamic principles along with integration of the use of these products including variations for selected special populations specific to the clinical track of study and client characteristics. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Traditional Lecture (3 credit hours)

PHN 777. Advanced Health Assessment. This course focuses on the theoretical basis of performing a physical assessment on the individual throughout the life span. Students will acquire advanced knowledge and skills necessary to perform physical assessments. The emphasis is on mastering interviewing, history taking, and advanced physical assessment skills. Traditional Lecture (3 credit hours)

PHN 780. Special Topics. Elective course to provide the student with additional study to support research topic development. Traditional Lecture (1-4 credit hours)

PHN 780-1. Special Topics 1. Traditional Lecture (1-4 credit hours)

PHN 780-2. Special Topics 2. Traditional Lecture (1-4 credit hours)

PHN 780-3. Special Topics 3. Traditional Lecture (1-4 credit hours)

PHN 791. Dissertation Research Proposal. In consultation with their mentors and advisory committees, students will write and successfully defend a PhD dissertation proposal in which they describe the problem and research question(s), the background and significance, and the research design. Traditional Dissertation (1-3 credit hours)

PHN 798. Dissertation and Dissertation Research. In consultation with their mentors and advisory committees, students will write a PhD dissertation in which they describe the findings and importance of their research project. Traditional Dissertation (1-9 credit hours)

OUTSIDE EMPLOYMENT

Students are advised to limit outside employment to 20 hours a week. Information about financial aid including, stipends and scholarship, is available. **Students who receive stipends must have permission from the SGSHS Dean to engage in outside employment.**
# POST-BSN ENTRY

## PLAN OF STUDY

### YEAR 1 - FALL

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<tr>
<th>Course</th>
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### YEAR 1 - SPRING

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<tbody>
<tr>
<td>PHN 737</td>
<td>Advanced Physiology/Pathophysiology</td>
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<td>PHN 733</td>
<td>Research Design and Methods for ANP</td>
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<td>DNP 721</td>
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### YEAR 2 - SUMMER

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### YEAR 2 - FALL

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### YEAR 2 - SPRING

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<tr>
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<td>PHN766</td>
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### YEAR 3 - SUMMER

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### YEAR 3 - FALL

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### YEAR 3 - SPRING

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### Fall+

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<td>PHN 791</td>
<td>Dissertation Proposal (min of 1 hour)</td>
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<td>Dissertation Research (min of 6 hours)</td>
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### Total number of hours for degree: 72

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*Electives: 12 hours required for degree. Substantive support courses: e.g., (PHN 711) Data Collection and Analysis, PHN 707 (Phenomena of Nursing), PHN 712 (Writing for Funding), ID 718 (Health Policy and the Healthcare System), ID 725 (Environmental Health), ID 701 (Introduction to GIS), CHS 759 (GIS in Healthcare and Epidemiology), PHN 780 (Special Topics), PHN 717 (Directed Research), PHN 710 (Research Practicum), Advanced Statistics, Genetics, Biochemistry, Epidemiology, Anthropology, Sociology, or any other graduate or doctoral-level course approved by advisor.

**Students must enroll in PHN 701 every semester until successful dissertation proposal defense.
## POST-MSN ENTRY

### YEAR 1 - FALL

<table>
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<tr>
<th>Course</th>
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<tr>
<td>DNP 720</td>
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### YEAR 1 - SPRING

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<td>DNP 721</td>
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### YEAR 2 - SUMMER

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### YEAR 2 - FALL

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<td>PHN 708</td>
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<td>PHN 709</td>
<td>Qualitative Research Designs</td>
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### YEAR 2 - SPRING

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### YEAR 3 - SUMMER

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### YEAR 3+ - FALL AND SPRING

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<tbody>
<tr>
<td>PHN 701</td>
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<tr>
<td>PHN 791</td>
<td>Dissertation Proposal (min of 1 hour)</td>
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<td>PHN 798</td>
<td>Dissertation Research (min of 6 hours)</td>
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Total number of hours for degree: 50

*Electives: 12 hours required for degree. Substantive support courses: e.g., (PHN 711) Data Collection and Analysis, PHN 707 (Phenomena of Nursing), PHN 712 (Writing for Funding), ID 718 (Health Policy and the Healthcare System), ID 725 (Environmental Health), ID 701 (Introduction to GIS), CHS 759 (GIS in Healthcare and Epidemiology), PHN 780 (Special Topics), PHN 717 (Directed Research), PHN 710 (Research Practicum), Advanced Statistics, Genetics, Biochemistry, Epidemiology, Anthropology, Sociology, or any other graduate or doctoral-level course approved by advisor.

**Students must enroll in PHN 701 every semester until successful dissertation proposal defense.

## PATHOLOGY- MS

### MASTER OF SCIENCE IN PATHOLOGY

William P. Daley, MD, Program Director

### FACULTY

#### Professor:
William P. Daley, MD

#### Associate Professor:
Ayman Asfour, MD

The Master of Science in Pathology is an intensive one-year program intended for medical students who desire to obtain training in both anatomic and clinical pathology. Anatomic pathology encompasses surgical pathology, autopsy pathology, and cytopathology. Clinical pathology consists of transfusion medicine (immunohematology), microbiology, chemistry, and hematopathology. The Master of Science in Pathology will appeal to medical students who are accepted into the Sidney A. Coleman Post-Sophomore Medical Student Pathology Fellowship and are seriously considering pathology as a career. In addition, the program will attract medical students who plan a career in the surgical specialties. In previous years, rotations in pathology were mandatory for residents in surgery and obstetrics-gynecology, but this is no longer the case. This program will allow students planning a career in those disciplines to receive special training in pathology so...
the student, as a surgeon, can better understand and appreciate the complexity and limitations of pathologic analysis of specimens. The student will also better appreciate the role of communication between surgeon and pathologist for optimal patient care.

Students enrolled in the program are medical students who step out of the medical school curriculum after completion of the second year of medical school to spend one year in pathology training. During this time, the students will be enrolled in courses in pathology including surgical pathology, autopsy pathology, hematopathology, cytopathology, and transfusion medicine. Students work daily with pathology residents, pathologist assistants, and attending pathologists. These students also attend many conferences and didactic lectures. Opportunities for research include working with pathology attending physicians as well as researchers at the Cancer Institute.

The MS in Pathology program requires a minimum of 30 credit hours beyond a BS or BA degree. To be eligible for graduation, students must maintain a GPA of 3.0 or higher or a weighted numerical average greater than or equal to 80%.

**PLAN OF STUDY**

<table>
<thead>
<tr>
<th>Year 1 - SUMMER</th>
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<tbody>
<tr>
<td>PATH 725</td>
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<th>Year 1 - FALL</th>
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<td>PATH 724</td>
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<th>Year 1 - SPRING</th>
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<td>PATH 724</td>
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<td>PATH 743</td>
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<td>PATH 747</td>
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**Program prerequisites:**
- Applicants must have successfully completed their first and second year of medical school and be good standing.

**Application Deadline and Requirements:** Access to an online application form is available on the [School of Graduate Studies website](#).
- Applicants will be evaluated on the following:
  - A letter of interest in the program
  - Applicant’s curriculum vitae
  - Transcripts from university granting terminal degree
  - Admissions interview
  - A letter of admission into the Sidney A. Coleman Post-Sophomore Medical Student Pathology Fellowship

**PATH 724. Autopsy Pathology.** Techniques, interpretation and clinical correlation under close supervision of staff. Prerequisite: 721. (Lecture) (1-15 semester hours)

**PATH 725. Surgical Pathology.** Frozen section diagnosis, description of gross specimens, and interpretation of microscopic sections. Prerequisite: 721. (Lecture) (1-15 semester hours)

**PATH 726. Cytopathology.** Preparation of specimens, interpretation of smears, and attendance at cytology conferences and lectures. Prerequisite: 721. (Lecture) (1-15 semester hours)

**PATH 741. Immunohematology.** Blood group antigens and antibodies; their role in hemolytic disease and transfusion incompatibility reactions. Prerequisite: 732 or equivalent (Lecture) (1-15 semester hours)

**PATH 743. Pathology Seminar.** Current research topics in experimental pathology. (Lecture) (1-15 semester hours)

**PATH 746. Hematopathology.** An introduction to basic principles of hematopathology including interpretation of complete blood counts, peripheral blood smears, histologic preparations, and flow cytometry in order to arrive at a specific hematologic diagnosis (Clinical Rotation) (3-15 semester hours)

**PATH 747. Clinical Practice in Laboratory Medicine.** Clinical Practice in Laboratory Medicine consists of areas of special topics and many include any of the core rotations (surgical pathology, autopsy, transfusion medicine, hematopathology, and cytopathology) or clinical chemistry, immunopathology, and microbiology. (Clinical Rotation) (3-15 semester hours)
PATHOLOGY PROGRAM- PhD
DOCTOR OF PHILOSOPHY IN PATHOLOGY
Dana Grzybicki, MD, PhD, Director

FACULTY
Professors:
Kim R. Geisinger, MD
Janice Lage, MD
Stephen S. Raab, MD

Associate Professor:
Ayman Asfour, MD
Christian Gomez, PhD
Xiu Liu, MD
John T. Lam, MD
Junming Wang, PhD
William P. Daley, MD

Assistant Professors:
Elizabeth Chastain, MD
Venkat K.R. Mannam, MBBS, PhD
Xinchun Zhou, MD
Wael M. Elshamy, PhD

The Department of Pathology offers research and study leading to the Doctor of Philosophy degree in Pathology. Although many applicants already hold the MD, MBBS or other doctoral degree, highly qualified candidates with a bachelor’s degree may be admitted. Student enrolled in the program will be able to develop a broad base of understanding that fosters the ability to synthesize emergent information with current knowledge; recognize scientific questions, develop valid hypotheses, and implement cost-effective experiments to corroborate these hypotheses; and understand, interpret, and effectively communicate scientific data and conclusions for the purpose of written publication and/or presentation at scientific conferences.

PATH 720. General Pathologic Concepts. Focused readings and discussion on the foundational concepts of modern pathology. Traditional Lecture (3 credit hours)

PATH 721. General Pathology. Concepts of disease. This course extends over 2 semesters. The entire course must be completed to receive credit. Traditional Lecture (Total 16 credit hours)

PATH 724. Autopsy Pathology. Techniques, interpretation and clinical correlation under close supervision of staff. Prerequisite: 721 Traditional Lecture (1-15 credit hours)

PATH 725. Surgical Pathology. Frozen section diagnosis, description of gross specimens, and interpretation of microscopic sections. Prerequisite: 721. Traditional Lecture (1-15 credit hours)

PATH 726. Cytopathology. Preparation of specimens, interpretation of smears, and attendance at cytology conferences and lectures. Prerequisite: 721. Traditional Lecture (15 credit hours)

PATH 727. Immunofluorescence Microscopy. Orientation of fluorescence microscopy, preparation and interpretation of histologic sections. Prerequisite: 721. Traditional Lecture (1-15 credit hours)

PATH 728. Neuropathology. Review of autopsy and surgical material from neurology-neurosurgery. A three month in depth tutorial experience in diagnostic neuropathology. Prerequisite: 721. Traditional Lecture (1-15 credit hours)

PATH 730. Electron Microscopy. Basic technique of electron microscopy, and interpretation of biologic ultrastructure. Prerequisite: Anatomy 713 or its equivalent Traditional Lecture (1-15 credit hours)

PATH 731. Research in Pathology. Specific research projects. Traditional Lecture (1-9 credit hours)

PATH 736. Immunogenetics. The major histocompatibility complex (MHC), generation of diversity in antibody synthesis, genetics of normal and pathological immunoglobulins, genetic antigenic variation in microorganisms and animals. Traditional Lecture (1-9 credit hours)

PATH 741. Immunohematology. Blood group antigens and antibodies; their role in hemolytic disease and transfusion incompatibility reactions. Traditional Lecture (1-15 credit hours)

PATH 743. Pathology Seminar. Current research topics in experimental pathology. Traditional Lecture (1-15 credit hours)

PATH 746. Hematopathology. An introduction to basic principles of hematopathology including interpretation of complete blood counts, peripheral blood smears, histologic preparations, and flow cytometry in order to arrive at a specific hematologic diagnosis. Traditional Clinical Rotation (3-15 credit hours)

PATH 747. Clinical Practice in Laboratory Medicine. Clinical Practice in Laboratory Medicine consists of areas of special opics and many include any of the core rotations (surgical pathology, autopsy, transfusion medicine, hematopathology, and cytopathology) or clinical chemistry, immunopathology, and microbiology. Traditional Clinical Rotation (3-15 credit hours)

PATH 748. Problems in Cancer Biology. This course will give a broad overview of the common signaling pathways involved in cancer while encompassing the updates in the field of molecular therapies. Traditional Lecture (1-6 credit hours)

PATH 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 credit hours)

PATH 799. Thesis and Thesis Research. Traditional Thesis (1-6 credit hours)

PLAN OF STUDY

YEAR 1 - SUMMER
PATH 731 Research in Pathology 8
PATH 743 Pathology Seminar 1
PATH 746 Hematopathology 9
**YEAR 1 - FALL**
- ANAT 713 Histology and Cell Biology 3
- BIOCH 710 Biochemistry 10
- PATH 731 Research in Pathology 2
- PATH 743 Pathology Seminar 1

**YEAR 1 - SPRING**
- ANAT 713 Histology and Cell Biology 3
- PATH 731 Research in Pathology 3
- PATH 743 Pathology Seminar 1
- ID 709 Responsible Conduct in Research 1
- Elective* 1

**YEAR 2 - SUMMER**
- PATH 743 Pathology Seminar 1
- PATH 731 Research in Pathology 8

**YEAR 2 - FALL**
- PATH 721** General Pathology 8
- PATH 731 Research in Pathology 3
- PATH 743 Pathology Seminar 1
- Elective* TBA

**YEAR 2 - SPRING**
- PATH 721** General Pathology 8
- PATH 731 Research in Pathology 2
- PATH 743 Pathology Seminar 1
- Elective* TBD

**YEAR 2 – SUMMER**
- PATH 743 Research in Pathology 9
- Qualifying Exam 9

**YEAR 3 – FALL**
- PATH 747 Clinical Practice in Laboratory Medicine 6
- PATH 798 Dissertation and Dissertation Research 6
- PATH 743 Pathology Seminar 1

**YEAR 3 – SPRING**
- ID 714 Professional Skills 3
- PATH 798 Dissertation and Dissertation Research 6

**YEAR 3 – SUMMER+**
- PATH 747 Clinical Practice in Laboratory Medicine 6
- PATH 798 Dissertation and Dissertation Research 9
- PATH 743 Pathology Seminar 1

* Electives are support that focus on the final project of the student which might include: (BIOCH 744) Cellular Biochemistry, (ID 721) Molecular Oncology, or any other graduate or doctoral-level course approved by advisor.

**PHYSIOLOGY AND BIOPHYSICS PROGRAM**
Michael J. Ryan, PhD, Director

**FACULTY**

**Professors:**
- Thomas H. Adair, PhD
- Barbara T. Alexander, PhD
- Lique Coolen, PhD
- Joey P. Granger, PhD
- John E. Hall, PhD
- Robert L. Hester, PhD
- Merry L. Lindsey, PhD
- Jane F. Reckelhoff, PhD
- James G. Wilson, MD

**Associate Professors:**
- Alejandro R. Chade, MD
- Heather A. Drummond, PhD
- Michael J. Ryan, PhD
- Ji Li, PhD
- David E. Stec, PhD
- Andrew Smith, MD, PhD

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
In keeping with the mission of the University of Mississippi Medical Center, the mission of the Department of Physiology is "to maintain the highest level of productivity and excellence in teaching, research, and service programs to the University of Mississippi Medical Center and to the national and international scientific communities". In addition to research, the faculty play leading roles in national and international service to the American Physiological Society, the AHA, the AHA Council for High Blood Pressure Research, NIH, the International Society of Hypertension, and the Inter-American Society of Hypertension.

The Department of Physiology offers a PhD in Physiology and supports a MD/PhD degree in Physiology. For the PhD degree, a minimum of 60 credit hours in physiology and biomedical science courses are required, at least 15 of the 60 credits must be outside the major area of study. In addition, a dissertation is a requisite for the PhD. The MD/PhD degree is offered to highly qualified students by the School of Medicine in collaboration with the School of Graduate Studies in the Health Sciences. This program is designed primarily to train physician scientists who seek a professional career combining clinical skills and research.

**PHYSIO 701. Medical Physiology.** A course providing an in depth study of the functions of the body with special emphasis on the relationships of the different organs to each other. Traditional - EL Lecture (6 credit hours)

**PHYSIO 702. Physiological Concepts.** A course designed to provide initial exposure to laboratory research and study of literature in various areas of physiology. Traditional Lecture (1-9 credit hours)

**PHYSIO 705. Seminar.** Graduate students will prepare, present and attend weekly seminars. Traditional Lecture (1-9 credit hours)

**PHYSIO 707. Research in Physiology.** A course designed to provide hands-on exposure to laboratory research prior to selection of a dissertation project. Traditional Laboratory (1-9 credit hours)

**PHYSIO 715. Endocrinology.** A course covering the historical, biochemical and physiological aspects of the endocrine system. Traditional Lecture (2 credit hours)

**PHYSIO 717. Circulatory Physiology.** A reading and conference course that emphasizes regulation of cardiac output, body fluid volumes and arterial pressures. Traditional Lecture (7 credit hours)

**PHYSIO 725. Fundamental Physiology.** A fundamental course designed to provide students with knowledge of the basic functions of the cells, tissues, organs and organ systems, and how they interrelate to accomplish the many and diverse functions of the human body. The course is intended for students whom physiology is not their primary area of study. Also listed as Dent 625 Traditional - EL Lecture (4 credit hours)

**PHYSIO 727. Physio Applications of Molecular Biology.** A course designed to introduce students to the physiological application of molecular biology approaches such as real-time PCR, Western Blot, in vivo gene transfer & knockdown, transgenic rodent production, and in vitro and in vivo imaging. Traditional Lecture (3 credit hours)

**PHYSIO 728. Scientific Communications in Physiology.** Scientific Communications is designed to provide students with basic tools needed for writing scientific research papers and grant proposals, and for giving effective PowerPoint presentations. Traditional Lecture (2 credit hours)

**PHYSIO 731. Renal and Body Fluid Physiology.** A seminar course that includes critical study of research methods, comparative renal physiology and literature on classical and contemporary principles of renal physiology and pathophysiology. Traditional Lecture (7 credit hours)

**PHYSIO 734. Pathophysiology.** This course will integrate clinical and basic sciences and will include brief case presentations and discussion of the molecular and physiological basis of common human diseases. Traditional Lecture (2 credit hours)

**PHYSIO 735. Special Topics.** The course will consist of any combination of lecture, one-on-one (or group) discussion, student presentation and/or written assignments on various areas of physiology. Traditional Lecture (1-9 credit hours)

**PHYSIO 744. Simulation of Physiological Mechanisms.** Introduction to mathematical analysis of physiological phenomena. Topics include ordinary differential equations, numerical methods for solving differential equations, elements of digital computer programming in high-level languages and the use of simulation packages and appropriate demonstrations. Traditional Lecture (3 credit hours)

**PHYSIO 798. Dissertation and Dissertation Research.** Traditional Dissertation (1-9 credit hours)

**PHYSIO 799. Thesis and Thesis Research.** Traditional Thesis (1-9 credit hours)

**PLAN OF STUDY**

**YEAR 1 - SUMMER**

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Credits</th>
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<td>PHYSIO 702</td>
<td>Physiological Concepts</td>
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**YEAR 1 - FALL**

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<tr>
<td>PHYSIO 701</td>
<td>Medical Physiology</td>
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<tr>
<td>BIOCH 710</td>
<td>Biochemistry</td>
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<tr>
<td>ANAT 713</td>
<td>Histology and Cell Biology</td>
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**YEAR 1 - SPRING**

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<tr>
<td>PHYSIO 701</td>
<td>Medical Physiology</td>
<td>6</td>
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<tr>
<td>ANAT 715</td>
<td>Neurobiology or Elective</td>
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</tr>
<tr>
<td>ANAT 713</td>
<td>Histology and Cell Biology</td>
<td>3</td>
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<tr>
<td>ID 709</td>
<td>Responsible Conduct in Research</td>
<td>2</td>
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<td>YEAR 2 - SUMMER</td>
<td>COURSE</td>
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<tr>
<td>PHYSIO 707</td>
<td>Research in Physiology</td>
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<th>COURSE</th>
<th>CREDIT HOURS</th>
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<tr>
<td>PHYSIO 717</td>
<td>Circulatory Physiology</td>
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<tr>
<td>ID 740</td>
<td>Statistical Methods in Research I</td>
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<tr>
<td>PHARM 722</td>
<td>Pharmacology &amp; Therapeutics</td>
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<th>YEAR 2 - SPRING</th>
<th>COURSE</th>
<th>CREDIT HOURS</th>
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<tbody>
<tr>
<td>PHYSIO 727</td>
<td>Physiological Applications of Molecular Biology</td>
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<td>PHYSIO 731</td>
<td>Renal Physiology</td>
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<tr>
<td>PHARM 722</td>
<td>Pharmacology &amp; Therapeutics</td>
<td>6</td>
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<tr>
<td>PHYSIO 744</td>
<td>Simulation of Physiological Mechanisms</td>
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<th>YEAR 3+ - SUMMER</th>
<th>COURSE</th>
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<tr>
<td>PHYSIO 735</td>
<td>Special Topics in Physiology</td>
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<th>COURSE</th>
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<tbody>
<tr>
<td>PHYSIO 798</td>
<td>Dissertation and Dissertation Research</td>
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<td>PHYSIO 728</td>
<td>Scientific Communications in Physiology</td>
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<tr>
<td>ID 714</td>
<td>Professional Skills</td>
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<th>CREDIT HOURS</th>
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<tr>
<td>PHYSIO 798</td>
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<td>PHYSIO 705</td>
<td>Seminar</td>
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**INTERDISCIPLINARY COURSES**

**ID 700. Ethics in Research.** This online course explores issues related to ethics in healthcare research conducted in a variety of settings. Principles of philosophy of science and select ethical theories are applied as a framework for critical ethical issues in healthcare research. Traditional Lecture (2 credit hours)

**ID 701. Introduction to Geographic Information S.** This course introduces students to fundamental concepts and applications of Geographic Information Systems (GIS). Special emphasis is given in the areas of healthcare and epidemiology. This course combines an overview of the general principles of GIS and analytical use of spatial information technology applicable for healthcare professionals. This is the first course of a series on geospatial information technology to be offered as an interdisciplinary graduate course at UMMC. Traditional Lecture (4 credit hours)

**ID 709. Responsible Conduct in Research.** An interactive lecture course designed to provide an understanding of ethics in scientific research and the basic skills important for both oral and written scientific communication. Traditional Lecture (1-9 credit hours)

**ID 710. Research Tools in Molecular Biology.** A course designed to introduce students to contemporary methods in molecular biology including cloning, mutagenesis, transgenic animals, genomics, proteomics, and gene expression. Traditional Lecture (3 credit hours)

**ID 713. Bioinformatics & Genomics.** This multidisciplinary and interdepartmental course is designed to provide students in the School of Graduate Studies in the Health Sciences, and other related programs at UMMC, with sound training and knowledge in the use and application of bioinformatics tools and genomics resources to analysis, visualization and interpretation of high-throughput “omics”, genotype, proteomics, sequence, methylation and other biological data on cancer and other complex human diseases. Traditional Lecture (3 credit hours)

**ID 714. Professional Skills.** A course designed for early to late graduate students and postdoctoral fellows to acquire skills needed to be successful in a scientific work environment, with special emphasis on oral and written communication skills, grantsmanship, career choices, laboratory management, and academic teaching skills. Traditional Lecture (3 credit hours)

**ID 715. Teaching in Higher Education.** A course designed to provide practical and theoretical foundations for teaching in higher education. The course will offer experiences to explore and develop skills that promote learning as well as apply strategies for effective course design and assessment. The intended audience is graduate students and postdoctoral fellows. Traditional Lecture (3 credit hours)

**ID 716. Teaching Practicum.** The practicum enables student teachers to acquire beginning competencies for teaching in higher education in a classroom setting. Traditional Practicum/Internship (1-9 credit hours)

**ID 717. Special Topics Biostat, Bioinfo, & Epi.** Special Topics in Biostatistics, Bioinformatics & Epidemiology. This course is intended to meet the special needs of individual students. Students who wish to learn more about a particular topic can select from the list of available topics and/or contact the Center of Biostatistics & Bioinformatics with their mentor to request a new topic. The structure of individual course modules is decided upon by the module’s instructor. Traditional Lecture (1-3 credit hours)

**ID 718. Health Policy and the Healthcare System.** This course at the beginning provides students the opportunity to analyze health policies and economic issues as they relate to healthcare delivery systems. The complex arrangements and interactions among governmental, private-not- for-profit, and for profit systems are explored within a context that includes economic, legal, and socio- political and public perspectives. Online, Internet, or Web-based Lecture (3 credit hours)
ID 721. Molecular Oncology. The course will provide an in depth presentation of cancer biology topics including initiation, progression, metastasis, genetic instability, DNA damage response, cell cycle control, oncogenes and tumor suppressor genes, cancer immunology, and therapeutic approaches. Traditional Lecture (4 credit hours)

ID 725. Environmental Health. This course offers a general introduction to environmental health form global to local, addressing fundamental topics and current issues. This course covers core topics that prepare students to comprehend environmental health issues leading to prevention and management of the major environmental health problems. Traditional Lecture (3 credit hours)

ID 727. Current Issues in Biomedical Research. This course will expose graduate students to current biomedical research from a variety of disciplines in a didactic and discussion forum. Emphasis will be placed on current technologies and areas of research, how these areas address issues of biomedical interest, and how basic research is translated into clinical practice. Traditional Lecture (2 credit hours)

ID 737. Research in Biomedical Sciences. An interdisciplinary course designed to acquaint students with ongoing research programs and research methodologies in the Biomedical Sciences. Traditional Laboratory (1-9 credit hours)

ID 740. Statistical Methods in Research 1. This course is an introduction to basic statistical methods for research and is designed to enable students to develop their data analysis and interpretation skills. Students will learn about experimental design, estimation, and hypothesis testing, and how to apply statistical techniques such as point and interval estimation, tests of statistical significance, correlation, linear and non-linear regression, ANOVA, and longitudinal data (repeated measures) analysis. The emphasis will be on applied rather than theoretical statistics, and on understanding and interpreting the results of statistical analyses. Data sets will be analyzed using the statistical package STATA. This is a “hands-on” class in the computer lab. data sets will be analyzed under the supervision of instructors.” Traditional Lecture (3 credit hours)

ID 741. Statistical Methods in Research II. A continuation of Statistical Methods in Research I, this course introduces the student to more complicated methods than those discussed in the first course. Datasets will be analyzed using the statistical package STATA throughout the course sequence. Traditional Lecture (3 credit hours)

ID 767. Fundamental Histology and Cell Biology. An integrated, system-based study of the microscopic structure and function of the human body. An introduction to histology and cell biology as it relates to medical science. Traditional Lecture (3 credit hours)

ID 768. Essential Anatomy. An introduction to human anatomy taught in a lecture and dissection format. Traditional Lecture (3 credit hours)

ID 770. Evidenced Based Clinical Research I. Evidence based clinical research I is a first course in methods useful for reading and evaluating the clinical literature. These include tools aimed at assessing the quality of the literature in terms of measurement, validity, reliability and interpretation of data presented in published reports as well as introducing the student to appropriate designs for observational and experimental clinical studies. Traditional Lecture (2-3 credit hours)

ID 777A. Biomedical Sciences Thesis. This course is designed to instruct students in the writing of a MS Thesis. It will involve a proposal phase in which the student maps out a research plan, and then a writing phase in which the student constructs a thesis reflecting what was done in the laboratory and its meaning. Traditional Thesis (3 credit hours)

ID 777B. Biomedical Sciences Thesis. This course is designed to instruct students in the writing of a MS Thesis. It will involve a proposal phase in which the student maps out a research plan, and then a writing phase in which the student constructs a thesis reflecting what was done in the laboratory and its meaning. Traditional Thesis (3 credit hours)
### 2016-2017 Academic Calendar

#### SUMMER TERM

<table>
<thead>
<tr>
<th>May</th>
<th>17 Tuesday</th>
<th>Orientation and registration for new RN to BSN students</th>
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<tbody>
<tr>
<td>18</td>
<td>Wednesday</td>
<td>Orientation and registration for new RN to MSN, MSN, and PMN students</td>
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<tr>
<td>18-19</td>
<td>Wednesday and Thursday</td>
<td>Orientation and registration for new Traditional BSN students</td>
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<tr>
<td>30</td>
<td>Monday</td>
<td>Memorial Day holiday observed</td>
</tr>
<tr>
<td>31</td>
<td>Tuesday</td>
<td>First day of summer term</td>
</tr>
<tr>
<td>31</td>
<td>Tuesday</td>
<td>$100 late registration fee for 2016-17 summer term effective today</td>
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#### FALL SEMESTER

<table>
<thead>
<tr>
<th>August</th>
<th>9 Tuesday</th>
<th>Orientation and registration for Accelerated BSN students (Oxford campus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Wednesday</td>
<td>General orientation for PhD students</td>
</tr>
<tr>
<td>10-11</td>
<td>Wednesday and Thursday</td>
<td>Orientation and registration for RN to BSN students</td>
</tr>
<tr>
<td>11</td>
<td>Thursday</td>
<td>Orientation and registration for new MSN, PMN, and DNP students</td>
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<tr>
<td>15</td>
<td>Monday</td>
<td>First day of fall semester</td>
</tr>
<tr>
<td>15</td>
<td>Monday</td>
<td>$100 late registration fee for 2016-17 fall semester effective today</td>
</tr>
<tr>
<td>19</td>
<td>Friday</td>
<td>Last day to register for fall semester</td>
</tr>
<tr>
<td>26</td>
<td>Friday</td>
<td>Last day to add a course</td>
</tr>
<tr>
<td>26</td>
<td>Friday</td>
<td>Last day to submit an application for December 2016 degree</td>
</tr>
</tbody>
</table>

#### FALL SEMESTER

<table>
<thead>
<tr>
<th>August</th>
<th>9 Tuesday</th>
<th>Orientation and registration for Accelerated BSN students (Oxford campus)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Wednesday</td>
<td>General orientation for PhD students</td>
</tr>
<tr>
<td>10-11</td>
<td>Wednesday and Thursday</td>
<td>Orientation and registration for RN to BSN students</td>
</tr>
<tr>
<td>11</td>
<td>Thursday</td>
<td>Orientation and registration for new MSN, PMN, and DNP students</td>
</tr>
<tr>
<td>15</td>
<td>Monday</td>
<td>First day of fall semester</td>
</tr>
<tr>
<td>15</td>
<td>Monday</td>
<td>$100 late registration fee for 2016-17 fall semester effective today</td>
</tr>
<tr>
<td>19</td>
<td>Friday</td>
<td>Last day to register for fall semester</td>
</tr>
<tr>
<td>26</td>
<td>Friday</td>
<td>Last day to add a course</td>
</tr>
<tr>
<td>26</td>
<td>Friday</td>
<td>Last day to submit an application for December 2016 degree</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>September</th>
<th>5 Monday</th>
<th>Labor Day holiday observed</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 Tuesday</td>
<td></td>
<td>Classes resume</td>
</tr>
<tr>
<td>6 Tuesday</td>
<td></td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
</tr>
<tr>
<td>October</td>
<td>21 Friday</td>
<td>Last day to withdraw from a course and receive only a W grade if failing</td>
</tr>
<tr>
<td>November</td>
<td>7 Monday</td>
<td>Registration begins for 2016-17 spring semester</td>
</tr>
<tr>
<td>21-25 Monday-Friday</td>
<td>Fall break</td>
<td></td>
</tr>
<tr>
<td>28 Monday</td>
<td></td>
<td>Classes resume</td>
</tr>
<tr>
<td>December</td>
<td>17 Saturday</td>
<td>End of fall semester</td>
</tr>
<tr>
<td>26 Monday</td>
<td></td>
<td>$50 late registration fee for 2016-17 spring semester effective today</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------</td>
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</tr>
<tr>
<td><strong>January</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Wednesday</td>
<td>Orientation and registration for new Jackson Accelerated BSN, RN to BSN, MSN and PMN students</td>
</tr>
<tr>
<td>5</td>
<td>Thursday</td>
<td>Orientation and registration for new RN to BSN students</td>
</tr>
<tr>
<td>9</td>
<td>Monday</td>
<td>First day of spring semester</td>
</tr>
<tr>
<td>9</td>
<td>Monday</td>
<td>$100 late registration fee for 2016-17 spring semester effective today</td>
</tr>
<tr>
<td>13</td>
<td>Friday</td>
<td>Last day to register for spring semester</td>
</tr>
<tr>
<td>16</td>
<td>Monday</td>
<td>Martin Luther King’s birthday holiday observed</td>
</tr>
<tr>
<td>17</td>
<td>Tuesday</td>
<td>Classes resume</td>
</tr>
<tr>
<td>20</td>
<td>Friday</td>
<td>Last day to add a course</td>
</tr>
<tr>
<td>20</td>
<td>Friday</td>
<td>Last day to submit an application for May 2017 degree</td>
</tr>
<tr>
<td>30</td>
<td>Monday</td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
</tr>
<tr>
<td><strong>February</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Wednesday</td>
<td>Student Financial Wellness Seminar</td>
</tr>
<tr>
<td><strong>March</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Saturday</td>
<td>Spring holiday begins at 5:00 p.m.</td>
</tr>
<tr>
<td>20</td>
<td>Monday</td>
<td>Classes resume</td>
</tr>
<tr>
<td>24</td>
<td>Friday</td>
<td>Last day to withdraw from a course and receive only a W grade if failing</td>
</tr>
<tr>
<td><strong>April</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Monday</td>
<td>Registration begins for 2017-18 summer term</td>
</tr>
<tr>
<td>14</td>
<td>Friday</td>
<td>Last day to submit an application for August 2017 degree</td>
</tr>
<tr>
<td><strong>May</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Friday</td>
<td>Honors Day</td>
</tr>
<tr>
<td>13</td>
<td>Saturday</td>
<td>Classes end</td>
</tr>
<tr>
<td>16</td>
<td>Tuesday</td>
<td>$50 late registration fee for 2017-18 summer term effective today</td>
</tr>
<tr>
<td>26</td>
<td>Friday</td>
<td>Commencement</td>
</tr>
</tbody>
</table>
HISTORY
The School of Nursing was authorized as a baccalaureate program by an act of the Mississippi legislature in 1948. Established as the Department of Nursing, it achieved the status of a separate school in 1958. The graduate program in nursing was established in 1970. A doctor of philosophy (PhD) program began in 1997 and a doctor of nursing practice (DNP) program was established in 2009. The baccalaureate, master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE). Functioning as a part of the University of Mississippi Medical Center, the School of Nursing assumes the responsibility for providing the people of Mississippi with registered nurses of high professional competence and for raising the professional and educational standards of the nurses already practicing in Mississippi. The School of Nursing is housed in the Christine L. Oglevee Building on the northwest side of the campus. The School of Nursing is a professional school functioning within the general framework and policies of the University of Mississippi Medical Center. It reflects the purpose of the parent university and the Medical Center in its educational services for the State of Mississippi.

MISSION
The mission of the School of Nursing at the University of Mississippi Medical Center is to develop nurse leaders and improve health within and beyond Mississippi through excellence in education, research, practice, and service. Core values of the School of Nursing integral to this mission are respect, integrity, diversity, excellence, and accountability.

PROGRAMS AND CERTIFICATES
The School of Nursing serves approximately 800 students in the following programs and certificates.

Bachelor of Science in Nursing
• Traditional
• Accelerated
• Registered Nurse to Bachelor of Science in Nursing (Online Program)

Registered Nurse to Master of Science in Nursing
• Adult-Gerontology Acute Care Nurse Practitioner (Online Program)
• Adult-Gerontology Nurse Practitioner (Primary Care) (Online Program)
• Family Nurse Practitioner (Online Program)
• Family Psychiatric/Mental Health Nurse Practitioner (Online Program)
• Nurse Educator (Online Program)
• Nursing and Health Care Administrator (Online Program)

Master of Science in Nursing
• Adult-Gerontology Acute Care Nurse Practitioner (Online Program)
• Adult-Gerontology Nurse Practitioner (Primary Care)
• Family Nurse Practitioner (Online Program)
• Family Psychiatric/Mental Health Nurse Practitioner (Online Program)
• Neonatal Nurse Practitioner
• Nurse Educator (Online Program)
• Nursing and Health Care Administrator (Online Program)
• Primary/Acute Care Pediatric Nurse Practitioner (Dual Role)
Post-Master’s in Nursing
- Adult-Gerontology Acute Care Nurse Practitioner (Online Program)
- Adult-Gerontology Nurse Practitioner (Primary Care) (Online Program)
- Family Nurse Practitioner (Online Program)
- Family Psychiatric/Mental Health Nurse Practitioner (Online Program)
- Neonatal Nurse Practitioner
- Nurse Educator (Online Program)
- Nursing and Health Care Administrator (Online Program)
- Primary/Acute Care Pediatric Nurse Practitioner (Dual Role)

Doctor of Nursing Practice
- Post-Baccalaureate
  - Adult-Gerontology Acute Care Nurse Practitioner
  - Adult-Gerontology Nurse Practitioner (Primary Care)
  - Family Nurse Practitioner
  - Family Psychiatric/Mental Health Nurse Practitioner
  - Nursing and Health Care Administrator
- Post-Master’s

Doctor of Philosophy in Nursing (See School of Graduate Studies in the Health Sciences)
- Post-Baccalaureate
- Post-Master’s

The University of Mississippi Medical Center School of Nursing offers a Traditional BSN Program on the Jackson campus at the University of Mississippi Medical Center. An Accelerated Baccalaureate Nursing Program option is offered on the Jackson campus and on the University of Mississippi campus in Oxford for applicants who hold a baccalaureate degree in another field. The RN to BSN program is offered online. The RN to MSN program, the Master of Science in Nursing Program (MSN), and the Post-Master’s certificate are offered through distance learning in online and hybrid course delivery. The Doctor of Nursing Practice Program (DNP) utilizes online and face-to-face course delivery options. Information about the Doctor of Philosophy in Nursing Program (PhD) is included in the School of Graduate Studies in the Health Sciences section of the Bulletin.

Admissions
The selection process for admission to the School of Nursing begins in the Undergraduate and Graduate Admission and Progression Committees. Recommendations are made to the dean for admission to the School of Nursing. (See admission criteria found under each specific program in the Bulletin.)

Selection of applicants is made on a competitive basis without regard to race, creed, sex, color, religion, marital status, sexual orientation, age, national origin, disability or veteran status. For admission purposes, the School of Nursing at the University of Mississippi Medical Center gives preference to residents of Mississippi, as defined by Miss. Code §§ 37-103-7, 37-103-13 and IHL Policy 610. The Mississippi residency requirement is not applied to applicants for the Traditional and Accelerated BSN programs who are current students at the University of Mississippi. The School of Nursing accepts admission applications only from individuals who are U.S. citizens or lawful permanent residents. The School of Nursing may choose to not accept applications from students who cannot demonstrate residency as defined by Miss. Code § 37-103-7 and 37-103-13.

Application Procedure
Undergraduate and graduate applicants must apply online.

All correspondence regarding admission should be addressed to the Office of Student Records and Registrar, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505. A nonrefundable application fee of $25 must accompany each application. All transcripts and documents submitted in support of an application become the property of the University of Mississippi Medical Center and cannot be returned or forwarded to another school or individual. Applications for most programs beginning July 1 of the year prior to the desired year of enrollment. Applications for the Accelerated BSN program on the Jackson campus are accepted beginning January 1 each year.

Applications are reviewed by the Admissions Committee during the month following the deadline.

Admission Deadlines
Admission is contingent upon successful completion of prerequisite courses. If the applicant is accepted and fails to enroll or is not accepted, a new application must be submitted for consideration in the next application cycle. Accepted applicants who wish to defer enrollment due to unplanned or unavoidable circumstances must petition the associate dean for a deferral of enrollment.

Deadlines for applications are:
- Traditional BSN – Summer admission – January 15
- Accelerated BSN –
  - Fall admission - Oxford campus – February 15
  - Spring admission - Jackson campus – September 1
- RN to BSN –
  - Fall admission – May 1
  - Spring admission – October 15
  - Summer admission – February 15
RN to MSN – Summer admission – February 15

MSN -
- Fall admission* – March 31
- Spring admission* – October 15
- Summer admission* – February 15

*NOTE: Nurse Practitioner tracks in the MSN program only accept admissions for the fall semester.

Post-Master’s – Deadlines same as MSN (check with track director for appropriate semester to enter)

DNP - Fall admission – March 31

PhD - Information about application to the PhD in Nursing program is included in the School of Graduate Studies in Health Sciences section of the Bulletin.

**OTHER TYPES OF ADMISSIONS**

**Freshman Early Entry Program**

The Freshman Early Entry program is a joint offering of the University of Mississippi Medical Center School of Nursing, University of Mississippi, and other participating senior colleges/universities in the Jackson-Metropolitan area to provide an early entry route into the Traditional Baccalaureate Nursing program. Applications to the Freshman Early Entry program are accepted in the fall semester of the freshman year until the November 1 deadline date. For detailed information regarding this program and participating colleges and universities, please contact the School of Nursing Office of Recruitment.

**Admission Criteria for Freshman Early Entry Program**

The minimum requirements for admission to the Freshman Early Entry program are:
- A complete application;
- A cumulative high school GPA of at least 3.5 on a 4.0 scale;
- An ACT score of 24 or above;
- A personal interview and a writing sample may be required.

In order to retain status in the Freshman Early Entry program, the following conditions must be met.
- Continuous enrollment as a full-time student at the University of Mississippi or other participating institutions in each regular semester session must be maintained.
- All required courses must be taken at the University of Mississippi or other participating institutions in the sequence defined by the curriculum. Elective courses may be taken at other institutions.
- A minimum overall GPA of 3.0 on all courses AND minimum overall GPA of 3.0 on all required courses through the fall semester prior to the scheduled summer enrollment in the upper division nursing program must be maintained.
- A minimum grade of C in each prerequisite course is required.

**RN to MSN Early Entry Program**

The RN to MSN Early Entry program (RN to MSN EE) is a joint offering of the University of Mississippi Medical Center (UMMC) School of Nursing and participating community college associate degree nursing (ADN) programs. For detailed information regarding this program and participating community colleges, please contact the School of Nursing Office of Recruitment.

There are two application cycles for the RN to MSN EE program. Students are accepted after the first semester of their ADN program. The application deadline for students who started their nursing program in the fall is February 15. The application deadline for students who started their nursing program in the spring is August 31.

**Admission Criteria for the RN to MSN Early Entry Program**

Entry into the RN to MSN Early Entry program is offered to associate degree nursing students through a competitive selection process. Applicants who wish to be considered for early entry status must be enrolled in a participating community college and meet the following minimum criteria:
- A complete application;
- An ACT score of 21 or above (unless the applicant holds a master’s degree);
- A minimum overall grade point average (GPA) of 3.0 on all college courses AND a minimum overall GPA of 3.0 on all nursing courses through the first semester of full-time study in the ADN program;
- A minimum grade of C in each prerequisite course;
- Endorsement from the community college nursing program director or designee attesting to the applicant’s potential for graduate study;
- Fall admits to the ADN program must be currently enrolled in or have already completed 42 credit hours – 14 hours of which must be math and science courses - of the total of 62 hours of RN to MSN prerequisite coursework.
- Spring admits to the ADN program must be currently enrolled in or have already completed 25 credit hours - 7 hours of which must be math and science courses - of the total 62 hours of RN to MSN prerequisite coursework.

**Progression and Retention Criteria for Students in the RN to MSN Early Entry Program**

In order to retain status as an RN to MSN Early Entry student, the following conditions must be met:
- Must maintain continuous enrollment in the participating ADN program;
- Must take all required prerequisites at the participating ADN program in the sequence defined by the plan of study;
- Must maintain an overall cumulative GPA of 3.0 AND an overall nursing GPA of 2.5 or higher;
- Must have a minimum grade of C in each required prerequisite course and nursing course;
- Failure to adhere to each of these conditions will result in dismissal from the RN to MSN EE program.

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
Matriculation into Master’s Program for RN to MSN Early Entry applicants
Upon completion of the ADN program and receiving the associate degree in nursing, students who meet the additional admission criteria for the RN to MSN program listed below will be directly admitted into the RN to MSN program. Additional admission criteria include:

- Completion of all prerequisite courses with a minimum grade of C in each course;
- Minimum cumulative GPA of 3.0 on a 4.0 scale;
- Minimum score of 3.5 on the analytical portion of the Graduate Record Examination (GRE);
- New ADN graduates must successfully complete the NCLEX-RN® examination and become licensed as a registered nurse (RN) by the end of their first semester of RN to MSN course work;
- Students in the Early-Entry RN-MSN program must have one year of clinical experience as a registered nurse before taking any clinical courses in the RN-MSN program.

Track Selection: Students declare track preference in the spring prior to beginning the RN-MSN program. Track selection is competitive.

BSN-DNP Early Entry (Post-Baccalaureate)
The Early Entry Post-Baccalaureate DNP (BSN-DNP EE) option provides selected Accelerated BSN students with early entry into the Post-Baccalaureate DNP program. Students apply for early entry after acceptance into the Accelerated BSN program and are notified of acceptance into the program prior to or at the beginning of their Accelerated BSN coursework.

Admission Criteria for the BSN-DNP Early Entry option
Applicants who wish to be considered for early entry status must meet the following minimum criteria:

- Acceptance into the Accelerated BSN program;
- An ACT score of 26 or above OR a GRE Analytical score of 4.0 or above. The Registrar’s Office must have official scores;
- A minimum cumulative GPA of 3.4 (including undergraduate and graduate coursework). You must send official transcripts for every college and university you have attended. Please note: all grades, including failing grades and grades on repeated courses, are used to calculate the cumulative GPA;
- A complete application.

Progression and Retention Criteria for Students in the BSN-DNP Early Entry Program
To retain status as a BSN-DNP EE student, the following conditions must be met:

- Maintain continuous fulltime enrollment in the Accelerated BSN program;
- Maintain a nursing GPA of 3.2 or higher.

Matriculation into BSN-DNP Program for BSN-DNP EE Applicants
Upon completion of the Accelerated BSN program and receiving the BSN degree, students who meet the additional admission criteria for the BSN-DNP program listed below will be directly admitted into the BSN-DNP program:

- Minimum cumulative GPA of 3.2 on a 4.0 scale; Please note: all grades, including failing grades and grades on repeated courses, are used to calculate the cumulative GPA;
- A score of 3.5 or higher on the analytical section of the GRE;
- Must successfully complete the NCLEX-RN® examination for licensure as a Registered Nurse by the end of the first semester of the BSN-DNP program;
- Approval by the DNP director.

Track Selection
Students in the BSN-DNP Early Entry program declare track preference in the 2nd semester of the Accelerated BSN program. Track selection is competitive.

DNP Early Entry Program (Post-Master’s)
The DNP Early Entry (DNP EE) option permits students admitted to the UMMC School of Nursing MSN program to progress to the DNP program. Students progress seamlessly into the DNP course work upon completion of the MSN. The DNP course work can be completed in full-time study over a minimum of two years or in about three years of part-time study. Admission into the Post-Master’s DNP Early Entry program can occur after completion of all first semester courses of the MSN program. The DNP Early Entry deadline for students who have completed their first semester MSN courses is February 15.

Admission Criteria for the DNP Early Entry program
Early entry into the DNP program is offered to outstanding MSN students through a competitive selection process. Applicants who wish to be considered for early entry status must meet the following minimum criteria:

- A complete application;
- An acceptable Graduate Record Examination (GRE) Score, including a score of 3.5 or higher on the analytical section;
- A minimum cumulative GPA of 3.2 through the first semester of full-time study in the MSN program;
- Three letters of recommendation, at least one from a practice supervisor and at least one from a doctoral-prepared faculty member attesting to the applicant’s potential for doctoral study;
- Pre-admission interview with DNP faculty at UMMC.

Progression and Retention Criteria for Students in the DNP Early Entry Program
To retain status as a DNP EE student, the following conditions must be met:

- Maintain continuous enrollment in the UMMC MSN program;
- Maintain an overall cumulative GPA of 3.2. Any grade less than a C in the MSN program will result in dismissal from the DNP EE program.
Matriculation into Post-Master’s DNP Program for DNP EE Applicants
Upon completion of the MSN program and receiving the MSN degree, DNP EE students who meet the admission criteria for the DNP program listed below will be directly admitted into the DNP program:

- Minimum cumulative GPA of 3.2 on a 4.0 scale;
- Satisfactory scores on the GRE, including a score of 3.5 or higher on the analytical section;
- Approval by the DNP director

Non-Degree Seeking Students (NDSS)
Individuals who have not been admitted to a program in the School of Nursing may be considered for admission to the University of Mississippi Medical Center as a student with non-degree status for enrollment in course work. A maximum of nine hours of credit may be taken in this status, and courses with a minimum grade of B may be applied to a School of Nursing program. Individuals may also enroll in a course in the School of Nursing if they desire to take courses for personal or professional development. A written request for enrollment in the specific course must be submitted to the associate dean in order to be considered and the applicant must complete all NDSS admission requirements prior to enrollment. Enrollment as a NDSS does not guarantee admission into a School of Nursing program. All NDS students are required to complete the full student health packet with all required immunizations, including a two-step TB skin test or two consecutive years of TB skin test results.

Conditional Admit Students (CAS)
Applicants who do not meet all requirements for admission to a School of Nursing program may be considered for conditional admission. Students admitted in this category are limited to two courses the first semester and must earn a B or higher in those courses in order to continue in the program.

Visiting Scholars
Applicants holding terminal degrees or who are engaged in thesis or dissertation research may apply to the University of Mississippi Medical Center School of Nursing for admission as visiting scholars rather than students. Visiting scholars must be approved by the program in which research is to take place. Scholars may use the library and research facilities and sit in on classes with the consent of the instructor. Although fees may be charged for use of computers or laboratory items, tuition and other fees are not assessed. Applications will be reviewed by the associate dean. Applicants will be accepted based on availability of space in the course and permission of the instructor. Students enrolled as visiting scholars will not be considered candidates for a degree. Students wishing to pursue a degree candidacy should consult the appropriate section of the Bulletin.

TRANSFER OF CREDIT
Students in the School of Nursing may request transfer of credits from other academic institutions to meet some specified program requirements. Transfer of credit requires approval from the associate dean for academic affairs. The transfer of credit process begins in the Office of Student Records and Registrar. Students must complete the transfer of credit process, including receipt of approval(s), by the posted deadline date. The transcript must be received in the Office of Student Records and Registrar no later than the last day of classes in a semester for transfer credits to be used toward graduation requirements. Courses transferred to the School of Nursing must have been taken at a college accredited by one of the regional accrediting agencies and, if the courses are from another school of nursing, the school must be accredited by CCNE or ACEN. Currently enrolled students who wish to take a required course outside of the UMMC School of Nursing must have permission from their track director in advance. There is no guarantee that courses taken without permission will transfer and apply to the UMMC degree.

Academic Residency Requirements for the BSN Degree
The Traditional BSN program requires a minimum of 44 credit hours of residence. The Accelerated BSN program requires all credit hours in nursing to be earned in residence in the School of Nursing. The RN to BSN program requires a minimum of 30 credit hours in residence.

Baccalaureate Nursing Transfer Students
Students who wish to transfer to the School of Nursing from other baccalaureate nursing programs must contact the associate dean for academic affairs. Students must meet the prerequisite course requirements for the baccalaureate nursing program, must meet degree and residence credit hour requirements, and must spend the equivalent of one academic year in residence. Placement in the program will be determined after review of course syllabi by the Undergraduate Curriculum Committee in collaboration with the Undergraduate Admission and Progression Committee. Only nursing courses with a grade of B or higher are considered for transfer. The associate dean notifies the registrar and the applicant of the decision.

RN to MSN Transfer Students
Students must meet the prerequisite course requirements for the respective MSN track, must meet degree and residence credit hour requirements, and must spend the equivalent of one academic year in residence. Students may transfer a maximum of 13 credit hours with approval from the associate dean. Only courses with a grade of B or higher are considered for transfer.

Master’s in Nursing and Doctor of Nursing Practice Transfer Students
MSN and DNP students may transfer up to 50% of the total credit hours required for the DNP program or for the specific track in which the student is enrolled for the MSN degree with a minimum grade of B in each course and with the approval of the associate dean. Students must take the equivalent of one academic year of full time course work in the School of Nursing.

PhD in Nursing Transfer Students
PhD in Nursing students who wish to transfer to UMMC must contact the director of the PhD Nursing program.

AMERICANS WITH DISABILITY ACT (ADA)
The School of Nursing ADA policy is found in the Student Handbook on the SON web site.
DEGREE REQUIREMENTS
All candidates for a baccalaureate degree from the University of Mississippi Medical Center School of Nursing must meet the following core requirements: 6 hours of English composition, 3 hours of college algebra, quantitative reasoning or higher level math, 6 hours of natural science, 9 hours of humanities and fine arts, and 6 hours of social or behavioral science.

Candidates for the degree of Bachelor of Science in nursing must have completed the prescribed curriculum with an overall School of Nursing GPA of 2.0 or higher and must have successfully completed prescribed standardized exams administered at the end of the program. Students are certified for graduation by the dean. Transfer students who spend only one year in residence must attend the year in which the degree requirements are completed. The School of Nursing reserves the right to withhold a degree of any student deemed unsuitable for the practice of nursing.

Candidates for a master’s or doctoral degree must complete the approved plan of study with an overall School of Nursing GPA of 3.0 or higher.

GRADUATION WITH HONORS
The School of Nursing awards baccalaureate degrees in nursing with honors for excellence in academic achievement. A graduating Accelerated or Traditional BSN student must have completed all nursing coursework at the UMMC School of Nursing in order to be eligible to graduate with honors. A graduating RN to BSN student must have completed a minimum of 30 credit hours at the UMMC School of Nursing in order to be eligible for consideration to graduate with honors. Degrees are awarded summa cum laude (3.90-4.0), magna cum laude (3.75-3.89), and cum laude (3.50-3.74). For Traditional and Accelerated BSN graduates, the GPA is determined only on the work completed in the School of Nursing. For RN to BSN graduates, the GPA is determined using a combination of the GPA for entering coursework and for work completed in the School of Nursing.

MSN students achieving the top three cumulative grade point averages will be selected for graduation with honors each year: summa cum laude, magna cum laude and cum laude. MSN students must have completed all courses for the degree at the UMMC School of Nursing to be eligible for consideration for Latin Honors.

The Sally McDonnell Barksdale Honors College (SMBHC), offered on the University of Mississippi Oxford campus, allows highly motivated students to develop their own scholarly research interests. Students in the baccalaureate nursing program enrolled in the Honors College at the University of Mississippi have the opportunity to become involved with the research pursuits of the School of Nursing faculty and may complete their research project while completing the BSN program requirements. Students who successfully complete the requirements of the Honors College are honored at a commissioning ceremony before the spring commencement. Detailed information about the Barksdale Honors College can be found on the University of Mississippi website.

Ambassador Program
The Ambassador Program provides opportunities for undergraduate students who demonstrate high academic achievement to serve as official student representatives of the School of Nursing. Selected during the third semester of the Traditional BSN program, these student leaders participate in recruitment events, provide campus tours to prospective students, lead orientation groups and serve as mentors to incoming students. Through their activities and assignments, Ambassadors meet course requirements for a leadership elective and receive special recognition at the school’s annual Honors Day.

ACADEMIC POLICIES AND REGULATIONS
All students in the School of Nursing should be aware of provisions in the Student Handbook which detail practices, procedures, and provisions of the school pertaining to academic progress, professional expectations, and related matters. The faculty and administration reserve the right to make changes in curricula and regulations when such changes are determined to be in the best interest of the student and the school. Accreditation requirements and other factors may necessitate some variations from program descriptions contained therein. Applicants, prospective students, and currently enrolled students must maintain communication with the School of Nursing concerning their individual goals, curricula, and requirements.

Orientation
All students must complete orientation prior to attending any course. Failure to attend orientation may result in dismissal from the program. Under extraordinary circumstances students may be excused from orientation with prior approval from the associate dean. Under such circumstances, a revised orientation plan will be developed.

Registration
To participate in, attend, and receive credit for any course, a student must be registered for that course in the Office of Student Records and Registrar. Students meet with their academic advisors prior to registration to select courses. The academic advisor’s approval verifies that the student meets all the criteria to take the course. Students who are not registered for any course work and who are not on an official leave of absence will be withdrawn from the program and must reapply for admission. Exceptions may be made for students on an alternate plan of study.

Admission and Annual Compliance
TB Skin Test/Immunizations
All applicants must submit a tuberculin skin test and evidence of immunity to certain communicable diseases (i.e. MMR). The student is responsible for all costs involved. Once admitted to the School of Nursing, annual tuberculin skin tests are required and may be obtained from UMMC Employee and Student Health. If a tuberculin test is obtained from another health care provider, the student must provide evidence of valid test results to UMMC Employee and Student Health annually.
Influenza Vaccination
All students must be vaccinated annually against influenza in advance of the flu season unless they are eligible for and have an approved medical contraindication or an approved religious restriction. Proof must be provided to UMMC Employee and Student Health annually by the established deadline.

Hepatitis B
Students admitted to the School of Nursing must initiate at least the first injection in the Hepatitis B immunization series prior to registering for the first course taken. Evidence of immunization is submitted to the Office of Employee and Student Health upon admission. The remaining immunizations in the series are available from Employee and Student Health at the Medical Center. The student must complete the series as prescribed to continue enrollment in the program. The student must also provide Employee and Student Health at the Medical Center evidence of complete Hepatitis B immunization if the series is completed by another health care provider.

CPR Certification
Students are required to submit evidence of Cardiopulmonary Resuscitation certification (CPR) as a BLS Healthcare Provider (American Heart Association) to the School of Nursing. Students in the Traditional and Accelerated BSN programs must show evidence of CPR certification by orientation preceding the first semester of the program. Students in the RN to BSN, RN to MSN, MSN, PMN, and post-baccalaureate DNP programs must show evidence of CPR certification prior to beginning any clinical, practicum, or residency courses. This certification must be maintained throughout enrollment in the School of Nursing if the student is enrolled in clinical or practicum courses.

Health Insurance
Health insurance is mandatory for all students enrolled at UMMC. Health Insurance and disability insurance are available through the University of Mississippi Medical Center.

Liability Insurance
All students are required to have professional liability insurance in place during all clinical, practicum, and residency experiences. Please note: All nurse practitioner students must purchase nurse practitioner insurance and must have it in place during all clinical, practicum, and residency experiences.

Licensure
All students, except students enrolled in the pre-licensure undergraduate nursing program, are required to hold a current, unrestricted RN license in Mississippi or in one of the Compact States. Out-of-state students in non-Compact States who are not practicing in Mississippi must also hold current and unrestricted licensure in the state in which they are practicing. Verification of a current and unrestricted license is required annually. Students must notify the School of Nursing of any licensure restrictions or changes that occur after admission to the school of nursing. Failure to do so in a timely manner may result in dismissal.

Background Checks
Mississippi law requires all health care workers, including students, to complete criminal history background checks through UMMC or another approved health care facility. Contact Human Resources for approval of non-UMMC background checks. All School of Nursing students are required to successfully complete a criminal history background check, including fingerprinting, prior to final acceptance into the program and are required to notify the associate dean for academic affairs immediately of any arrests or convictions that occur after application to or admission to the School of Nursing. A felony conviction may affect a graduate’s eligibility to be licensed or certified.

IRB Certification
The Institutional Review Board (IRB) at the University of Mississippi Medical Center requires that all faculty, staff and students involved in human subjects’ research complete an IRB tutorial. The tutorial is designed to meet national, state and institutional requirements for training in human subject protection. It is a self-directed web-based educational program in the ethics of human subjects research and IRB procedures.

Service Learning
The University of Mississippi Medical Center School of Nursing values service learning as a necessary aspect of education and development. Service projects provide opportunities for faculty, staff, and students to demonstrate the professional values through value-based behavior.

Other Compliance Requirements
The University has additional compliance requirements that students must meet on an annual basis.

Students who fail to maintain School of Nursing compliance requirements will not be allowed to participate in clinical, practicum, or residency activities, which will result in an unexcused absence.

Course Audit
To audit a course, a student must obtain approval from the course coordinator and the associate dean. The student must pay related tuition, fees, and expenses prior to beginning the course.

Attendance/Excessive Absence
Attendance is required at all scheduled classes, laboratories, conferences, seminars, clinical experiences, testing situations, and other course activities. Excessive absence, defined as absence greater than 15 percent of the hours within any one course, regardless of the cause, will be sufficient reason to consider a student as academically deficient. Students who have excessive unexcused absences in a class/clinical will receive a grade of F for the course. Registration for a course makes the student responsible for attending class until the course is completed or until, with the associate dean’s permission, the registrar authorizes withdrawal from that course. Attendance for online courses is determined by participation in required course activities as specified in the course syllabus.
Excused Absences
Students may be excused from class for personal illness, a death in the immediate family, or other extenuating circumstances which are individually evaluated by the course coordinators. When a student must be absent from a required experience, arrangements should be made with the course coordinator prior to the scheduled experience. If prior arrangements are not made, the absence will be considered unexcused. Following any absence, the student is responsible for contacting all course coordinators the day of return to school. Each student is responsible for content presented in class, for obtaining course related materials, for any information obtained through course requirements, and for being informed about announcements made or posted. Requirements for attendance in specific classes and clinical experiences are at the discretion of the faculty and clearly stated in the course syllabi. In the event that absences are permitted, the following policy applies: If a student is permitted to have an excused absence from a required experience, the course coordinator determines if a make-up experience is needed for the student to meet the course objectives. In the event that an unexcused absence occurs, failure to attend clinical experiences or classes does not constitute an official withdrawal.

Release Following Illness
Students returning to school following illness may be required to submit verification from the health care provider permitting them to engage in clinical and class activities without limitations. Students who miss three or more consecutive days will be required to obtain a release from the treating health care provider to return to clinical and course work and submit it to the office of the associate dean for academic affairs.

Lateness to Class
It is a professional expectation that students arrive to class and are seated at the time class begins to avoid interruption to the learning environment. The consequences for late arrivals to class are determined by the course faculty.

Examinations
Undergraduate students must have a weighted test average and an overall course average of 76 or higher to pass the course. All students will take tests at the time and place designated by the instructor. Books or other written materials are not allowed during testing unless specifically permitted by the instructor. In the event a student is unable to take the examination at the time designated, the student must notify the course coordinator prior to test administration or the absence may be unexcused and the course faculty may elect not to give a make-up examination. The student must contact the course coordinator within 24 hours after return to reschedule the exam. The rescheduling and the testing method are at the discretion of the course faculty. If the student fails to contact the course coordinator within 24 hours, the student may receive a zero for the exam.

Standardized Examinations
Students in the Traditional and Accelerated Baccalaureate Programs are required to take nationally normed tests throughout the curriculum in order to progress in the program. Any student who fails to achieve the minimum required score on any of these standardized examinations within any semester (except the last) may be required to register for and complete a one-credit hour remediation course during the next semester and may be required to enroll in the Academic Achievement Program (AAP) through the Office of Academic Affairs. In the last semester of the curriculum, students are required to make a satisfactory score on a comprehensive exam prior to being certified for graduation. Students are responsible for the costs of these examinations.

UNDERGRADUATE STANDARDS FOR SCHOLASTIC PERFORMANCE
To be eligible for progression, a baccalaureate student must achieve a grade of not less than 76 in each course, must have a weighted test average of not less than 76 in each course, and must have a cumulative GPA of 2.0 or higher. Undergraduate students must have a cumulative UMMC School of Nursing GPA of 2.0 or higher in order to graduate. Recommendations regarding promotion, graduation, required remedial work, or dismissal are made by the associate dean.

Grading
The School of Nursing employs a numerical grading system based on 0-100. Evaluation of 300- and 400-level courses will be expressed according to the letter system listed below.

BSN

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
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<tbody>
<tr>
<td>A</td>
<td>Excellent 100-92</td>
</tr>
<tr>
<td>B</td>
<td>Good 91-84</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory 83-76</td>
</tr>
<tr>
<td>D</td>
<td>Less than satisfactory 75-70</td>
</tr>
<tr>
<td>F</td>
<td>Failure below 70</td>
</tr>
<tr>
<td>P</td>
<td>Pass (Credit given but no quality points awarded)</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn</td>
</tr>
<tr>
<td>X</td>
<td>Audit</td>
</tr>
</tbody>
</table>

A student must achieve a grade of 76 or higher in each course and must satisfactorily complete all requirements stated in the syllabus for each course to become eligible for progression. A grade of Incomplete is reported when the student has not fulfilled the course requirements. A grade of Incomplete is not an expectation but rather a privilege that is extended in unusual circumstances by the course coordinator. The course coordinator determines the time allowed for the student to remove the Incomplete grade. The Incomplete grade is converted to a grade of F if not removed within 12 months from the time it was assigned.

The grade F is given if the student has failed based on the evaluation of required work and course objectives. Any required course in which the student has received a grade that is less than satisfactory D or F must be repeated either at the University of Mississippi Medical Center or, with permission of the dean, at another college or university. A minimum grade of B is required on any course repeated at another college or university. Both the first grade and the grade received when the course was repeated are calculated in the School of Nursing overall grade point average (GPA) for BSN students.

Change of Grade
A course instructor may change a reported grade only if the original grade was incorrectly assigned due to clerical or computational error, or if a student meets the requirements for the removal of an Incomplete grade.
GRADUATE STANDARDS FOR SCHOLASTIC PERFORMANCE

Graduate students must achieve a cumulative UMMC School of Nursing grade point average of 3.0 in order to graduate. Recommendations regarding promotion, graduation, required remedial work, or dismissal are made by the associate dean.

Grading

The School of Nursing employs a numerical grading system based on 0-100. In certain courses, a mark of P is given to indicate that a student has received graduate credit, but has been assigned no quality point grade in the course. However, in courses approved for a mark of P, instructors may assign the quality point grade of F. The instructor issues a final grade based on the evaluation of the student's work and achievements of the course objectives. Evaluation of 500-level and higher courses will be expressed according to the letter system listed below.

<table>
<thead>
<tr>
<th>Letter</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent 100-90</td>
</tr>
<tr>
<td>B</td>
<td>Good 89-80</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory 79-70</td>
</tr>
<tr>
<td>D</td>
<td>Poor 79-70</td>
</tr>
<tr>
<td>F</td>
<td>Failure below 70</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
</tr>
<tr>
<td>P</td>
<td>Pass (Credit given but no quality points awarded)</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn</td>
</tr>
<tr>
<td>X</td>
<td>Audit</td>
</tr>
</tbody>
</table>

A student must achieve a grade of 70 or higher in each graduate course and must satisfactorily complete all requirements stated in the syllabus for each course to become eligible for progression. A grade of Incomplete is reported when the student has not fulfilled the course requirements. A grade of Incomplete is not an expectation but rather a privilege that is extended in unusual circumstances by the course coordinator. The course coordinator determines the time allowed for the student to remove the Incomplete grade. If not removed within 12 months from the time it was assigned, the grade is converted to a grade of F.

Change of Grade

A course instructor may change a reported grade only if the original grade was incorrectly assigned due to clerical or computational error, or if a student meets the requirements for the removal of an Incomplete grade.

UNDERGRADUATE and GRADUATE PROGRESSION POLICIES

Final grades in completed courses are available through the student portal at the end of each academic semester. The associate dean will notify students of actions taken after grades are reviewed. The registrar reserves the right to withhold transcripts and diplomas until all account holds are removed.

Leaves of Absence (LOA)

The School of Nursing requires that all students be enrolled every semester or be on an approved Leave of Absence unless there is no course offered in the student's plan of study for the semester. Students who do not meet this requirement will be academically withdrawn. Students may be granted a leave of absence for a period of time not to exceed a total of one year for legitimate health, personal, military or other appropriate reasons.

In case of a request for a medical leave of absence, the School of Nursing may obtain an independent verification through referral from Employee and Student Health at the Medical Center. Prior enrollment in the School of Nursing is required for a student to be granted a leave of absence. Accepted students who have signed the letter of intent but who have never enrolled are not eligible for a leave of absence. Because of the intensity of the curricula, the phasing of the courses and the rapid changes in nursing knowledge, a student may be required to restart courses from the beginning upon returning from leave. Traditional and Accelerated students are required to complete a Re-entry Skills Validation upon return from Leave of Absence.

To be granted a leave of absence, the student must:

- be in good academic standing,
- notify the associate dean in writing of the request for leave of absence,
- obtain approval from the associate dean, and
- inform the associate dean, in writing, of intentions regarding future enrollment.

Students who fail to return to the academic program within the specified time will be withdrawn from the program. If the student has courses in progress at the time the leave of absence is granted, a letter grade of F may be assigned to these courses. A student on leave of absence will not be assigned any academic or clinical responsibilities. Upon return from leave of absence, the student will re-enroll and will pay all tuition and fees appropriate for the period of re-enrollment. No leave of absence will be granted without all appropriate prior approvals.

Withdrawal

Registration for a course makes the student responsible for attending class until the course is completed or until the student withdraws from the course, with the permission of the program director and the associate dean and approval of the dean. Failure to comply will result in recording failing grades in all courses in which the student is registered. Approved withdrawals, if completed on or before the last day specified by the academic calendar, will not be recorded on the student's record. Withdrawal authorized after this date will be recorded as a W through the 10th week of the fall and spring semesters and the sixth week of the summer semester. Withdrawals authorized after this date will be recorded as W if the student is passing the course at the time of withdrawal; a grade of F will be recorded if the student is failing.

No withdrawals will be granted during exam week. A maximum of two course withdrawals are allowed in the baccalaureate programs.

Progression

Grades and progress of each student are reviewed by the associate dean at the end of each grading period. Students who do not meet the established criteria will be notified. Progression in the baccalaureate programs requires a minimum cumulative GPA of 2.0 in all required nursing courses. Graduate students must have a minimum cumulative overall GPA of 3.0 in order to graduate.
• If a student makes a grade of D or F in a course, the course may be repeated once provided the overall GPA is a 2.0. Students who receive a grade of C or better in a course are not permitted to repeat the course.
• If a student repeats a failed nursing course and does not make a grade of C or better, the student will be dismissed from the program. Students dismissed from the program will be notified by the dean of the School of Nursing.
• Only one nursing course may be repeated. If a student receives a D or F in a second nursing course, the student will be dismissed from the program.
• Traditional and Accelerated students who are on an Alternate Plan of Study due to grades are required to complete a Re-entry Competency Evaluation of skills prior to enrollment in a clinical course.
• Students who receive one F grade in a clinical course may be automatically dismissed from the program.
• Students who have more than two incomplete grades will not be allowed to progress until the incompletes are removed.
• A grade of Unsatisfactory (U) will be assigned for any clinical day during which the student fails to meet minimum professional expectations for the day. If the student receives two unsatisfactory grades in the same clinical course, she/he will receive an F for the course. Clinical faculty reserve the right to assign a U to the student for failure to meet any portion of the required clinical expectations.

Probation
A baccalaureate student is placed on probation when the nursing cumulative GPA at the end of any semester is less than 2.0. Students in the BSN Program may not be on probation for more than 15 semester hours of required course work. A remedial plan of study is initiated by the academic advisor for any student placed on probation. Graduate students are placed on probation when the cumulative GPA is less than 3.0.

Dismissal
A student may not be permitted to continue enrollment when:
Undergraduate programs:
• The student receives a second failing grade (D or F) in a nursing course; or
• The student has received a grade of F and the student’s overall GPA is less than 2.0 on all course work completed in the School of Nursing; or
• Any behavior is determined to be unprofessional, unethical, unsafe, or illegal or when performance is unsuitable for the practice of nursing; or
• The student violates UMMC code of conduct or compliance policies which are subject to disciplinary action, up to and including dismissal.

Graduate programs:
• The student receives a second failing grade (F) in a nursing course; or
• The student receives a grade of F and the student’s overall GPA is less than 3.0 on all course work completed in the School of Nursing; or
• The student receives one F grade in a clinical course; or
• Any behavior is determined to be unprofessional, unethical, unsafe, or illegal or when performance is unsuitable for the practice of nursing; or
• The student violates UMMC code of conduct or compliance policies which are subject to disciplinary action, up to and including dismissal.

A student may be dismissed from school without having been placed on probation. Students dismissed from the program for academic reasons and/or unprofessional behavior may appeal the dismissal by following the appeals process. The specific appeals procedure for academic and disciplinary action dismissals is found in the SON Student Handbook. In the event of an appeal, the student may continue to attend class until the appeal process has been concluded.

Re-admission
A student who has been dismissed from the UMMC School of Nursing may apply for admission no sooner than one year after being dismissed from the program. Re-admission is considered on a case-by-case basis. If re-admitted, the associate dean, program director, or admissions committee will design a plan of study based upon the applicant’s individual needs.

OFFICE OF STUDENT AFFAIRS AND SERVICE LEARNING
The School of Nursing Office of Student Affairs and Service Learning provides information, resources, and support to nursing students and prospective students through non-academic advisement, career guidance, enrollment management, orientation, recruitment, tutorial information, student leadership programs, community outreach, and special events.

Counseling
Academic and career counseling is available through the School of Nursing faculty, Student Affairs, administrative staff, and the University of Mississippi Medical Center Office of Academic Support Services. Mental health counseling is available through appropriate professionals at the University of Mississippi Medical Center and through contracts with other agencies through the Life Synch Student Assistance program. Associate deans, program directors, and the director of student affairs can assist students in locating such services as needed.

STUDENT ORGANIZATIONS
Associated Student Body
The Associated Student Body is composed of designated administrators, student body officers, and presidents of other student organizations who meet to exchange information and plan activities affecting student life.
Nursing Student Body Government
The Nursing Student Body Government is composed of students elected by their peers in accordance with the Nursing Student Body (NSB) constitution. The NSB Government plans student activities, fundraisers, and philanthropic activities for students in the School of Nursing with the guidance of the faculty advisor and director of student affairs.

Professional Student Organization
University Chapter, Mississippi Association of Student Nurses, is affiliated with the National Student Nurses’ Association and gives the student an opportunity to participate in the professional activities of the organization.

TUITION AND FEES
Note: Tuition and fees listed below are for the 2016-2017 academic year. All amounts are subject to change pending information from the Institutions of Higher Learning (IHL). Please contact the Department of Student Accounting for more information.

Undergraduate Programs*
Tuition for the Undergraduate Programs is $3,822 per semester, based on enrollment of 12 or more hours. The hourly rate is $318.50 per semester hour. An additional $7,134 per semester is charged to non-residents. Non-resident students taking less than a full-time load will pay a non-resident fee of $594.50 per semester hour, in addition to tuition and required fees.

Fees are charged to various programs as follows:
Traditional BSN students will be charged a non-resident fee of $594.50 per semester hour, in addition to tuition and required fees.

Accelerated BSN students will pay a non-resident fee of $792.66 per semester hour, in addition to tuition and required fees.

Graduate Programs*
Tuition for the Graduate Programs is $3,821.94 per semester, based on enrollment of 9 or more hours. The hourly rate is $424.66 per semester hour. An additional $7,133.94 per semester is charged to non-residents. Non-resident students taking less than a full-time load will pay a non-resident fee of $792.66 per semester hour, in addition to tuition and required fees.

Fees are charged as follows:
RN to MSN students will be charged a one time lab/sim/standardized test fee of $250.00 with their first semester tuition.
Post Baccalaureate DNP students will be charged a one time lab/sim/standardized test fee of $250.00 with their first semester tuition.

Online programs: Students enrolled in online programs will be charged a $150.00 distance learning fee each semester. Non-resident tuition will not be charged for students in online programs. Please look up your program in the bulletin to determine if it is an online program.

Expenses
In addition to tuition, students should be prepared to spend a minimum of $1,500 per academic year for necessary books, instruments, uniforms, malpractice insurance and travel. Students are responsible for transportation and living expenses during the course of study. Each student must have a computer and software which meets program specifications. The computer and software are covered in the financial aid package for qualifying students. Laptop computers are required in the traditional and accelerated BSN, RN to MSN, MSN and post-MSN programs. Standardized exams are administered throughout the BSN program to assess students’ strengths and comprehension. Costs for the first take of these exams are included in the standardized testing fee package. Students are required to pay the additional cost for any retakes of the standardized exams. For an overview of the total cost of attendance, please visit the financial aid web page.

Refunds
See schedule for refunds in the General Information section of the Bulletin. For the most up-to-date information on tuition and fees, please visit the Office of Student Accounting website.
For information regarding billing, payment, tuition refund and financial aid refund, please visit the website.

Financial Aid
The Office of Student Financial Aid encourages students to complete the required application(s) as early as possible to ensure they receive maximum consideration for financial aid. For more information, please visit the website.

SCHOLARSHIPS and AWARDS*
The Thomasson Family Nursing Scholarship, established in 2004, is awarded to a junior student with demonstrated academic excellence and financial need who plans to work in Mississippi upon graduation. Preference is given to students who have responsibility to care for a young family or who have a family member deployed in the military.

The Nursing Education Loan/Scholarship Program (NELS) makes scholarships available to BSN, RN to BSN, RN to MSN, MSN, DNP, and PhD students who wish to advance their academic status. Applicants must be residents of Mississippi or have resided in the state for at
least a year. Loan to service obligation can be discharged on the basis of one year’s service in professional nursing for one year of loan received. Applications are available beginning in January and are awarded on a first come basis for the following fall. Further information may be obtained from the Board of Trustees of State Institutions of Higher Learning, P.O. Box 2336, Jackson, MS 39225-2336. IHL website.

The E. H. Summers Foundation Scholarships were established in 1977 by Mrs. E. H. Sumners of Eupora, MS, to provide scholarship assistance for students from Webster, Montgomery, Attala, Carroll, and Choctaw counties who are enrolled at the University of Mississippi Medical Center. For more information about this scholarship, please contact the UMMC Office of Student Financial Aid website.

The Alma O. Brothers and Dr. Virginia L. Cora Endowed Scholarship in Nursing, established in 2013 to honor in perpetuity the late Alma O. Brothers, nurse and mother of Dr. Virginia Cora, and Virginia Cora, PhD, UMMC School of Nursing alumna and Emeritus Professor, and to provide a scholarship to deserving nursing students at the University of Mississippi Medical Center. This scholarship is reserved for graduate students in the Adult-Gerontology Nurse Practitioner or Psychiatric/Mental Health Nurse Practitioner tracks within the Master of Science in Nursing program.

The L.P. Whitehead Scholarship was established by the Lettie Pate Whitehead Foundation. These awards are available to Christian female full-time undergraduate, both traditional and advanced standing, students who show evidence of financial need. For more information about this scholarship, please contact the UMMC Office of Student Financial Aid.

Mattie D. Jones Clifton Memorial Scholarship Fund was established by Mrs. Clifton’s family in 1987. A native of Raleigh, NC, Mrs. Clifton earned a diploma in nursing at the Mississippi State Charity Hospital Training School for Nurses in 1920. She worked as a registered nurse for a while, then married and left nursing to raise a family. After her husband’s death, she re-entered the field and, from 1955 until her retirement in 1972, was the director of nursing at King’s Daughters Hospital in Yazoo City. Preference for recipients of the Clifton Scholarship is given to older qualified students enrolled in the baccalaureate programs who are seeking to reenter the work force and/or to graduate students in the Nursing and Healthcare Administrator Track.

The Dean’s Scholarship is awarded annually to an incoming doctoral student to recruit individuals who demonstrate distinguished potential for improving the health of Mississippians through nursing at the highest level of scholarship.

The Mississippi Baptist Hospital/Giffoy School of Nursing Scholarship, established in 2000, is awarded to a doctoral nursing student who is in good standing and has a grade point average of 3.0 or higher.

The Leigh Anne Ward and Bobbie G. Ward Endowed Scholarship in Nursing, established in 2011 to honor in perpetuity UMMC School of Nursing alumna Bobbie G. Ward and her daughter, Leigh Anne Ward, provides financial assistance to deserving students preparing for a career in nursing. It is awarded to a senior or Accelerated BSN student with an interest in pediatrics or medical surgical nursing.

The Jo-Ann McCullar Vandergriff Scholarship was established in 2015 to honor in perpetuity Jo-Ann McCullar Vandergriff. It is awarded annually to deserving Accelerated BSN students who are enrolled at the UMMC campus in Jackson and is based on academic performance.

The Dr. Kaye Bender Endowed Fund provides a scholarship for doctoral nursing students, with a specific focus on population health. Priority is given to PhD students.

The Regions Bank Scholarship, established in 1968, is awarded annually to a junior student with excellence in academic, clinical, and overall performance and with documented financial need.

The Hearin Scholarship Fund, established in 1988, offers full tuition scholarships to outstanding undergraduate students selected on the basis of academic record and documented financial need. This is a service scholarship and requires the student serve 30 months to five years (depending on length of the scholarship) as a full-time nurse in Mississippi immediately following graduation.

The Dr. Jeff Hollingsworth Memorial Scholarships are awarded to traditional undergraduate nursing students who are selected on the basis of academic record and have financial need. Preference is given to students from Hinds, Rankin, Madison, and Lauderdale counties.

The Pearl & Otis Walters Scholarship is presented annually to nursing student(s) with outstanding academic achievement who intend to practice in smaller Mississippi towns and communities.

The Edwin N. Rubenstein Scholarship, established in 1998, is awarded annually to a senior student who has demonstrated the most overall improvement from the junior to senior year.

The Ottilie Schillig Memorial Scholarship Fund was established in 1984 through a gift to the Medical Center from the Schillig Trust. Miss Schillig, a native of Port Gibson, was a noted concert singer. At least one scholarship is available each year to an undergraduate student in the School of Nursing. All recipients must be in good academic standing, and preference is given to those students who intend to practice in smaller Mississippi towns and communities.

The Trustmark National Bank Scholarship, established in 1988, is presented to an undergraduate student with outstanding performance in nursing of children as demonstrated by excellence in academic, clinical, and overall performance.

Vicki Randle Bee Student Nurse of the Year Scholarship was established in 2006 by Alon Bee in memory of his wife, Vicki Randle Bee. The recipient is chosen by fellow senior students, and selection is based on the individual exhibiting nursing qualities valued by the School of Nursing.

J. R. Scribner Scholarship was established in 2002. This scholarship is given to a full-time undergraduate nursing student based on academic excellence and who resides north of Highway 82. The recipient agrees to work or live in Mississippi for 24 months. Students may apply through the office of Student Financial Aid.

The William Randolph Hearst Endowment Scholarship Fund, established in 2010 by the William Randolph Hearst Foundation, is an endowed scholarship awarded as a recruitment scholarship to an ethnic minority student who is a U.S. citizen and Mississippi resident seeking a traditional undergraduate nursing degree in the School of Nursing, who has demonstrated financial need, and has a pre-entry GPA of 3.0 or above. Although a recruitment scholarship, it is awarded upon successful completion of the first semester in the School of Nursing.
The Orr-Russwurm Memorial Scholarship Fund was established in 1993 in memory of Dr. and Mrs. William Robert and Helene Mays Orr, Helen Pearsall Orr, Stuart Pearsall Orr, Dr. and Mrs. William Clark and Florence Russwurm. The scholarship is designated for a student in the School of Medicine, School of Nursing, School of Health Related Professions, School of Dentistry, or any other school that may be created in the future at the University of Mississippi Medical Center. The recipient must be planning a full- or part-time career in Christian missionary work. For more information about this scholarship, please contact the UMMC Office of Student Financial Aid.

The Frances Marie Dean Scholarship in Nursing was established in 2006 by the Estate of Frances Marie Dean. The recipient is a nursing student at the University of Mississippi Medical Center.

The McCarty Company Scholarship Fund was established in 2011 by the Create Foundation. The scholarship is awarded to a third-semester student in the School of Nursing who is 22 years of age or older, who demonstrates financial need, and who has community and volunteer involvement.

The Jessie Lynn Bidwell Memorial Scholarship was established in 2011 by Josie and Gene Bidwell in memory of their infant daughter. This scholarship is awarded to an undergraduate student who has successfully completed his/her junior year and who exemplifies caring, compassion, and respect for children and their families. The recipient must also be in good academic standing in the School of Nursing.

The Amber M. Arnold Nursing Scholarship was established in 2010 by Amber Arnold. This scholarship is awarded to an undergraduate in the School of Nursing who is a single parent, demonstrates financial need, is a Mississippi resident and a citizen of the United States, and who has a minimum GPA of 3.0.

The UMMC 50th Anniversary Scholarship was established in 2005 and derived from the UMMC “Promises Kept” campaign. This scholarship is centered on academics, character, and performance. It rotates annually among the schools.

The Susanne Marie Pruett Memorial Scholarship in Nursing was established in 2009 to honor the late Susanne Marie Pruett, a University of Mississippi Medical Center research and PICU/ICU staff nurse, by providing financial assistance to deserving students pursuing a career in the area of intensive care nursing.

The Laura C. Blair Endowed Scholarship in Nursing was established in 2009 to honor in perpetuity Laura C. Blair, a University of Mississippi Medical Center alumna, by providing scholarships to nursing students. The recipient must be a U.S. citizen and Mississippi resident and seeking a nursing degree in the School of Nursing.

The Patricia Dyre Kimble Scholarship in Nursing, established in 2008, is an academic scholarship awarded to a student in the School of Nursing who demonstrates financial need, is in good academic standing, and has a genuine desire to pursue a rewarding and challenging career in nursing. The recipient must be a U.S. citizen and a Mississippi resident.

The Florence E. King Endowed Scholarship in Nursing, established in 2013, is awarded to a student enrolled in the Master of Science in Nursing and Health Care Administrator track. The student must be a U.S. citizen, have financial need, and be pursuing excellence in academic performance. The student awarded must plan to pursue a career in hospital administration immediately upon completion of the MSN degree requirements.

The Christine L. Oglevee Memorial Award, sponsored by the Nursing Alumni Chapter and the School of Nursing, is presented annually at commencement to a graduating senior from the traditional BSN program who is chosen by the faculty as the most outstanding student in the class. The recipient’s name is engraved on a plaque which hangs in the School of Nursing.

The Yvonne Pressgrove Bertolet Award was established in 1986 with a gift from Yvonne and Bob Bertolet of Natchez. Mrs. Bertolet is an alumna of the School of Nursing. Junior students or those who have completed the junior year, who are from Mississippi or any other SREB state, who have a minimum grade point average of 3.50, who actively participate in extracurricular school and campus activities, and who demonstrate those qualities of caring and commitment which exemplify the ideal nurse, are eligible for consideration of the scholarship.

The James T. Baird Memorial Scholarship, established in 2000, is presented annually to a third-semester junior or first-semester senior who is full time, in good academic standing, with a caring attitude and an interest in working with adult clients with cancer.

The Richard N. Graves Award is presented at commencement to the registered nurse senior who is chosen by the faculty as the most outstanding registered nurse student in the class.

The Doris W. Gray Award, established in 1985, is awarded annually to the undergraduate student with outstanding performance in maternity nursing as demonstrated by excellence in academic, clinical, and overall performance.

The Eliza Pillars Registered Nurses Association Annual Award recognizes African-American undergraduate nursing student(s) with outstanding academic achievement.

The Class of 1965 Award, established in 2000, is presented annually to a third-semester junior or first-semester senior who is full time, in good academic standing, and demonstrates financial need.

The Duncan McCormac Memorial Scholarship Award, established in 2004, is presented annually to a third-semester junior or first-year graduate student who is full time, in good academic standing and demonstrates the characteristics most admired in the conduct of the art and science of nursing.

The Mississippi Blood Services Award is available to a full-time student in the graduate nursing program. Students must have a 3.0 GPA or higher.
The F.A. Davis Undergraduate Book Award, established in 1998, is presented to a junior nursing student in recognition of his/her scholastic excellence.

The Mississippi Hospital Association Nurse Executive Award, established in 1998, is presented to the graduate student who demonstrates outstanding academic achievement and creativity in developing the nurse executive role in the health delivery system.

The Bess C. Blackwell Nurse Executive Award, established in 1996, is presented to the graduate student who demonstrates overall excellence as a nurse executive.

The Bess C. Blackwell Scholarship in Nursing, established in 2008, is presented annually to an undergraduate nursing student who is a member of a group of underrepresented populations, based on GPA, letters of recommendation, and personal statement on desire to pursue a career in nursing.

The Janet Y. Harris Scholarship in Nursing, established in 2008, is presented annually to a graduate (master’s or doctoral) nursing student whose focus of study/role is nurse administrator or nurse executive. The student must be an active member of local, state, or national professional nursing associations and demonstrate excellence in coursework and practicum.

The Rosie Lee Calvin Nurse Educator Award, established in 1996, is presented to the graduate student who displays overall excellence as a nurse educator.

The Elizabeth Ann Coleman Nurse Clinician Award, established in 1996, is presented to a graduating nurse clinician student with the highest academic GPA and who proves overall excellence as a nurse practitioner.

The Minta Uzodinma Community Nurse Award, established in 1998, is presented annually to the graduate student who demonstrates outstanding commitment to improve the health of the public.

The Jay Waits Graduate Student of the Year Award was established in 1986. The School of Nursing and the Nursing Alumni Chapter co-sponsor this award and present it annually to a graduate student who, in the judgment of the graduate faculty, exhibits leadership, clinical and academic excellence.

The Rene Reeb Research Award, established in 1998, is presented to a doctoral student who is in good academic standing, enrolled in the human experiences health care track, and demonstrates interest in qualitative research.

Sigma Theta Tau Outstanding Academic Performance Awards, established in 1986, are presented annually to a graduate student and undergraduate student in recognition of superior academic achievement, and activities reflecting the purposes of Sigma Theta Tau.

Sigma Theta Tau Carraway Family Scholarship, established in memory of Charles Morgan Carraway, is awarded to an outstanding undergraduate student selected by the Theta Beta Chapter of the International Nursing Honor Society.

The University of Mississippi Medical Center Student Nurses Association Outstanding Junior Award is presented to the most active junior member of the University Chapter of MASN.

The University of Mississippi Medical Center Student Nurses Association Outstanding Senior Award is presented to a senior student who has been active in MASN and has been a member of the University Chapter of MASN for two years.

Lippincott Undergraduate Book Award, established in 1998, is presented to an undergraduate student in recognition of scholastic excellence.

Lippincott Advanced Standing Book Award, established in 1998, is presented to an advanced standing student in recognition of scholastic excellence.

The Elsevier Science Graduate Book Award, established in 1998, is presented to a graduate student in recognition of scholastic excellence.

The Elsevier Science Doctoral Book Award, established in 1998, is presented to a doctoral student in recognition of scholastic excellence.

The Natural Medicines Comprehensive Database Recognition Award, established in 2001, is presented to the graduating MSN student who demonstrates promise in improving patient care, and shows an appreciation for scientific inquiry and an evidence-based approach to natural medicine. (This student is one who plans on completing a terminal degree in nursing or a related field.)

The Lorea May Honorary Nurse Award was established in 2009 by Dr. Marilyn May Harrington in honor of her mother, Lorea May, who always desired to become a nurse but due to lack of finances was unable to attend nursing school. It is awarded to an African-American senior traditional student or an accelerated student who desires to enter the field of pediatrics.

Master Preceptor Recognition Award recognizes a preceptor who has demonstrated outstanding performance in her/his role as a preceptor for a nursing student(s). The preceptor functions as a resource person, facilitator, clinical role model, educator, and consultant to the student. A Master Preceptor is one that has made extraordinary effort to help nursing students bridge the gap between classroom theory and clinical practice.

The Helen Reeves Turner, MD, PhD Scholarship, established in 2013, is awarded each year to a deserving student from one of the Medical Center schools. The recipient of this award, selected by the dean or her designee, exemplifies Dr. Turner’s outstanding attributes of leadership, education, and service.

* Students must meet specific scholarship and award criteria and may need to complete an application. Eligibility does not guarantee scholarship or award. Scholarships are awarded as funds allow.

LOANS

The Caldwell Loan Fund, established in 1962 by Mrs. Annie C. Caldwell of Hazlehurst, provides interest-free loans to undergraduate nursing students on the basis of need.

The Federal-State Loan Programs, in which the Medical Center participates, are administered through the UMMC Office of Student Financial Aid. Application information is outlined in the Student Financial Aid Disbursement Policies section under General Information. For more information about this loan program, please contact the UMMC Office of Student Financial Aid.
The George C. and Laura B. McKinstry Scholarship/Loan Fund was established in 1973 by Dr. McKinstry in memory of his father and mother to provide low-interest loans to full-time needy students in the School of Nursing.

The Christine L. Oglevee Memorial Loan Fund, supported by gifts from alumni, is a source for loans available on an as-needed basis. Funds are available to students with good scholastic records in the graduate and undergraduate programs of the School of Nursing. Please contact the Office of Student Affairs for more information.

The Mississippi Institutions of Higher Learning makes available the Nursing Education Loan Scholarship Program (NELS) for junior, senior, and graduate students who are pursuing a baccalaureate or higher degree in nursing. Visit the website http://riseupms.com/state-aid/ or call 1-800-327-2980 for more information.

Mississippi Resident Tuition Assistance Grant (MTAG) application should be mailed directly to the college or university where the student will be attending. All recipients must be enrolled in a full-time plan of study and in good academic standing. Information can be obtained by writing the Mississippi Office of State Student Financial Aid, 3825 Ridgewood Road, Jackson, MS 39211-6453, or by visiting its website.

Nursing Teacher Stipend Program (NTSP) is available to licensed registered nurses who are enrolled in the Master of Science in Nursing, DNP or PhD in Nursing program. All recipients must be in good academic standing. Priority is given to nursing faculty within 12 months of earning a doctoral degree. Loan-to-service obligation can be discharged on the basis of two years’ teaching service in professional nursing for one year of loan received. For more information, please visit the website.

WORK STUDY

Students who wish to participate in a work-study program should contact the UMMC Office of Student Financial Aid located in the Verner S. Holmes Learning Resource Center.

HONORS

The Marshal of the Class for Commencement is a graduating senior selected by the faculty based on GPA, commitment, and service to the senior class, the School of Nursing, and the University of Mississippi Medical Center.

The Dean’s List is recognition for undergraduate students who demonstrate superior academic achievement. Eligibility is based on successful completion of a full time course load while taking all required courses in a regular plan of study in the preceding semester in the School of Nursing with a semester average of 3.50 or above.

Who’s Who Among Students in American Universities and Colleges is a national compendium which recognizes seniors and graduate students for outstanding achievement.

Sigma Theta Tau, Theta Beta Chapter, is the School of Nursing Honor Society, established in 1982, and chartered as the Theta Beta Chapter of Sigma Theta Tau, International Honor Society of Nursing, on January 20, 1986. Membership in the society is by invitation extended to undergraduate and graduate nursing students, nursing faculty, and professional nurses who have shown superior scholarship, leadership, and nursing achievement.

Phi Kappa Phi Chapter is the National Honor Society of Phi Kappa Phi was founded in 1897, and the University of Mississippi Chapter was chartered in May 1959. To qualify for membership, undergraduates must be seniors with high standards of scholarship and character. Graduate students and students in professional schools must have distinguished records.

THE NURSING ALUMNI GUARDIAN SOCIETY

The society is a special organization sponsored by the nursing alumni at the University of Mississippi Medical Center to encourage extraordinary giving by nursing alumni, friends, and faculty of the School of Nursing. The gifts, representing either current or deferred contributions, may be restricted or undesignated. The membership of the society holds the responsibility of ensuring that available funds are distributed to the School of Nursing as well as serving as trustee for specially designated charitable programs.

BACCALAUREATE PROGRAM

Three options are available for students wishing to pursue the Baccalaureate of Science in Nursing degree: the Traditional BSN program, the Accelerated BSN program, and the RN to BSN program. The RN-BSN program is classified as online.

Purpose

The purpose of the baccalaureate program is to prepare nurses for entry-level professional practice and provide a solid foundation for graduate study.

BACCALAUREATE PROGRAM OUTCOMES

1. Integrate knowledge and skills from the liberal arts, sciences, nursing, and other disciplines into professional nursing practice.
2. Apply knowledge and skills of organizational and systems leadership, quality improvement, and patient safety to improve patient care outcomes in diverse populations and health care settings.
3. Integrate current evidence from nursing research and other credible sources into professional nursing practice.
4. Integrate information management and patient care technologies into the delivery and evaluation of high-quality, safe, and patient-centered care in a variety of health care settings.
5. Apply knowledge of health care policy, finance, and regulatory environments to professional nursing practice.
6. Demonstrate effective inter- and intra-professional communication and collaboration skills in the delivery of evidence-based, patient-centered care across health care environments.
7. Implement strategies to facilitate health promotion, disease prevention, and health restoration of individuals, families, and populations across the lifespan.
8. Assume accountability for professional values and behaviors.
9. Deliver comprehensive patient- and population-centered care that reflects baccalaureate generalist nursing practice across the health-illness continuum and health care environments.

ADMISSION CRITERIA
The minimum criteria to be considered for admission to the baccalaureate nursing program are outlined under each specific program option. Admission consideration to the undergraduate program is made by the Undergraduate Admission and Progression Committee based on evaluation of application data.

TRADITIONAL BACCALAUREATE PROGRAM

Admission Criteria
1. A complete application;
2. An ACT score of 21 or above;
3. A cumulative GPA of at least 2.5 on a 4.0 scale. (Hours from all previously attempted undergraduate course work are used in calculating the cumulative GPA.) The GPA in required prerequisite course work will also be considered in the admission process;
4. Completion of required prerequisite courses with a minimum of grade C in each course. Applicants may apply for admission when the number of prerequisite courses completed, plus those on the plan of study, equals 62 credit hours. All prerequisite courses (62 credit hours) must be completed before beginning the nursing program;
5. A personal interview and an on-site writing sample may be required.

In unusual instances, the Undergraduate Admission and Progression Committee may consider applicants who do not meet the admission criteria.

PREREQUISITE COURSES
The lower division is comprised of the following courses, which are prerequisites for the upper division of the baccalaureate program. The 62 credit hours of prerequisite courses include:

Natural Sciences and Mathematics: (26 credit hours) Science survey courses or courses for non-science majors are not acceptable for transfer credit. Anatomy and Physiology courses taken more than 10 years ago will not be accepted for transfer credit.

Required Courses
- General Chemistry I with lab (4 hours)
- Science with lab – Suggested courses: Biological Science with lab, Chemistry II with lab, Genetics (4 hours), Environmental Science with lab
- Microbiology – One course with a laboratory (4 hours)
- Human Anatomy and Physiology – Two courses in sequence with labs which include the study of structure and function of the human body (8 hours)
- College Algebra or higher level math (3 hours)
- Statistics – Must include an introduction to descriptive and inferential statistics, including measures of central tendency, variability, correlation, t tests, z tests, ANOVA, chi-square, hypothesis testing, p levels and confidence intervals (3 hours)

Psychosocial Sciences: (18 credit hours)

Required Courses
- General Psychology (3 hours)
- Introductory Sociology (3 hours)
- Human Growth and Development through the Life Cycle (3 hours):
  a. In a senior college, Developmental Psychology, to include development from infancy through old age; or
  b. In a junior or community college, Human Growth and Development, to include development from infancy through old age.
- Nutrition (3 hours)
- Psychosocial Science electives (6 hours)

Suggested Elective Courses
- Abnormal Psychology
- Economics
- History
- Social Problems
- Anthropology
- Geography
- Political Science

Humanities and Fine Arts: A minimum of six courses (18 credit hours)

Required Courses
- English Composition (6 hours)
- Humanities and Fine Arts Electives (9 hours)
- Speech (3 hours)

Suggested Elective Courses
- Art
- Literature
- Drama Music
- Foreign Languages
- Philosophy
- History
- Survey of Religion
- Journalism
Unacceptable Courses
None of the required courses listed, described, or recommended above may be met by the following: courses in physical training, military science, dogmatic religion; mathematics or science designed for non-science majors; or course credit granted without college level testing.

TRADITIONAL BSN PROGRAM PLAN OF STUDY
The following plan of study is for students who are admitted to the Traditional BSN Program. Plans of study may differ based on faculty and clinical resources and necessary curriculum changes. Students will be given the most recent plans of study by their academic advisor upon enrollment. Traditional BSN students are limited to 6 credit hours of electives within the program, excluding N409 (Clinical Nursing Elective) and N322 (Strategies for Success), if required.

SEMESTER I - SUMMER
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<td>Health Assessment Throughout the Life Span</td>
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<td>Pathophysiology</td>
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<tr>
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<td>Introduction to Health Promotion</td>
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<td>N303</td>
<td>Introduction to Pharmacotherapeutics</td>
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</tr>
<tr>
<td>N304</td>
<td>Introduction to Professional Nursing and Evidence-Based Practice</td>
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</tr>
<tr>
<td>N309</td>
<td>Foundations of Nursing Practice</td>
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<td>N427</td>
<td>Child-Adolescent Nursing</td>
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<td>N428</td>
<td>Nursing Research</td>
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SEMESTER III - SUMMER
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<tr>
<td>N409</td>
<td>Clinical Nursing Elective (optional)</td>
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<tr>
<td>N322</td>
<td>Strategies for Success (may be required based on standardized examination score)</td>
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<tr>
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<td>Adult Health II</td>
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<td>N426</td>
<td>Maternal-Newborn Nursing</td>
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<td>N439</td>
<td>Population Based Nursing</td>
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<td>Behavioral Nursing</td>
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<tr>
<td>N435</td>
<td>Nursing Synthesis and Practicum</td>
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<tr>
<td>N449</td>
<td>Nursing Management in Health Care Systems</td>
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<td>N482</td>
<td>Seminar</td>
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TOTAL HOURS 62

ACCELERATED BACCALAUREATE NURSING PROGRAM
The purpose of the Accelerated Baccalaureate Program is to prepare nurses at an accelerated pace for entry-level professional practice and to provide a solid foundation for graduate study. The accelerated program is a continuous curriculum designed for students who have a prior baccalaureate degree in another field. Students complete a continuous 3-semester, 12-month curriculum. Students on the Oxford campus program are admitted annually for fall semester entry. Students on the Jackson campus program are admitted annually for spring semester entry. All students must complete 62 hours of prerequisite course credits prior to entering the program. Students in the accelerated program may integrate with students in the traditional BSN program for some learning activities. A dominant problem-based learning methodology is used for course delivery in the Accelerated BSN program option.

Admission Criteria
Admission to the Accelerated Baccalaureate Program is based on evaluation of the following by the Undergraduate Admission and Progression Committee:
1. a complete application;
2. baccalaureate degree from a college accredited by one of the regional accrediting agencies (applicants must hold the degree before beginning the Accelerated BSN program);
3. an ACT score of 21 or above;
4. a cumulative overall GPA of 3.0 or above on a 4.0 scale (Hours from all previously attempted undergraduate course work are used in calculating the cumulative GPA.)
Applicants who are admitted to the Accelerated BSN Program must complete pre-admission counseling with School of Nursing faculty.
Students must enroll in full-time study in the Accelerated BSN program option. Because of the accelerated pace of the curriculum, students are strongly encouraged NOT to work while in the program.
PREREQUISITES
The prerequisite courses are the same as listed for the Traditional BSN program.

ACCELERATED BSN PROGRAM OPTION PLAN OF STUDY
The following plans of study are for students admitted to the Accelerated BSN Program. The curriculum design utilizes a problem-based learning methodology for course delivery. Plans of study may differ based on faculty and clinical resources and necessary curriculum changes. Students will be given the most recent plan of study upon enrollment.

FALL ADMISSION PLAN OF STUDY – OXFORD CAMPUS

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<td>N405</td>
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<td>Basic Health Assessment*</td>
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<td>Interprofessional Education I</td>
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<td>Healthcare Leadership and Collaboration</td>
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**SPRING ADMISSION PLAN OF STUDY – JACKSON CAMPUS**

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<td>N433-2</td>
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<tr>
<td>Interprofessional Education II</td>
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<td><strong>TOTAL HOURS</strong></td>
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<table>
<thead>
<tr>
<th>SEMESTER III - FALL</th>
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<tr>
<td>N413-3</td>
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<tr>
<td>Health and Illness Across the Lifespan III</td>
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<td>N434-3</td>
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<tr>
<td>Clinical Practicum III*</td>
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<td>N497</td>
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<td>Nursing Capstone</td>
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<td>NS38</td>
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<tr>
<td>Healthcare Leadership and Collaboration</td>
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<td>N436</td>
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<tr>
<td>Scholarship for Evidence Based Practice</td>
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<td>N433-3</td>
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<tr>
<td>Interprofessional Education III</td>
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<tr>
<td><strong>TOTAL HOURS</strong></td>
<td>18</td>
</tr>
</tbody>
</table>

*Includes clinical simulation and lab hours
RN to BSN PROGRAM (Post-RN and Dual Enrollment Program)

Purpose
The purpose of the RN to BSN program is to provide associate degree and diploma RNs a flexible program of study that will allow them to continue to meet work and other obligations while pursuing baccalaureate education. The program of study consists of 62 credit hours of lower division prerequisites and 30 credit hours of upper division nursing courses. All prerequisite hours must be completed prior to entering the program. After successful completion of N421 (Transitions and Trends in Professional Nursing), students will be awarded 34 hours of validation credit, applicable toward hours required for the BSN degree, for other nursing courses (taken in an associate or diploma program) equitable to UMMC School of Nursing courses. Students must complete 30 hours as a student enrolled in the School of Nursing. Graduates of the RN to BSN program will meet the standards and program outcomes for baccalaureate nursing education and receive the BSN degree. The RN to BSN program is classified as online.

A RN to BSN Dual Enrollment Program (DEP) is available to students enrolled in a participating community college. This program provides the opportunity for students pursuing the associate degree in nursing to simultaneously pursue the BSN from UMMC through a dual enrollment route. Only students from partnering community colleges are eligible to participate. Admission to the DEP is competitive.

Admission to the DEP is currently on hold.

Prerequisite Courses (62 credit hours)
The lower division is comprised of the following courses, which are prerequisites for the upper division of the baccalaureate program.

Natural Sciences and Mathematics: (26 credit hours) Science survey courses or courses for non-science majors are not acceptable for transfer credit. Anatomy and Physiology courses should be taken within the last 10 years. However, applicants who have been in continuous nursing practice may request a waiver of this requirement from the associate dean.
- Microbiology-(4 hours) one course with a laboratory
- Human Anatomy and Physiology-(8 hours) two courses in sequence with labs which include the study of structure and function of the human body.
- College Algebra or higher level math-(3 hours)
- Statistics-(3 hours) must include an introduction to descriptive and inferential statistics, including measures of central tendency, variability, correlation, t tests, z tests, ANOVA, chi-square, hypothesis testing, p levels, and confidence intervals.
- Natural Science or Math electives (8 hours) Courses in nutrition or in computer science may be used as Natural Science/Math electives.

Psychosocial Sciences: (18 credit hours)
- General Psychology-(-3 hours)
- Introductory Sociology-(3 hours)
- Human Growth and Development through the Life Cycle (3 hours):
  a. In a senior college, Developmental Psychology, to include development from infancy through old age; or
  b. In a junior or community college, Human Growth and Development, to include development from infancy through old age.
- Psychosocial Science Electives-(9 hours)

  Suggested Courses for Psychosocial Science Electives
  - Abnormal Psychology or other psychology courses
  - Anthropology
  - Economics
  - Geography
  - History
  - Political Science
  - Social Problems or other sociology courses
  - Nutrition

Humanities And fine Arts: (18 credit hours)
- English Composition-(6 hours)
- Speech-(3 hours)
- Humanities and Fine Arts electives- (9 hours)

  Suggested Courses for Humanities and Fine Arts Electives
  - Art
  - Literature
  - Drama
  - Theatre
  - Music
  - Foreign Languages
  - Philosophy
  - History
  - Survey of Religion
  - Journalism

Unacceptable Courses
None of the required courses listed, described, or recommended above may be met by the following: courses in physical training, military science, or dogmatic religion; courses in mathematics or science designed for non-science majors; or course credit granted without college level testing.

RN to BSN (Post-RN) Admission Criteria
1. A completed application;
2. Completion of required prerequisite courses with a minimum grade of C in each course;
3. An associate degree or diploma in nursing from an accredited program (ACEN or CCNE), which included clinical practice courses in nursing;
4. A minimum cumulative GPA of 2.5 on a 4.0 scale (Hours from all previously attempted undergraduate course work are used in calculating the cumulative GPA);
5. Evidence of a current and unrestricted RN license to practice in the United States and licensure/privilege to practice in Mississippi;
6. New associate degree graduates must successfully complete the NCLEX-RN® examination and become licensed as a registered nurse (RN) by the end of their first semester of course work; and,
7. Official transcripts from all schools attended.

**RN to BSN (Dual Enrollment Program) Admission Criteria**

1. Currently enrolled in a participating ADN school;
2. Submission of a complete application:
   a. Students who have completed 42 of the 62 credit hours of required prerequisite courses will be eligible to apply one time during their second semester of enrollment in the ADN program.
   b. Students who have completed all 62 credit hours of prerequisite courses are eligible to apply one time during their first semester in the ADN program.
3. ACT score of 21 or above or previous bachelor’s degree in any field from a regionally accredited university;
4. Minimum overall GPA of 3.0 on all college courses AND on all nursing courses through the first semester of full time study in the ADN program;
5. Minimum grade of C in each prerequisite course;
6. Completion of or currently enrolled in at least 42 of the 62 credit hours of required prerequisite courses for the BSN degree, including the following required courses:
   a. Human Anatomy and Physiology I and II with labs (8 hours)
   b. English Composition I and II (6 hours)
   c. College Algebra (3 hours)
   d. Human Growth and Development (3 hours)

All prerequisite courses must be completed prior to enrolling in any BSN-level nursing courses.

**SUGGESTED RN to BSN PLAN OF STUDY**

The following core and elective courses comprise the RN to BSN Plan of Study. Plans of study may differ based on faculty and clinical resources and necessary curriculum changes. Students will be given the most recent plan of study upon enrollment. All students must take N421 during their first semester and must take N461 during their final semester of study. To be considered full time, the student must be registered for at least 12 hours during a semester.

<table>
<thead>
<tr>
<th>Core Courses (23 credit hours) plus Electives (7 credit hours)</th>
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</thead>
<tbody>
<tr>
<td>N421 - Transitions and Trends in Professional Nursing</td>
<td>3</td>
</tr>
<tr>
<td>N408 - 1 - Health Promotion in Populations</td>
<td>2</td>
</tr>
<tr>
<td>N406 - Health Assessment</td>
<td>2</td>
</tr>
<tr>
<td>N407 - Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>N462 - Professional Role Enactment</td>
<td>2</td>
</tr>
<tr>
<td>N428 - Nursing Research</td>
<td>3</td>
</tr>
<tr>
<td>N528 - Leadership and Management</td>
<td>3</td>
</tr>
<tr>
<td>N431 - Patient Safety and Quality Improvement</td>
<td>2</td>
</tr>
<tr>
<td>N461 - Management and Leadership Practicum</td>
<td>3</td>
</tr>
<tr>
<td>Approved Electives</td>
<td>7</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>30</strong></td>
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</table>

**COURSE DESCRIPTIONS¹ (300- and 400-level courses)**

¹Courses of instruction and hours are subject to change. The School of Nursing reserves the right not to offer some courses because of low enrollment.

The School of Nursing employs a numerical grading system for most courses. Courses which are not assigned numerical grades are Pass/Fail.

**N 300. Introduction to Health Promotion.** This didactic course which focuses on health promotion, risk reduction, teaching/learning, and disease prevention across the lifespan. Emphasis is placed on current major determinants of health. Global healthcare issues are examined as they relate to nursing care. Traditional Lecture (3 credit hours)

**N 302. Health Assessment Throughout Life Span.** This introductory course focuses on health assessment across the life span. Students will acquire the requisite knowledge and skills necessary to perform health assessments. The emphasis is on developing interviewing, history taking, and basic physical assessment skills. Traditional Lecture/Lab (3 credit hours)

**N 303. Introduction to Pharmacotherapeutics.** This course presents principles of pharmacology and pharmacotherapeutics. Characteristics and uses of major drug groups and safe medication administration are discussed with emphasis on nursing management. Consideration is given to individual, age related, and generic responses with specific drugs. Traditional Lecture (3 credit hours)

**N 304. Intro to Prof Nurs & Evidence Based Prac.** This beginning professional course focuses on professional nursing roles, values, ethics and legal issues. It incorporates an introduction to evidence based practice as well as emphasizing professional writing skills. Traditional Lecture (2 credit hours)

**N 307. Pathophysiology.** This didactic course builds on concepts and principles from the basic sciences. The emphasis of the course is on pathological responses to illness/disease. Physical, biochemical, microbial and genetic factors that alter homeostasis are examined. Traditional Lecture (4 credit hours)

**N 309. Foundations of Nursing Practice.** This didactic, laboratory, and clinical course begins preparing the student to function as a provider of care. Traditional Lecture/Lab (5 credit hours)
N 310. Behavioral Nursing. This didactic and clinical course focuses on the nursing care of clients with acute, chronic and complex mental health problems across the life span. Current trends, ethical and legal issues, political, economic and social issues that influence the health care of mental health clients and families are examined. Clinical practice is provided in a variety of settings including acute and community facilities. Traditional Lecture/Lab (4 credit hours)

N 405. Basic Health Assessment. This course focuses on assessing the health of the individual. Students acquire basic knowledge and skills necessary to perform health assessments. Emphasis is placed on developing interviewing history taking, development of pedigrees, foundational assessment skills across the lifespan, and documentation. Traditional Lecture/Lab (2 credit hours)

N 406. Health Assessment. This web-based course focuses on the theoretical basis of performing an assessment on the individual throughout the life span. Students acquire knowledge and skills necessary to perform health assessments. Emphasis is placed on developing skills in interviewing, history taking, and health assessment. Online, Internet, or Web-based Lecture (2 credit hours)

N 407. Pathophysiology. This didactic web-based course builds on concepts and principles from the basic sciences. Emphasis is placed on normal and pathological responses to illness. A human body systems approach is used, applying concepts from cellular biological processes. Online, Internet, or Web-based Lecture (3 credit hours)

N 408-1. Health Promotion in Populations. The course focuses on understanding the forces shaping community and global health patterns and the impact of these global processes on societies. Students will review strategies to assess, plan, implement and evaluate population-focused programs for health promotion and disease prevention of individuals, families, groups, communities and populations. Online, Internet, or Web-based Lecture (2 credit hours)

N 412-1. Professional Nursing Role Development I. This is a two part didactic course series addressing professional nursing development, which is designed to provide a foundational and conceptual context for provision of nursing care. The first course includes basic content on selected concepts for professional nursing practice. The second course expands on the concepts presented in the first course, allowing students the opportunity to apply concepts to embody the role of the professional nurse. Traditional Lecture (2 credit hours)

N 412-2. Professional Nursing Role Development II. This is a two part didactic course series addressing professional nursing development, which is designed to provide a foundational and conceptual context for provision of nursing care. The first course includes basic content on selected concepts for professional nursing practice. The second course expands on the concepts presented in the first course, allowing students the opportunity to apply concepts to embody the role of the professional nurse. Traditional Lecture (2 credit hours)

N 413-1. Health & Illness Across the Lifespan I. This three part didactic course series examines health and illness across the lifespan from infancy through senescence, including the childbearing cycle and mental health. Each course is taught using a conceptual approach and problem based learning methodology. Traditional Lecture (5 credit hours)

N 413-2. Health & Illness Across the Lifespan II. This three part didactic course series examines health and illness across the lifespan from infancy through senescence, including the childbearing cycle and mental health. Each course is taught using a conceptual approach and problem based learning methodology. Traditional Lecture (5 credit hours)

N 413-3. Health & Illness Across the Lifespan III. This three part didactic course series examines health and illness across the lifespan from infancy through senescence, including the childbearing cycle and mental health. Each course is taught using a conceptual approach and problem based learning methodology. Traditional Lecture (5 credit hours)

N 421. Transitions and Trends in Prof Nsg. This bridge course between basic nursing education and advanced practice nursing education examines the following professional roles; provider of care, designer, manager, or coordinator of care and member of the profession. Within these roles, specific role components inherent to professional nursing practice are further explored; altruism, autonomy, human dignity, and integrity. This course must be taken during the first semester of the RN-BSN plan of study. Online, Internet, or Web-based Lecture (3 credit hours)

N 426. Maternal-Newborn Nursing. This didactic and clinical course focuses on nursing care of childbearing clients and their families. Emphasis is on health patterns occurring during pregnancy, birth, and the newborn period. Clinical practice experience is provided in a variety of settings. Traditional Lecture/Lab (5 credit hours)

N 427. Child-Adolescent Nursing. This didactic and clinical course focuses on nursing care of infants, children and adolescents within the context of the family. Clinical learning experiences occur in a variety of settings including acute and ambulatory settings. Traditional Lecture/Lab (5 credit hours)

N 428. Nursing Research. This introductory course to the research process focuses on the study of the research process as a base for nursing practice. Emphasis is on critical analysis of published research studies with regard to implications for clinical nursing practice. Ethical concepts related to research are explored. Online, Internet, or Web-based Lecture (3 credit hours)

N 431. Patient Safety and Quality Improvement. This course provides an introduction to patient safety and health care quality improvement. Emphasis is placed on the role of the professional nurse in improving the quality of health care through designing, implementing, and evaluating evidence-based patient safety interventions and strategies. Online, Internet, or Web-based Lecture (2 credit hours)

N 433-1. Interprofessional Education I. This interprofessional course is a three part series addressing the four interprofessional (IP) collaborative practice competency domains: values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teams and teamwork. Traditional Lecture/Lab (1 credit hour)

N 433-2. Interprofessional Education II. This interprofessional course is a three part series addressing the four interprofessional (IP) collaborative practice competency domains: values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teams and teamwork. Traditional Lecture/Lab (1 credit hour)

N 433-3. Interprofessional Education III. This interprofessional course is a three part series addressing the four interprofessional (IP) collaborative practice competency domains: values/ethics for interprofessional practice, roles/responsibilities, interprofessional communication, and teams and teamwork. Traditional Lecture/Lab (1 credit hour)
N 434-1. Clinical Practicum I. This three part clinical practice course series is designed to provide the opportunity to acquire knowledge, skills, and attitudes required to apply the nursing process to the delivery of patient centered nursing care across the lifespan and in a variety of settings. Clinical across the series includes care of the adult, the neonate, the pediatric and adolescent, childbearing families and the patient with psychiatric/mental health concerns. Traditional Clinical Rotation (6 credit hours)

N 434-2. Clinical Practicum II. This three part clinical practice course series is designed to provide the opportunity to acquire knowledge, skills, and attitudes required to apply the nursing process to the delivery of patient centered nursing care across the lifespan and in a variety of settings. Clinical across the series includes care of the adult, the neonate, the pediatric and adolescent, childbearing families and the patient with psychiatric/mental health concerns. Traditional Clinical Rotation (5-6 credit hours)

N 434-3. Clinical Practicum III. This three part clinical practice course series is designed to provide the opportunity to acquire knowledge, skills, and attitudes required to apply the nursing process to the delivery of patient centered nursing care across the lifespan and in a variety of settings. Clinical across the series includes care of the adult, the neonate, the pediatric and adolescent, childbearing families and the patient with psychiatric/mental health concerns. Traditional Clinical Rotation (5-6 credit hours)

N 435. Nursing Synthesis and Practicum. This didactic and clinical practicum focuses on refinement of students’ clinical and leadership skills. Students synthesize knowledge and skills in client management with multiple clients in collaboration with an assigned preceptor. Emphasis is on refinement of clinical reasoning skills and decision making skills. Traditional Lecture/Lab (4 credit hours)

N 436. Scholarship for Evidence Based Practice. This is an introductory course focusing on the research process and scholarship as the basis for evidence based practice. Students synthesize knowledge and skills in client management with multiple clients in collaboration with an assigned preceptor. Emphasis is on fostering the role of provider of care in acute and community settings. Traditional Clinical Rotation (5-6 credit hours)

N 438. Management and Leadership Practicum. This course focuses on preparing students to acquire skills in nursing management. Application of leadership and management principles will be demonstrated within a variety of healthcare environments. Traditional Practicum/Internship (3 credit hours)

N 439. Population-Based Nursing. Global trends for health promotion and disease prevention are examined. Students analyze healthcare policy issues and paradigmatic cases of ethical dilemmas in world health. Emphasis is on collaboration with others to advocate for improvement in the health of vulnerable populations and elimination of health disparities. Traditional Lecture/Lab (3 credit hours)

N 444. Adult Health I. This didactic and clinical course focuses on the nursing care of adults and elders with chronic and long-term health care problems. Emphasis is placed on the role of provider of care in acute and community settings. Professional nursing values are integrated in theory and clinical learning experiences. Traditional Lecture/Lab (6 credit hours)

N 449. Nursing Management in Health Care System. This course focuses on preparing students to acquire skills in nursing management. Application of leadership and management principles will be demonstrated within a variety of healthcare environments. Traditional Lecture/Lab (4 credit hours)

N 460. Adult Health II. This didactic and clinical course builds on the theoretical and clinical learning experiences of Adult Health I and focuses on the nursing care of adults and elders with complex health care problems. Emphasis is placed on the learner’s developing role of provider and manager of care in acute and community settings. Traditional Lecture/Lab (6 credit hours)

N 461. Management and Leadership Practicum. This clinical laboratory course focuses on the development of the nurse as a manager of care. In the clinical laboratory, the learner applies theoretical concepts of management to the nurse manager’s role in the actual work setting. The clinical experience provides the learner opportunities to develop and demonstrate clinical reasoning skills and decision making skills in using patient care technologies, information systems and communication devices that support safe nursing practices. The learner will evaluate data from many relevant sources to inform the delivery of care. Emphasis is placed on strategies to facilitate implementation of management role functions in a variety of organization environments. This course must be taken during the last semester of the RN-BSN plan of study. Traditional Practicum/Internship (3 credit hours)

N 462. Professional Role Enactment. This course focuses on the synthesis of professional nursing knowledge at the baccalaureate level. Emphasis is placed on continued professional development, and the accountability for professional values and behaviors. Students will develop and demonstrate skills that reflect self-reflection in the pursuit of practice excellence, lifelong learning, and professional engagement. Content is designed to enhance the development of the nurse as a member of the profession. Online, Internet, or Web-based Lecture (2 credit hours)

N 482. Seminar. The emphasis of this course is the application of critical thinking for effective test taking to enhance performance on the NCLEX-RN. Traditional Lecture (2 credit hours)

N 497. Nursing Capstone. This course focuses on refinement of the student’s clinical and leadership skills for practice as a nurse generalist. Emphasis is placed on clinical reasoning and decision-making. Traditional Lecture (2 credit hours)

UNDERGRADUATE PROGRAM ELECTIVES*

*These courses are offered pending faculty availability and sufficient student interest.

N 301. Gerontological Nursing. This independent web-based nursing elective focuses on the care of older adults with acute chronic health problems. The focus is on preventive care, acute care and long-term care in the community and institution settings. Online, Internet, or Web-based Lecture (3 credit hours)

N 319. Special Topics in Nsg and Healthcare. This elective course enables the student to use learning experiences focused on selected topics in special and healthcare nursing to satisfy individual learning needs and interests. Online, Internet, or Web-based Independent Study (1-3 credit hours)

N 320. Individualized Study. This elective course enables the student to use individually designed learning experiences focused on selected topics in nursing to satisfy individual learning needs and interests. Online, Internet, or Web-based Independent Study (1-3 credit hours)

N 320C. Individualized Study: Primary Care Nsg. This elective course is designed to enhance the student’s understanding of normal and pathologic somatic processes and gain experience in application of skills and knowledge in a primary care setting. Online, Internet, or Web-based Lecture/Lab (3 credit hours)
N 321. Directed Clinical Practice Elective. This clinical elective course is designed to augment the student’s existing knowledge and skills in a specific area of clinical nursing practice. Learning activities are tailored to meet student needs and areas of interest. Traditional Clinical Rotation (1-6 credit hours)

N 322. Strategies for Success. This elective course is designed to assist the student in strengthening knowledge of nursing theory and critical thinking skills related to content included in the undergraduate curriculum. Emphasis will be placed on the development of effective study and test taking skills, utilizing personal and preferred learning styles. Test anxiety and other barriers to effective test performance will be identified and discussed. Students will develop and implement, in collaboration with faculty, an individualized plan of content remediation based on identified needs. Traditional Independent Study (2 credit hours)

N 409. Clinical Nursing Elective. This clinical elective course focuses on expanded application of the nursing process in a variety of settings. A limited number of students may be eligible for specialty experiences working with clinical preceptors in the Student Nurse Externship Program. Traditional Clinical Rotation (3 credit hours)

N 419. Special Topics in Nsg and Healthcare. This elective course enables the student to use learning experiences focused on selected topics in special healthcare nursing to satisfy individual learning needs and interests. Online, Internet, or Web-based Independent Study (1-3 credit hours)

N 420. Independent Study. This elective course enables the student to use individually designed learning experiences focused on selected topics in nursing to satisfy individual learning needs and interests. Online, Internet, or Web-based Independent Study (1-3 credit hours)

N 432. Introduction to Professional Writing. This elective course provides students an opportunity to master basic written communication skills necessary to express themselves professionally. The principles and practices examined in this course provide practice in the composition of traditional writing forms such as letters, memorandums, professional papers, and formal proposals. Online, Internet, or Web-based Lecture (1-3 credit hours)

N 453. Exploration in Culture. This elective web-based course surveys cultural phenomena common to various ethnic groups. Online, Internet, or Web-based Lecture (3 credit hours)

N 454. Intrprtg Lab Values & Common Clin Tests. This course is a study of the background, meaning, and nursing implications of laboratory test results. The course will provide the student with the opportunity to understand the interrelationships between clinical laboratory test results and the disease process occurring in the patient. Laboratory values from hematology, clinical chemistry and urinalysis, and microbiology/immunology will be interpreted for infectious diseases, liver diseases, kidney diseases hematologic disorders, and metabolic disorders. Appropriate case studies will be used to illustrate clinical significance. This online course is delivered utilizing asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2-3 credit hours)

N 463. Ambassador Elective. This elective course is designed to nurture leadership development in academically talented students who are selected to participate in the Ambassador program. Students participate in a variety of SON and community service activities that foster personal and professional development, communication and peer mentoring skills. Traditional Lecture (1 credit hour)

N 466. Legal Issues in Nursing. This didactic web-based elective course is designed to assist the learner in exploring the influence of law, legal issues and ethics on professional nursing practice. Content includes basic liability concepts, professional standards of care, legal doctrines, legal documentation of the medical record and the Health Insurance Portability and Accountability Act. Online, Internet, or Web-based Lecture (1-3 credit hours)

N 498. Directed Study in Research. The course provides students practical knowledge of the components of the research process and the opportunity to participate in components of the research process under the direction of a graduate faculty member. Students enrolled in the Sally Barksdale Honors College may enroll in N498 to complete research and thesis hour requirements. Online, Internet, or Web-based Lecture (1-3 credit hours)

N 499H. Honors Research and Thesis. This course provides the student enrolled in the Sally McDonnell Barksdale Honors College the opportunity to conduct and defend thesis research in collaboration with a thesis advisor and committee members in the School of Nursing. The student will gain practical knowledge of the research process and the opportunity to participate in research under the direction of a nursing faculty member. May be repeated for a total of 6-9 hours. Online, Internet, or Web-based Thesis (1-3 credit hours)

**RN to MSN PROGRAM**

**Purpose**
The purpose of the RN to MSN program is to provide associate degree and diploma RNs a flexible program of study that will allow them to continue to meet work and other obligations while pursuing graduate education. Graduates of the RN to MSN program will meet the standards and program outcomes for baccalaureate and master’s nursing education and receive the MSN degree. After successful completion of N521-1 (Concepts of Professional Nursing Practice), students will be awarded 34 hours of validation credit, applicable toward hours required for the MSN degree, for other nursing courses (taken in an associate or diploma program) equitable to UMMC School of Nursing courses. The courses for most tracks are online or hybrid. The Family Nurse Practitioner (FNP) and the Adult-Gerontology Acute Care Nurse Practitioner (AGACNP) tracks may have some specialty courses that require meeting on the Jackson campus a maximum of four times during each semester. In addition, the first 45 clinical hours and an additional 200 clinical hours for the AGACNP track must occur at UMMC. The remaining 385 clinical hours may occur at UMMC or at another approved site with an approved preceptor. Graduates of all nurse practitioner tracks meet eligibility requirements for advanced practice certification by national certifying organizations and by the Mississippi Board of Nursing. The RN to MSN program is classified as online.

**Prerequisite Courses (62 credit hours)**
The lower division is comprised of the following courses, which are prerequisites for the upper division of the RN to MSN program.

**Natural Sciences and Mathematics:** (26 credit hours) Science survey courses or courses for non-science majors are not acceptable for transfer credit. Anatomy and Physiology courses should be taken within the last 10 years. However, applicants who have been in continuous nursing practice may request a waiver of this requirement from the associate dean.

Microbiology-(4 hours) one course with a laboratory
Human Anatomy and Physiology-(8 hours) two courses in sequence with labs which include the study of structure and function of the human body.

College Algebra or higher level math-(3 hours)

Statistics-(3 hours) must include an introduction to descriptive and inferential statistics, including measures of central tendency, variability, correlation, t tests, z tests, ANOVA, chi-square, hypothesis testing, p levels, and confidence intervals.

Natural Science or Math electives (8 hours may be natural science or math electives). Courses in nutrition or in computer use may be used as Natural Science/Math electives.

**Suggested Courses for Natural Science/Math Electives**
- Any math higher than College Algebra
- Biology (for science majors)
- Chemistry (for science majors)
- Genetics

**Psychosocial Sciences:** (18 credit hours)

General Psychology-(3 hours)

Introductory Sociology-(3 hours)

Human Growth and Development through the Life Cycle (3 hours):
- a. In a senior college, Developmental Psychology, to include development from infancy through old age; or
- b. In a junior or community college, Human Growth and Development, to include development from infancy through old age.

**Psychosocial Science Electives**-(9 hours)

**Suggested Courses for Psychosocial Science Electives**
- Abnormal Psychology or other psychology courses
- Anthropology
- Economics
- Geography
- History
- Political Science
- Social Problems or other sociology courses
- Nutrition

**Humanities and Fine Arts:** (18 credit hours)

English Composition-(6 hours)

Speech-(3 hours)

Humanities and Fine Arts electives-(9 hours)

**Suggested Courses for Humanities and Fine Arts Electives**
- Art
- Drama
- Music
- Philosophy
- Survey of Religion
- Literature
- Theatre
- Foreign Languages
- History
- Journalism

**Unacceptable Courses**

None of the required courses listed, described, or recommended above may be met by the following: courses in physical training, military science, or dogmatic religion; courses in mathematics or science designed for non-science majors; course credit granted without college level testing; or courses taken from a college or university that was not accredited by a regional accrediting agency.

**Admission Criteria**

1. A completed application;
2. Completion of required prerequisite courses with a minimum grade of C in each course;
3. An associate degree or diploma in nursing from a program that includes clinical practice courses in nursing, that is accredited by one of the regional accrediting agencies, and that holds professional accreditation by CCNE or ACEN;
4. A minimum cumulative GPA of 3.0 on a 4.0 scale;
5. One year of experience as a RN is required for all nurse practitioner tracks prior to beginning the program. Applicants for the Adult-Gerontology Acute Care Nurse Practitioner track must have at least one year experience as a RN in critical/emergency care prior to beginning the program;
6. Evidence of current unrestricted licensure (RN) to practice in the United States and licensure/privilege to practice in Mississippi;
7. New associate degree graduates must successfully complete the NCLEX-RN® examination and become licensed as a registered nurse (RN) by the end of their first semester of course work;
8. Preadmission Counseling (completed after the application is reviewed by the Graduate Admissions and Progression Committee);
9. Satisfactory scores on the Graduate Record Examination (GRE), including a score of 3.5 or higher on the analytical section; and,
10. Official transcripts from all schools attended.
SUGGESTED PLANS OF STUDY

FAMILY NURSE PRACTITIONER
RN to MSN PLAN OF STUDY

SUMMER
N521-1: Concepts of Professional Nursing Practice 4
N533: Portal to Research Design and Methods 1
N526: Portal to Advanced Health Assessment 1
N538: Healthcare Leadership and Collaboration 3

FALL
N524: Portal to Advanced Physiology/Pathophysiology 2
N527: Health Promotion in Populations 2
N610: Reproductive Health for Advanced Nursing Practice 3
N633: Research Design and Methods for Advanced Nursing Practice 2
N677: Advanced Health Assessment 3

SPRING
N637: Advanced Physiology/Pathophysiology 3
N666: Clinical Pharmacotherapeutics 3
N531-1: Health IT and Patient Safety 3
N612: Therapeutic Management of the Pediatric Patient 2
N685-1: Practicum in Primary Care I (90 clinical hours) 2

SUMMER
ID630: Health Care Quality Improvement 3
N617: Informatics and Health Care Technology 1
N682-1: Therapeutic Management in Primary Care I 2
N685-2: Practicum in Primary Care II (135 clinical hours) 3

FALL
N632: Discipline of Nursing 2
N682-2: Therapeutic Management in Primary Care II 2
N685-3: Practicum in Primary Care III (180 clinical hours) 4
N669: Role Development and Role Enactment for Advanced Role Practice in Nursing 3

SPRING
N607-1: Health Policy and Population Health 2
N652-1: Finance and Leadership in Health Care Systems 3
N682-3: Therapeutic Management in Primary Care Management III 2
N685-4: Practicum in Primary Care IV (225 clinical hours) 5

Total Hours 66

NURSE EDUCATOR
RN to MSN PLAN OF STUDY

SUMMER
N521-1: Concepts of Professional Nursing Practice 4
N533: Portal to Research Design and Methods 1
N538: Healthcare Leadership and Collaboration 3

FALL
N524: Portal to Advanced Pathology/Pathophysiology 2
N527: Health Promotion in Populations 2
N613: Foundations of Nurse Educator Role and Teaching Methods 3
N632: Discipline of Nursing 2
N633: Research Design and Methods for Advanced Nursing Practice 2

Total Hours 11
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**Total Hours**

54

**ADULT-GERONTOLOGY ACUTE CARE NURSE PRACTITIONER**

**RN to MSN PLAN OF STUDY**

**SUMMER**

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<td>Application and Interpretation of Adult-Gerontology Acute Care Diagnostic Modalities</td>
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### SPRING
- **N601-4** Practicum in Adult-Gerontology Acute Care Nurse Practitioner IV (225 clinical hours) 5
- **N607-1** Health, Policy and Population Health 2
- **N652-1** Finance and Leadership in Health Care Systems 3

**Total Hours** 10

### NURSING AND HEALTH CARE ADMINISTRATOR
#### RN to MSN PLAN OF STUDY

**SUMMER**
- **N521-1** Concepts of Professional Nursing Practice 4
- **N533** Portal to Research Design and Methods 1
- **N538** Healthcare Leadership and Collaboration 3

**FALL**
- **N527** Health Promotion in Populations 2
- **N540** Portal to Fiscal and Operations Management 1
- **N632** Discipline of Nursing 2
- **N652-1** Finance and Leadership in Health Care Systems 2

**SPRING**
- **N531-1** Health IT and Patient Safety 3
- **N633** Research Design and Methods for Advanced Nursing Practice 2
- **N641** Fiscal and Operations Management 3
- **N545** Portal to Organizational Leadership and Communication 2

**SUMMER**
- **ID630** Health Care Quality Improvement 3
- **N640** Project Management 3
- **N646** Organizational Leadership and Communication 3

**FALL**
- **N644** Human Resource Management 3
- **N607-1** Health Policy and Population Health 2
- **N658** Strategic Management 3

**SPRING**
- **N659** Residency in Nursing and Health Care Administrator Role (525 clinical hours) 7
- **N696** Directed Study in Management Research 3

**Total Hours** 53

### ADULT-GERONTOLOGY NURSE PRACTITIONER (primary care)
#### RN to MSN PLAN OF STUDY

**SUMMER**
- **N521-1** Concepts of Professional Nursing Practice 4
- **N533** Portal to Research Design and Methods 1
- **N526** Portal to Advanced Health Assessment 1
- **N538** Healthcare Leadership and Collaboration 3

**FALL**
- **N524** Portal to Advanced Physiology/Pathophysiology 2
- **N610-2** Reproductive Health for Adult Practitioners 2
- **N633** Research Design and Methods for Advanced Nursing Practice 2
- **N677** Advanced Health Assessment 3
- **N527** Health Promotion in Populations 2

**Total Hours** 11
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**FAMILY PSYCHIATRIC MENTAL HEALTH NURSE PRACTITIONER**

RN to MSN PLAN OF STUDY

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SPRING
N652-1  Finance and Leadership in Health Care Systems  3
N687-3  Clinical Management of Families and Groups with Mental Health Problems III  2
N686-3  Practicum in Clinical Management of Families and Groups with Mental Health Problems III (270 clinical hours)  6

Total Hours  62

MASTER OF SCIENCE IN NURSING
The University of Mississippi Medical Center School of Nursing, located on the only health science campus in Mississippi, provides an excellent environment for learning. The School of Nursing shares a 164 acre campus with five other professional schools: Medicine, Health Related Professions, Dentistry, Pharmacy and Graduate Studies in the Health Sciences. The graduate program is affiliated with several hundred hospitals, community health centers, health departments, private practice and community clinics, and schools, affording the student extensive opportunity for interdisciplinary collaboration in clinical practice and research.

Classrooms at all sites are equipped with distance learning technology. The courses for most tracks are offered online or in a hybrid format. Online courses meet synchronously or asynchronously and may require attendance at proctored examination or lab experiences. Hybrid courses require the student to be on campus up to four times during the semester. The Family Nurse Practitioner, Neonatal Nurse Practitioner, Primary/Acute Care Pediatric Nurse Practitioner, and the Adult-Gerontology Acute Care Nurse Practitioner tracks may have some specialty courses that require meeting on the Jackson campus several times during the semester, primarily on weekends. Contact the track director for information about specific courses. In addition, the first 45 clinical hours and an additional 200 clinical hours for the AGACNP track must occur at UMMC. The remaining 385 clinical hours may occur at UMMC or at another approved site with an approved preceptor.

The University of Mississippi Medical Center School of Nursing has eight tracks leading to the Master of Science in Nursing degree: Nurse Educator, Nursing and Health Care Administrator, Family Nurse Practitioner, Adult-Gerontology Acute Care Nurse Practitioner, Adult-Gerontology Nurse Practitioner (primary care), Family Psychiatric Mental Health Nurse Practitioner, Neonatal Nurse Practitioner, and Primary/Acute Care Pediatric Nurse Practitioner (dual role). Preparation for advanced practice roles includes core content in research, informatics, finance and leadership, quality improvement, health policy, and theoretical foundation of the discipline. In addition, each track has specialized courses appropriate for the role. Part-time study is available. Candidates who successfully complete the program are awarded the Master of Science in Nursing degree. Graduates of all nurse practitioner tracks meet eligibility requirements for advanced practice certification by national professional organizations and by the Mississippi Board of Nursing. To be considered full time, the graduate student must be registered for at least 9 hours during the semester. The following MSN tracks are classified as online: AGACNP, AGNP, FNP, NED, NHCA, and PMHNP.

Purpose
The purposes of the master’s program are to: 1) prepare baccalaureate nurses for advanced practice and 2) provide a solid foundation for additional graduate study.

MASTER’S PROGRAM OUTCOMES
Background for Practice from Sciences and Humanities
Clinical Prevention and Population Health for Improving Health
Master’s Level Nursing Practice
1. Apply broad, organizational, patient-centered, ethical, and culturally responsive concepts into daily practice.
2. Demonstrate theoretical knowledge from nursing and other disciplines to advanced role practice in nursing for analysis of clinical problems, illness prevention, and health promotion strategies.
3. Utilize quality processes to evaluate outcomes of aggregates and monitor trends in healthcare.

Organizational and Systems Leadership
Quality Improvement and Safety
4. Analyze the impact of systems on patient outcomes.
5. Demonstrate leadership in providing quality cost-effective care, with management of human, fiscal, and physical resources.

Translating and Integrating Scholarship into Practice
6. Apply translational research in the practice setting through problem identification, systematic inquiry, and continuous improvement processes.

Informatics and Healthcare Technologies
7. Utilize current technologies to deliver, enhance, and document care across multiple settings to achieve optimal outcomes.

Health Policy and Advocacy
8. Articulate change within organizational structures of various health care delivery systems to impact policy, financing, and access to quality health care.

Interprofessional Collaboration for Improving Patient and Population Health Outcomes
9. Lead and coordinate interdisciplinary teams across care environments to reduce barriers, facilitate access to care, and improve health outcomes.
APPLICATION PROCEDURE
All correspondence regarding admission should be addressed to the Office of Student Records and Registrar, The University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505. A nonrefundable application fee of $25 must accompany each application. All transcripts and documents submitted in support of an application become the property of the University of Mississippi Medical Center and cannot be returned or forwarded to another school or individual. Applications are accepted beginning July 1 of the year prior to the desired year of enrollment and continue until the deadline for the particular term of attendance. Applicants who are enrolled in the final semester of a baccalaureate nursing program may be considered.

ADMISSION CRITERIA
Admission to the master’s program is based on evaluation of the following by the Graduate Admission and Progression Committee.
1. A complete application;
2. Baccalaureate degree in nursing from an institution that is accredited by a regional accrediting body, that holds professional accreditation by CCNE or ACEN, and which included upper division theory and clinical practice courses in nursing;
3. A cumulative GPA of 3.0 or higher on a 4.0 scale;
4. Undergraduate or graduate level statistics course;
5. One year of experience as a RN is required for all nurse practitioner tracks prior to beginning the program. Applicants for the Adult-Gerontology Acute Care Nurse Practitioner track must have at least one year experience as a RN in critical/emergency care prior to beginning the program;
6. Evidence of current unrestricted licensure (RN) to practice in the United States and licensure/privilege to practice in Mississippi;
7. Satisfactory scores on the GRE, including a score of 3.5 or higher on the analytical section;
8. Official transcripts from all schools attended;
9. Graduates of foreign schools whose academic language is not English: The Test of English as a Foreign Language (TOEFL) exam is required to demonstrate competence in written and spoken English;
10. Pre-admission counseling, (completed after the application is reviewed by the graduate admission and progression committee).

In unusual instances, the Graduate Admission and Progression Committee may consider applicants who do not meet the admission criteria. The School of Nursing reserves the right to offer programs based on the number of acceptable applicants admitted. When a program is not offered due to limited enrollment, the applicant will be notified and other admission options will be explored.

Residence
Depending upon the MSN track, a minimum of one academic year of course work with continuous residence is required. The total number of hours must be equivalent to a full-time plan of study for two or three semesters.

Time Limit for Degree Requirements
All requirements for the MSN degree must be completed within a six-year time span.

SUGGESTED PLANS OF STUDY
ADULT-GERONTOLOGY NURSE PRACTITIONER (primary care)
The Adult-Gerontology Nurse Practitioner (primary care) track (AGNP) provides graduate students and/or currently practicing advanced practice nurses with specialization in the care of adults and older adults. The curriculum prepares the student to: 1) integrate the principles of aging, health, and specialized advanced practice nursing into evidence-based clinical management of adults, their families, and communities of diverse cultures in rural settings; 2) demonstrate comprehensive assessments, planning, and interventions with the complex health care problems of adults and older adults and their caregivers in a variety of rural health care settings; and 3) use critical thinking and decision-making skills in evidence-based clinical management of wellness, prevention, maintenance, common symptoms and syndromes, and common illnesses affecting adults and older adults and their families in rural settings. The clinical component consists of a minimum of 630 hours of guided experience in select areas under the mentorship of an advanced practice nurse or a physician.

PLAN OF STUDY
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<td>Reproductive Health for Adult Practitioners</td>
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SPRING
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>N637</td>
<td>Advanced Physiology/Pathophysiology</td>
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<tr>
<td>N633</td>
<td>Research Design and Methods for Advanced Nursing Practice</td>
<td>2</td>
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<tr>
<td>N666</td>
<td>Clinical Pharmacotherapeutics</td>
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SUMMER
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<tr>
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<tr>
<td>N627-4</td>
<td>Clinical Management of Adults and Older Adults I</td>
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<tr>
<td>N628-4</td>
<td>Practicum in Clinical Management of Adults and Older Adults I (180 clinical hours)</td>
<td>4</td>
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<tr>
<td>N617</td>
<td>Informatics and Health Care Technology</td>
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<tr>
<td>ID630</td>
<td>Health Care Quality Improvement</td>
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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
FAMILY NURSE PRACTITIONER

The Family Nurse Practitioner track (FNP) is designed to prepare nurses to deliver primary health care to adults and families. The didactic curriculum provides students with advanced knowledge and skills in biophysiological science, pharmacotherapeutics, primary care concepts, advanced assessments, and diagnostic skills as a basis for clinical practice. The clinical component consists of a minimum of 630 hours of guided experience under the mentorship of an advanced practice nurse or a physician. Plans of study are designed by faculty with individual consideration given to students’ goals and geographic locations.

PLAN OF STUDY

FALL

N632 Discipline of Nursing 2
N677 Advanced Health Assessment 3
N610 Reproductive Health for Advanced Nursing Practice 3

SPRING

N637 Advanced Physiology/Pathophysiology 3
N633 Research Design and Methods for Advanced Nursing Practice 2
N612 Therapeutic Management of the Pediatric Client 2
N685-1 Practicum in Primary Care I (90 clinical hours) 2
N666 Clinical Pharmacotherapeutics 3

SUMMER

N682-1 Therapeutic Management in Primary Care I 2
N685-2 Practicum in Primary Care II (135 clinical hours) 3
ID630 Health Care Quality Improvement 3
N617 Informatics and Health Care Technology 1

FALL

N682-2 Therapeutic Management in Primary Care II 2
N685-3 Practicum in Primary Care III (180 clinical hours) 4
N652-1 Finance and Leadership in Health Care Systems 3
N669 Role Development and Role Enactment for Advanced Role Practice in Nursing 3

SPRING

N607-1 Health Policy and Population Health 2
N682-3 Therapeutic Management in Primary Care III 2
N685-4 Practicum in Primary Care IV (225 clinical hours) 5

Total Hours 50

ADULT–GERONTOLOGY ACUTE CARE NURSE PRACTITIONER

The Adult-Gerontology Acute Care Nurse Practitioner track (AGACNP) is designed to prepare nurses to deliver acute and/or critical care to adult and older adult clients in a variety of settings. The didactic curriculum will provide students with advanced knowledge and skills in biophysiological science, pharmacotherapeutics, acute and/or critical care concepts, advanced assessments and diagnostic skills as a basis for clinical practice. The clinical component consists of a minimum of 630 hours of guided experience in select areas under the mentorship of an advanced practice nurse or a physician. Plans of study are designed by faculty with individual consideration given to students’ goals and geographic locations.
### PLAN OF STUDY

#### FALL
- N677 Advanced Health Assessment 3
- N652-1 Finance and Leadership in Health Care Systems 3
- N632 Discipline of Nursing 2
- N600 Application and Interpretation of Adult-Gerontology Acute Care Diagnostic Modalities 2

#### SPRING
- N601-1 Practicum in Adult-Gerontology Acute Care Nurse Practitioner I (Clinical 45 hours) 1
- N666 Clinical Pharmacotherapeutics 3
- N637 Advanced Physiology/Pathophysiology 3
- N633 Research Design and Methods for Advanced Nursing Practice 2

#### SUMMER
- N601-2 Practicum in Adult-Gerontology Acute Care Nurse Practitioner II (Clinical 135 hours) 3
- ID630 Health Care Quality Improvement 3
- N617 Informatics and Health Care Technology 1
- N605-1 Adult-Gerontology Acute Care Assessment, Management & Evaluation I 2

#### FALL
- N601-3 Practicum in Adult-Gerontology Acute Care Nurse Practitioner III (Clinical 225 hours) 5
- N605-2 Adult-Gerontology Acute Care Assessment, Management & Evaluation II 2
- N669 Role Development and Role Enactment for Advanced Role Practice in Nursing 3

#### SPRING
- N607-1 Health Policy and Population Health 2
- N601-4 Practicum in Adult-Gerontology Acute Care Nurse Practitioner IV (Clinical 225 hours) 5

**Total Hours**: 45

### NEONATAL NURSE PRACTITIONER

The Neonatal Nurse Practitioner (NNP) is prepared to deliver comprehensive care to pre-term and full-term infants. The curriculum emphasizes advanced nursing care of newborns and infants from birth through the first two years of life. The spectrum of health from promotion of wellness to management of acute and chronic illness in a variety of settings is incorporated into the program. The clinical component consists of a minimum of 630 hours of guided experience in select settings under the mentorship of an advanced practice nurse or a physician.

#### PLAN OF STUDY

#### FALL
- N632 Discipline of Nursing 2
- N633 Research Design and Methods for Advanced Nursing Practice 2
- N652-1 Finance and Leadership in Health Care Systems 3
- N677 Advanced Health Assessment 3

#### SPRING
- N637 Advanced Physiology/Pathophysiology 3
- N666 Clinical Pharmacotherapeutics 3
- N618 Focus on Advanced Nursing Practice Specialization – Neonatal 2

#### SUMMER
- N617 Informatics and Health Care Technology 1
- ID630 Health Care Quality Improvement 3
- N629-1 Advanced Neonatal Nursing I 3
- N634-1 Practicum I – Neonatal Nurse Practitioner I (90 clinical hours) 2

#### FALL
- N669 Role Development and Role Enactment for Advanced Role Practice in Nursing 3
- N629-2 Advanced Neonatal Nursing II 4
- N634-2 Practicum II – Neonatal Nurse Practitioner II (135 clinical hours) 3
### SPRING
- N607-1: Health Policy and Population Health
- N629-3: Advanced Neonatal Nursing III
- N634-3: Practicum III – Neonatal Nurse Practitioner III (135 clinical hours)

### SUMMER
- N634-4: Residency Program (270 clinical hours)

**Total Hours:** 53

### PRIMARY/ACUTE CARE PEDIATRIC NURSE PRACTITIONER (DUAL ROLE)

The dual role Primary/Acute Care Pediatric Nurse Practitioner (PACPNP) is prepared to provide advanced care in both primary and acute care settings. The curriculum emphasizes advanced nursing care of infants, children, and adolescents with acute and complex health disorders. The spectrum of health from promotion of wellness to management of acute and chronic illness in a variety of settings is incorporated into the program. The clinical component consists of a minimum of 990 hours of guided experience in select settings under the mentorship of an advanced practice nurse or a physician.

**PLAN OF STUDY**

#### FALL
- N632: Discipline of Nursing 2
- N633: Research Design and Methods for Advanced Nursing Practice 2
- N652-1: Finance and Leadership in Health Care Systems 3
- N677: Advanced Health Assessment 3
- N660: Focus on Advanced Nursing Practice Specialization – Pediatrics 2

**SPRING**
- N637: Advanced Physiology/Pathophysiology 3
- N666: Clinical Pharmacotherapeutics 3
- N612: Therapeutic Management of the Pediatric Client 2
- N661-1: Practicum for Pediatrics I (180 clinical hours, primary care) 4

**SUMMER**
- N617: Informatics and Health Care Technology 1
- ID630: Health Care Quality Improvement 3
- N612-2: Therapeutic Management of the Pediatric Client II (acute care) 2
- N661-2: Practicum for Pediatrics II (180 clinical hours) 4

**FALL**
- N669: Role Development and Role Enactment for Advanced Role Practice in Nursing 3
- N612-3: Therapeutic Management of the Pediatric Client III (chronic care) 3
- N661-3: Practicum for Pediatrics III (180 clinical hours) 4

**SPRING**
- N607-1: Health Policy and Population Health 2
- N612-4: Therapeutic Management of the Pediatric Client IV (critical care) 2
- N661-4: Practicum for Pediatrics IV (180 clinical hours) 4

**SUMMER**
- N661-5: Residency Program (270 clinical hours) 7

**Total Hours:** 59

### FAMILY PSYCHIATRIC MENTAL HEALTH NURSE PRACTITIONER

The Family Psychiatric Mental Health Nurse Practitioner (PMHNP) is prepared to provide advanced mental health care. The curriculum assists students to develop skills for independent and interdependent decision-making and direct accountability for clinical judgment. The required skills include comprehensive physical and mental health assessment, diagnosis, and psychotherapeutic and pharmacological interventions. The graduate will be able to participate in and use research, help to develop and implement health policy, implement educational programs, and provide case management and consultation in his/her area of expertise.

**PLAN OF STUDY**

#### FALL
- N632: Discipline of Nursing 2
- N652-1: Finance and Leadership in Health Care Systems 3
- N677: Advanced Health Assessment 3
### SPRING
- N637  Advanced Physiology/Pathophysiology  3
- N633  Research Design and Methods for Advanced Nursing Practice  2
- N666  Clinical Pharmacotherapeutics  3

### SUMMER
- N686-1  Practicum in Clinical Assessment of Persons with Mental Health Problems I - Family (180 clinical hours)  4
- N687-1  Clinical Assessment of Persons with Mental Health Problems I - Family  2
- N617  Informatics and Health Care Technology  1
- ID630  Health Care Quality Improvement  3

### FALL
- N669  Role Development and Role Enactment for Advanced Role Practice in Nursing  3
- N687-1  Clinical Management of Individuals with Mental Health Problems II - Family  3
- N686-2  Practicum in Clinical Management of Individuals with Mental Health Problems II - Family (180 clinical hours)  4

### SPRING
- N607-1  Health Policy and Population Health  2
- N687-3  Clinical Management of Families and Groups with Mental Health Problems III  2
- N686-3  Practicum in Clinical Management of Families and Groups with Mental Health Problems III - (270 clinical hours)  6

**Total Hours**  46

**NURSE EDUCATOR**

A nurse prepared at the master’s level in the Nurse Educator track (NED) is able to serve important functions as an expert health agency educator and as a faculty member in a nursing education program. To achieve this goal, the Nurse Educator track provides the graduate learner with the knowledge, skills, and abilities of specialty nursing practice. The Nurse Educator curriculum provides the learner with a foundation to pursue doctoral education. All track-specific courses are offered online. Others are online or hybrid courses.

### PLAN OF STUDY

#### FALL
- N677  Advanced Health Assessment  3
- N632  Discipline of Nursing  2
- N652-1  Finance and Leadership in Health Care Systems  3
- N613  Foundations of Nurse Educator Role and Teaching Methods  3

#### SPRING
- N637  Advanced Physiology/Pathophysiology  3
- N614-1  Nurse Educator Practicum I (90 clinical hours)  2
- N666  Clinical Pharmacotherapeutics  3
- N607-1  Health Policy and Population Health  2
- N633  Research Design and Methods for Advanced Nursing Practice  2

#### SUMMER
- N615-1  Educational Technology and Health Care Informatics  3
- ID630  Health Care Quality Improvement  3
- N620-1  Direct Care Role of the Nurse Educator Practicum II (90 clinical hours)  2

#### FALL
- N616-1  Curriculum and Program Development and Evaluation  3
- N625  Nurse Educator Practicum III (180 clinical hours)  4

**Total Hours**  38
NURSING AND HEALTH CARE ADMINISTRATOR

The Nursing and Health Care Administrator track (NHCA) provides a comprehensive study of concepts, theories, and research for effective management of health care systems. Students immerse themselves in courses that provide experiential learning in finance, management, organization administration, policy, and strategic management. The program culminates in a full-time-equivalent residency in which students integrate practice, theory, and research with a senior administrator in health care. The plan of study is flexible and can be adapted to student needs during the year. The residency and accompanying directed study are the final components of the program, and the student may enroll in these during spring, summer, or fall terms. Part-time and full-time plans of study are available.

PLAN OF STUDY

FALL
N632 Discipline of Nursing 2
N644 Human Resource Management 3
N658 Strategic Management 3
N652-1 Finance and Leadership in Health Care Systems 3

SPRING
N641 Fiscal and Operations Management 3
N607-1 Health Policy and Population Health 2
N633 Research Design and Methods for Advanced Nursing Practice 2

SUMMER
ID630 Health Care Quality Improvement 3
N646 Organizational Leadership and Communication 3
N640 Project Management (or another approved elective) 3

FALL 2
N659 Residency in the Nursing and Health Care Administrator Role (525 clinical hours) 7
N696 Directed Study in Management Research 3

Total Hours 37

COURSE DESCRIPTIONS1 (500- and 600-level courses)

1Courses of instruction and hours are subject to change. The School of Nursing reserves the right not to offer some courses because of low enrollment.

N 521-1. Concepts of Professional Nsg Practice. This bridge course between basic nursing education and advanced practice nursing education examines the professional roles of provider of care, designer/manager/coordinator of care and member of the profession. Within these roles, specific role components inherent to professional nursing practice are explored. This course provides students' opportunity to master writing skills and to analyze professional writings to allow them to address relevant issues within today's healthcare delivery system. This online course is delivered utilizing asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (4 credit hours)

N 524. Portal to Adv Physiology/Pathophysiology. This course provides an introduction to advanced physiology and pathophysiology. It facilitates seamless transition for the RN-MSN student into the master's level Advanced Physiology/Pathophysiology. Course content includes an introduction to cell biology and genetics with a focus on application of the content to disease processes. Specific cellular and molecular mechanisms underlying the pathophysiological processes of diseases in all body systems will be highlighted. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2 credit hours)

N 526. Portal to Advance Health Assessment. This course provides an introduction to advanced health assessment. This intensive 15 clock hour didactic course facilitates seamless transition for the associate degree nurse into the master's level course Advanced Health Assessment. Course content focuses on an overview of the client interviewing skills with a focus on the principles of clinical observation and communication. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2 credit hours)

N 527. Health Promotion in Populations. The course focuses on understanding the forces shaping community and global health patterns and the impact of these global processes on societies. Students will review strategies to assess, plan, implement and evaluate population-focused programs for health promotion and disease prevention of individuals, families, groups, communities and populations. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2 credit hours)

N 528. Leadership and Management. This course describes the functions and roles of management and leadership in professional nursing. Decision making, communication, motivation changes, theories, managed care, and leadership strategies are presented and discussed to enhance the development of a beginning nurse manager. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

N 531-1. Hlth Information Technology & Pt Safety. This course provides a comprehensive introduction to the use of health information technology, patient safety, and health care quality improvement. Emphasis is placed on technology-based health applications that enhance the efficacy of the nursing process, as well as the role of the nurse in improving the quality of health care through designing, implementing, and evaluating evidence-based patient safety interventions and strategies. Confidentiality, ethical, and legal issues related to the use of electronic health records will be considered. This online course is delivered utilizing Asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)
N 533. Portal to Research Design and Methods. This course provides an introduction to research facilitating seamless transition for the RN to MSN students into the master’s level research course. Course content focuses on beginning skills and approaches to reading and evaluating research studies. This online course is delivered utilizing asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (1 credit hour)

N 538. Healthcare Leadership and Collaboration. This course describes the functions and roles of management and leadership in professional nursing. Decision making, communication, motivation changes, theories, managed care, and legal/ethical issues are presented and discussed to enhance the development of a beginning nurse manager. This online course is delivered utilizing asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

N 540. Portal to Fiscal & Operations Mgmt. In this course students are introduced to fiscal and operations management. Students will learn about operations management as a business function, the transformation process, key trends impacting health care organizations, key strategies for managing cost and the potential impact of fiscal and operations management on the patient experience. This online course is delivered utilizing asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (1 credit hour)

N 545. Portal to Organizational Ldrshp & Comm. This course is designed to increase the student's knowledge and application of organizational principles and communication models. This intense portal will introduce the student to application of systems thinking framework in analyzing organizational structure, culture and communication framework and the impact of these elements on organizational outcomes. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2 credit hours)

N 600. App & Intrap Adt Geri Acute Care Diag Mod. This course provides the theoretical basis for the application and interpretation of diagnostic modalities used in management of the acute care patient. Emphasis is placed on selected laboratory and radiology studies and interpretation of electrocardiogram and pulmonary function tests. Traditional Lecture (2 credit hours)

N 601-1. Practicum in Adult Geri Acute Care NP I. This supervised 45 hours clinical practice course offered in a variety of settings allows the student the opportunity to integrate and practice advanced health assessment, diagnostic reasoning, decision making for the collaborative management of patients with selected acute health problems such as cardiovascular disorders, diabetes, renal diseases, respiratory alterations, etc. Students are precepted by physicians/nurse practitioners under the direction of faculty. Traditional Clinical Rotation (1 credit hour)

N 601-2. Pract in Adult Geri Acute Care NP II. This supervised 135 hours clinical practice in specialized settings allows the student the opportunity to integrate and practice advanced health assessment, diagnostic reasoning and decision making for the collaborative management of adult gerontology clients with complex critical health problems. The student selects a clinical area of specialization and, through a learning contract developed with the faculty, achieves the course objectives. Students are precepted by physicians/nurse practitioners under the direction of the course faculty. Traditional Clinical Rotation (1-3 credit hours)

N 601-3. Pract in Adlt Geri Acute Care NP III. This supervised 225 hours clinical practice in critical care settings allows students the opportunity to integrate and practice advanced health assessment, diagnostic reasoning and decision making, for the collaborative management of patients with complex critical health problems such as multi-system failure, cardiac and or respiratory failure, brain attack or renal failure. The utilization of advanced technology as a diagnostic and management tool is emphasized. Students are precepted by physicians/acute care nurse practitioners under the direction of faculty. Settings include coronary care units, surgical intensive care units, neurology intensive care units, emergency departments, etc. Traditional Clinical Rotation (5 credit hours)

N 601-4. Pract in Adlt Geri Acute Care NP IV. This supervised 225 hours clinical practice in acute/ critical care allows the students the opportunity to refine and evaluate nursing management of patients with complex health problems. The focus of the clinical is to perfect their clinical skills including: diagnostic reasoning and decision making. This along with the clinical seminar IV is the capstone experience for this role practice. Students are precepted by physicians/acute care nurse practitioners under the direction of faculty. Settings include coronary care units, surgical intensive care units, neurology intensive care units, emergency department, etc. Traditional Clinical Rotation (5 credit hours)

N 605-1. Adlt Geri Acute Care Asmt Mgt & Eval I. This course provides the theoretical basis for advanced assessment, diagnosis, reasoning and decision making for the collaborative management and evaluation for advanced nursing practice. Focus will be on the collaborative management of clients with acute health problems such as: diabetes, hypertension, acute renal failure, pulmonary diseases, endocrine problems, and neurological disorders etc. Traditional Lecture (2 credit hours)

N 605-2. Adlt Geri Acute Care Asmt Mgt & Eval II. This course provides the theoretical basis for assessment, diagnosis reasoning and decision making, in the collaborative management for advanced nursing practice. Focus will be on the collaborative management and evaluation of clients with complex acute health problems such as: acute respiratory failure, heart failure, brain attack, post surgical complications, pre, intra and post partum complications, etc. Traditional Lecture (2 credit hours)

N 607-1. Health Policy & Population Health. This is a role support course to explore and analyze interrelations of societal values and issues, political process, politics, and development of health policy and its impact on population health. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2 credit hours)

N 610. Reproductive Health for Advanced Pract. This didactic course provides the theoretical basis for assessing and managing health care patterns in women for advanced role practice in nursing as a nurse practitioner. Emphasis is placed on health promotion, screening, and prevention of illness, and management of obstetric care and of problems common in the health care of women. Online, Internet, or Web-based Lecture (2 credit hours)

N 610-2. Reproductive Hlth for Adult NP. This didactic course provides the theoretical basis for assessing and managing reproductive health care patterns in men and women for advanced role practice in nursing as an adult gerontology nurse practitioner. Emphasis is placed on health promotion, screening, prevention of illness, and management of problems common in the reproductive health care of men and women. Online, Internet, or Web-based Lecture (2 credit hours)
N 610-3. Childbearing Hlth Care for the Adv NP. This didactic course provides the theoretical basis for assessing and managing childbearing conditions in women for advanced role practice in nursing. Emphasis is placed on health promotion, screening, prevention of illness, and management of problems common in the childbearing phases of a woman’s life including preconception, prenatal, and postpartal care. Online, Internet, or Web-based Lecture (1 credit hour)

N 612. Therapeutic Management Pediatric Client. This course provides a foundation and clinical application of the care of clients from birth through adolescence. Topics will include well child management in addition to management of selected illnesses common to this age group. Family theory and its relationship to health care management will be explored. Online, Internet, or Web-based Lecture (2 credit hours)

N 612-2. Therapeutic Mgmt of Pediatric Client II. This role support course provides the theoretical basis for advanced assessment, diagnostic reasoning, and collaborative management of pediatric health problems in the pediatric acute care setting as a pediatric nurse clinician. Emphasis is placed on the collaborative management of pediatric clients with acute health problems. Traditional Lecture (2 credit hours)

N 612-3. Therapeutic Mgmt of Pediatric Client III. This role support course provides the theoretical basis for advanced assessment, diagnostic reasoning, and collaborative management of pediatric health problems in the pediatric chronic care setting as a pediatric nurse clinician. Emphasis is placed on the collaborative management of pediatric clients with chronic health problems. Traditional Lecture (2 credit hours)

N 612-4. Therapeutic Mgmt of Pediatric Client IV. This role support course provides the theoretical basis for advanced assessment, diagnostic reasoning, and collaborative management of pediatric health problems in the pediatric critical care setting as a pediatric nurse clinician. Emphasis is placed on the collaborative management of pediatric clients with critical health problems. Traditional Lecture (2 credit hours)

N 613. Found of Nurse Educ Role & Teach Meth. This role support course encourages the educator student to use critical thinking, creativity, and research outcomes to develop expertise in the design and delivery of instructional strategies. Learning theories, as well as other selected principles and theories associated with the educator role, are emphasized. The roles of the nurse educator as scholar, collaborator, and educator are explored. Online, Internet, or Web-based Lecture (1-3 credit hours)

N 614-1. Nurse Educator Practicum I (2hr). This course is the first of three practicum courses that gives the graduate learner an opportunity to develop and practice advanced skills in teaching and communication in academic, hospital or community environments with an emphasis in the academic setting. The graduate learner will apply theoretical knowledge in the delivery of nursing education to individuals, groups, families and communities. (90 clinical hours) Traditional Practicum/Internship (2 credit hours)

N 615-1. Education Tech & Health Care Informatics. This course provides an overview of current technologies used for instructional design, delivery, and evaluation in nursing education and technologies used to deliver, enhance, integrate, and coordinate patient care. Opportunities for using and evaluating current nursing education and healthcare technologies are incorporated in the course. Principles of data management for provision of evidence-based care and health education are explored along with the use of electronic health records to improve patient care. Online, Internet, or Web-based Lecture (3 credit hours)

N 616-1. Curriculum & Pgm Development & Eval. This role support course facilitates the application of nursing and educational theories, concepts, and models in the design and evaluation of nursing curricula and programs. Societal influences and acquisition of new knowledge in nursing and related disciplines are analyzed in relation to curriculum and program development and evaluation in nursing. This course provides the student an opportunity to design data collection and analysis strategies used in evaluation processes. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

N 617. Informatics & Health Care Technology. This course provides an overview of the use of technologies to deliver, enhance, integrate, and coordinate care; data management to analyze and improve outcomes of care; health information management for evidence-based care and health education; and facilitation and use of electronic health records to improve patient care. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (1 credit hour)

N 618. Focus on Adv Nsg Pract Spec (Neonatal). This didactic course provides an in depth examination of human genetics, embryologic development and normal physiologic functioning of developing body systems. The structural and functional development of fetal systems during critical growth periods is emphasized, and environmental factors that influence the structural and functional development of fetal systems are discussed. This course will build a foundation essential for the assessment, planning and evaluation of the health of neonatal clients. Traditional Lecture (2 credit hours)

N 620-1. Direct Care Role of theNs Edu (Prac II). This course is the second of three courses that gives the graduate learner an opportunity to implement and evaluate, and plan the delivery of educational content to individuals, groups and communities. The emphasis is on teaching practice in hospital settings with multiple delivery modalities and measuring outcomes of planned instructional strategies in the practice setting. (90 clinical hours) Traditional Practicum/Internship (2 credit hours)

N 625. Educator Practicum III. This capstone practicum provides the graduate learner opportunities to implement the nurse educator role components of teacher, scholar and collaborator with a preceptor in a selected educational setting. Opportunities are provided to utilize theoretical knowledge of evaluation processes to critically examine curriculum and program components and learning outcomes. Self-assessment and strategies for transition to the educator role are incorporated. The emphasis is on teaching practice in multiple settings with multiple delivery modalities. (180 clinical hours) Traditional Clinical Rotation (4 credit hours)

N 627-4. Clin Mgt of Adults & Older Adults I. This course is focused on the principles of adult health, advanced clinical assessments of adults and older adults of diverse cultures, issues in the care of adults and older adults with emphasis on wellness, prevention, health maintenance, and early health care interventions. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2 credit hours)

N 627-5. Clin Mgt of Adults & Older Adults II. This course is focused on the diagnosis and treatment of acute and chronic illnesses, common geriatric syndromes, and complex health problems of adults and older adults of diverse cultures, including frail and demented older adults in rural settings. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)
This core course is focused on synthesis of theory into evidence-based gerontological advanced nursing practice with adults and older adults and their families of diverse culture, integration of NP roles, and professional practice in selected rural health care systems. This online course is delivered utilizing synchronous and asynchronous distance learning modalities.

**N 628-4. Prac in Clin Mgt Adlts & Older Adlts I.** This 180-hour practicum course is focused on advanced clinical assessments of adults and older adults from diverse cultures, with emphasis on wellness, prevention, maintenance, and early interventions in rural health care settings. Traditional Clinical Rotation (3-4 credit hours)

**N 628-5. Prac in Clin Mgt Adlts & Older Adlts II.** This 180-hour practicum course is focused on the diagnosis and treatment of acute and chronic illnesses, common geriatric syndromes, and complex health problems of adults and older adults of diverse cultures, with emphasis on advanced health care interventions with frail and demented adults and older adults in rural health care settings. Traditional Clinical Rotation (2-4 credit hours)

**N 628-6. Prac in Clin Mgt Adlts & Older Adlts III.** This 270-hour practicum course is focused on synthesis of theory into evidence-based advanced nursing practice with adults and their families of diverse cultures, integration of AGNP roles, and practice management in selected rural health care systems. Traditional Clinical Rotation (4-6 credit hours)

**N 629-1. Advanced Neonatal Nursing I.** This didactic course addresses the complete neonatal assessment process including prenatal thorough neonatal history and neonatal physical examination. Neonatal pharmacology, common neonatal diagnostic and laboratory testing and invasive procedures are also examined as well as family function, dynamics, crisis theory and the grieving process are surveyed. Traditional Lecture (3 credit hours)

**N 629-2. Advanced Neonatal Nursing II.** This didactic course will provide a thorough understanding of the pathophysiology and management of common disease processes in the neonatal (preterm and term infants). This course will focus on the cardiovascular, pulmonary, gastrointestinal/nutrition, renal/genitourinary, and hematologic systems as well as fluid and electrolytes. Furthermore, this course will assist in developing the role of the neonatal nurse practitioner in the neonatal intensive care nursery (NICU), especially in emergency situations. Traditional Lecture (4 credit hours)

**N 629-3. Advanced Neonatal Nursing III.** This didactic course will provide a thorough understanding of the pathophysiology and management of common disease processes in the neonate (preterm and term infants). This course will focus on the endocrine and metabolic, immune, neurobehavioral, musculoskeletal, eyes/ears/nose/throat and dermatologic systems. Furthermore, this course will include discharge planning and follow-up care for the high-risk neonate. Traditional Lecture (4 credit hours)

**N 632. Discipline of Nursing.** This core course involves the study of knowledge shared among members of the discipline, the patterns of knowing and knowledge development, criteria for evaluating knowledge claims, and philosophy of science. The course is aimed at enabling graduate students to become knowledgeable about approaches to the study of disciplines and scientific knowledge development. The inter-relationship between theory, research, and practice is examined through discussions and critique of selected theories relevant for nursing. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (2 credit hours)

**N 633. Research Design & Meth for Adv Nurs Pract.** This core course is focused on understanding and using research designs and methods to support clinical practice. It provides the knowledge base for research problem identification, the ethical conduct of research, synthesis of research literature, critical analysis of research design, methods and data analysis for utilization in practice. In this course, students will identify practice questions for scholarly projects in role-specific courses. Online, Internet, or Web-based Lecture (2 credit hours)

**N 634-1. Practicum I: Neonatal Ns Practitioner.** This clinical role support course provides the theoretical basis for advanced assessment, diagnostic reasoning, and collaborative management of pediatric health problems in the neonatal health care setting as a neonatal nurse practitioner. Traditional Clinical Rotation (2 credit hours)

**N 634-2. Practicum II: Neonatal Ns Practitioner.** This second clinical role support course will continue to provide the theoretical basis for advanced assessment, diagnostic reasoning, and collaborative management of specific health problems in the neonatal health care setting as a neonatal nurse practitioner. Focus of care on the neonates will be related to the cardiovascular, pulmonary, gastrointestinal/nutrition, renal/genitourinary, and hematologic systems as well as emergency situations that arise in the neonate. Traditional Clinical Rotation (3 credit hours)

**N 634-3. Practicum III: Neonatal Ns Practitioner.** This third clinical role support course will continue to provide the theoretical basis for advanced assessment, diagnostic reasoning, and collaborative management of specific health problems in the neonatal health care setting as a neonatal nurse practitioner. Focus of care on the neonates will be related to the endocrine/metabolic, immune, neurobehavioral, musculoskeletal, eyes/ears/nose/throat, and dermatologic systems that arise in the neonate as well as discharge planning and follow-up care for the high-risk neonate and family. Traditional Clinical Rotation (3 credit hours)

**N 634-4. Residency Program.** This final course provides concentrated clinical experiences as students synthesize theory, knowledge, and skills from previous courses within the neonatal nurse practitioner scope of practice. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management with select client groups in collaboration with preceptors and other health care professionals in the critical care setting to further develop expertise relevant to the assessment and management of groups of neonates and infants through 2 years of age. Traditional Practicum/Internship (1-7 credit hours)

**N 637. Advanced Physiology/Pathophysiology.** This course provides the graduate student with an understanding of human physiological and pathophysiological processes. A human body systems approach will be used in the presentation of physiologic concepts and adaptations and alterations which occur in selected disease states across the life span. This course will build a foundation essential for planning and evaluating health care and health care outcomes and serves as a basis for understanding the rationale for assessment and intervention that is taught in the advanced nursing courses. This online course is delivered through synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

**N 640. Project Management.** In this course students learn the principles and fundamentals of project management necessary to achieve objectives in healthcare organizations. Special emphasis will be placed on the application of leadership skills, overcoming objections, achieving buy-in, conflict management, negotiation skills and working with diverse groups of individuals. Through case studies and various
exercises, students will use tools and techniques to gain experience in single and multi-project management. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

N 641. Fiscal and Operations Management. Students learn how effective operations management is essential to achieving a favorable patient care experience and the financial health of an organization. Using quantitative and qualitative measures, students will study how to reduce cost and improve quality related to the conversion of resources into desired healthcare services and products. This online course is delivered through synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

N 644. Human Resource Management. This role support course is designed to increase students' knowledge and application of concepts, theories, and models of human resource management. Emphasis is on the analysis of structural and behavioral systems, human resource process systems, and human resources outcomes. Online, Internet, or Web-based Lecture (3 credit hours)

N 646. Organizational Leadership & Communicat. This role support course is designed to increase students' knowledge and application of constructs, theories, and models in communication for organizational leadership, problem solving, and decision making. The course emphasizes communication as a tool for organizational effectiveness and leadership. The content focuses on self-awareness, knowledge, communication within complex adaptive systems, communicating for organizational effectiveness, facilitating difficult conversations and managing conflict. Online, Internet, or Web-based Lecture (3 credit hours)

N 652-1. Finance & Ldrshp in Hlth Care Systems. The course focuses broadly on leadership principles and their application at the micro and macro levels. This introduction to leadership is followed by the essential accounting and financial management principles and concepts relevant to management of health services organizations. Online, Internet, or Web-based Lecture (3 hours)

N 658. Strategic Management. This role support course is designed to provide the student with the opportunity to describe, analyze, and apply the strategic management process. Emphasis is placed on understanding and using tools and techniques such as SWOT analysis, matrix analysis, flow charts and performance measures to analyze a health care system. Online, Internet, or Web-based Lecture (3 credit hours)

N 659. Residency in Nsg & Hlth Care Adm Role. The residency provides a structured field experience in an administrator role. The student will have an opportunity to apply theories, principles and techniques learned in the didactic portion of the program in a selected health system under the guidance of an experienced preceptor and faculty advisor. (75 clinical hours per credit hour - total 525 clinical hours) Traditional Clinical Rotation (1-7 credit hours)

N 660. Focus on Adv Nsg Practice Spec (Peds). This didactic course provides a foundation for the role of pediatric nurse practitioners to survey the normal growth and development and expected developmental milestones of the pediatric client from conception through adolescence. This course will build a foundation essential for the assessment, planning and evaluation of the health in the pediatric clients as well as the assessment for pediatric clients. Traditional Lecture (2 credit hours)

N 661-1. Practicum for Pediatrics I. This course provides a foundation and clinical application of the care of clients from birth through adolescence in the primary care setting. Emphasis is placed on health promotion, screening, and prevention of illness and management of selected client health problems in the pediatric client. Traditional Clinical Rotation (4 credit hours)

N 661-2. Practicum for Pediatrics II. This course provides opportunities for the graduate student to develop expertise in the role of the pediatric nurse practitioner in the acute care setting. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management with select client groups in collaboration with preceptors and other health care professionals. Traditional Clinical Rotation (4 credit hours)

N 661-3. Practicum for Pediatrics III. This course provides opportunities for the graduate student to develop expertise in the role of the pediatric nurse practitioner in the chronic care setting. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management with select client groups in collaboration with preceptors and other health care professionals. Traditional Clinical Rotation (4 credit hours)

N 661-4. Practicum for Pediatrics IV. This course provides opportunities for the graduate student to develop expertise in the role of the pediatric nurse practitioner in the critical care setting. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management with select client groups in collaboration with preceptors and other health care professionals. Traditional Clinical Rotation (4 credit hours)

N 661-5. Residency Program. This final clinical course provides concentrated clinical experiences in the primary, acute, chronic, and critical care settings to prepare for entry level functioning in the dual role of the acute/primary care nurse practitioner. This course will assist the pediatric nurse practitioner student to assume responsibility for the direct management and health care in these areas specific to this dual advanced nursing role. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management with select client groups in collaboration with preceptors and other health care professionals in the primary, acute, chronic and critical care settings. Traditional Practicum/Internship (1-7 credit hours)

N 666. Clinical Pharmacotherapeutics. This course provides a foundation and clinical application of pharmacotherapeutic interventions commonly prescribed for healthy and ill individuals across the life span. Emphasis is placed on pharmacokinetic and pharmacodynamic principles along with integration of the use of these products including variations for selected special populations specific to the clinical track of study and client characteristics. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

N 669. Role Dev & Role Enact Adv Role Pract Nsg. In this role course, enactment of advanced role practice in nursing is studied. Course will focus on the continued development of knowledge for role development and implementation. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

N 677. Advanced Health Assessment. This course focuses on the theoretical basis of performing a physical assessment on the individual throughout the life span. Students will acquire advanced knowledge and skills necessary to perform physical assessments. The emphasis is on mastering interviewing, history taking, and advanced physical assessment skills. Traditional Lecture (3 credit hours)

N 682-1. Therapeutic Management in Primary Care I. This role support course provides theoretical basis for assessing and managing client health patterns for advanced role practice in nursing as a nurse clinician. Emphasis is placed on health promotion, screening, prevention of illness, and management of selected client health problems. Online, Internet, or Web-based Lecture (2 credit hours)
N 682-2. Therapeutic Management in Primary Care II. This role support course provides foundational knowledge for managing care of persons with altered health patterns relevant to advanced role practice as a nurse clinician. Altered health patterns are examined in relation to differential diagnosis, therapeutic agents and problem management. Online, Internet, or Web-based Lecture (2 credit hours)

N 682-3. Therapeutic Mgmt in Primary Care III. This course focuses on the health issues and needs of older adults and principles for evaluating, managing and coordinating their care in a variety of settings. Emphasis is on the collaborative role of advanced practice nurses in assisting older adults and family caregivers from diverse ethnic and cultural backgrounds to negotiate health care delivery systems. Online, Internet, or Web-based Lecture (2 credit hours)

N 685-1. Practicum in Primary Care I. This course provides opportunities for the graduate student to develop expertise in the role of the family nurse practitioner. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management for the subset of women’s health client groups in collaboration with preceptors and other health care professionals. (90 clinical hours) Traditional Clinical Rotation (1-2 credit hours)

N 685-2. Practicum in Primary Care II. This course provides opportunities for the graduate student to develop expertise in the role of the family nurse practitioner. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management for the subset of pediatric client groups in collaboration with preceptors and other health care professionals. (135 clinical hours) Traditional Clinical Rotation (2-3 credit hours)

N 685-3. Practicum in Primary Care III. This course provides opportunities for the graduate student to develop expertise in the role of the family nurse practitioner. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management for the subset of primary care client groups in collaboration with preceptors and other health care professionals. (180 clinical hours) Traditional Clinical Rotation (2-4 credit hours)

N 685-4. Practicum in Primary Care IV. This course provides opportunities for the graduate student to develop expertise in the role of the family nurse practitioner. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, diagnosis, and problem management with select client groups in collaboration with preceptors and other health care professionals. (225 clinical hours) Traditional Clinical Rotation (3-5 credit hours)

N 686-1. Practicum in Clinical Assessment MHP I Fam. This 180-hour practicum course is focused on the application of theoretical concepts and assessment skills with persons of diverse cultures in rural health care settings experiencing or at risk for common mental health problems and major psychiatric disorders. Traditional Clinical Rotation (4 credit hours)

N 686-2. Practicum in Clinical Mgmt of Indiv w/MH. This 180-hour practicum course is focused on integration of theory and practice in assessment, diagnosis, intervention, and documentation of individuals of diverse cultures in rural settings experiencing mental health problems, major psychiatric disorders, and psychiatric complications of physical illnesses. Traditional Clinical Rotation (4 credit hours)

N 686-3. Practicum in Clinical Mgt of Fam and Gr. This 270-hour practicum is focused on evidence-based psychoeducation, supportive therapy, and psychotherapy with groups, couples, and families of diverse cultures and on synthesis of clinical roles, practice management activities, and strategies for complex mental health issues in rural health care settings. Traditional Clinical Rotation (6 credit hours)

N 687-1. Clinical Assessment of PMH I - Fam. This didactic course is focused on a theoretical basis for advanced psychiatric mental health nursing practice with persons of diverse cultures in rural settings experiencing or at risk for common mental health problems and major psychiatric disorders. Emphasis is on the mental health environment and advanced clinical processes, including communication strategies, psychiatric assessments, and diagnostic standards. Online, Internet, or Web-based Lecture (2 credit hours)

N 687-2. Clinical Mgmt of Indiv w/MHP II Fam. This didactic course is focused on the advanced nursing practices of assessment, diagnosis, treatment, planning, evaluation, and documentation of individuals of diverse cultures in rural settings experiencing common mental health problems, major psychiatric disorders, and psychiatric complications of physical illnesses. Online, Internet, or Web-based Lecture (3 credit hours)

N 687-3. Clinical Mgt of Fam & Group MHP III. This didactic course is focused on evidence-based conceptual models, theories, and techniques for therapies with groups, couples, and families of diverse cultures across the lifespan. The clinical roles, practice management activities, and strategies for complex mental health care issues in rural settings also are evaluated. Online, Internet, or Web-based Lecture (2 credit hours)

N 696. Directed Study in Management Research. This role support course provides an opportunity for students to apply the research process to administrative problems under the direction of a graduate faculty mentor. Focus areas of research projects include organizational behavior, costs analysis, outcomes measurement, strategic management, health policy, case management, managed care, and information systems. Online, Internet, or Web-based Lecture (1-3 credit hours)

GRADUATE PROGRAM ELECTIVES

ID 500. Educator Institute. This course is designed to strengthen the educator’s role through examination of issues and skills related to health provider education in Professional Schools and other health care settings. Students will use educational and learning theories to: 1. develop course content; 2. plan strategies for change in curriculum development; 3. demonstrate didactic and clinical instructional modalities; 4. conduct didactic and clinical evaluations. The course format consists of theoretical and practical application of content and allows the student to produce tangible and useful educational products. Traditional Lecture (1-3 credit hours)

ID 600. Educator Institute. This course is designed to strengthen the educator’s role through examination of issues and skills related to health provider education in Professional Schools and other health care settings. Students will use educational and learning theories to: 1. develop course content; 2. plan strategies for change in curriculum development; 3. demonstrate didactic and clinical instructional modalities; 4. conduct didactic and clinical evaluations. Traditional Lecture (1-3 credit hours)

N 609. Directed Individual Study. This didactic elective course enables the student to use individually designed learning experiences focused on selected topics in nursing to satisfy individual learning needs and interests. A mutually agreed upon contract that details objectives and evaluation methods for the experience will be developed by student and faculty. Online, Internet, or Web-based Independent Study (1-3 credit hours)
N 638-1. Synthesis 1st Yr Nurse Practitioner Mgt. This elective course will offer students the opportunity to synthesize information from prerequisite courses using a case study approach. Online, Internet, or Web-based Lecture (1-3 credit hours)

N 698. Directed Study in Research. This elective allows students to participate in research activities as specified in a mutually determined learning contract. A nursing faculty member with a graduate appointment will direct all research activities. With faculty guidance, students may select to: 1) participate with a mentor (minimum master's degree preparation) in the mentor’s ongoing research activities, or 2) complete individual or group research proposed in previous courses. Online, Internet, or Web-based Lecture (1-3 credit hours)

N 638-2. Clinical Elective for Advanced Practice. This precepted clinical course provides the student an opportunity to practice in the role of advanced nurse practitioner and begin to establish the skills necessary to assume responsibility for management and health care of clients. Through a learning contract developed with faculty, the student uses advanced knowledge and skills for assessment, differential diagnosis, evaluation and health care management with select client groups in collaboration with preceptors and other health care professionals. Traditional Practicum/Internship (1-5 credit hours)

POST-MASTER’S (PMN) CERTIFICATE

The Post-Master’s certificate is designed for registered nurses who already hold a master’s degree in nursing and who seek academic preparation in a new specialty or subspecialty area of advanced nursing practice. Post-Master’s certificate students may apply for any of the specialty options offered by the school of nursing. Theory and clinical experiences focus on the role selected by the student and are congruent with the student’s long-term career goals. The curriculum consists of supportive science and clinical specialty courses. Each certificate is designed to be in compliance with national certification requirements including required support courses, didactic specialty courses, and clinical hours. Students who complete the Post-Master’s Nurse Practitioner tracks are academically eligible for national certification by professional organizations and for state certification by the Mississippi Board of Nursing. Post-Master’s plans of study are individualized based on previous coursework. Students are required to complete all specialty courses and any support courses not previously completed. Based on individual review of MSN coursework, Post-Master’s certificate students are not required to complete MSN core courses (see the previous section on MSN curriculum for the BSN-prepared RN for a listing of courses for each specialty area). The following PMN tracks are classified as online: AGACNP, AGNP, FNP, NED, NHCA, and PMHNP.

POST-MASTER’S CERTIFICATE OUTCOMES

Background for Practice from Sciences and Humanities

Clinical Prevention and Population Health for Improving Health

Master’s Level Nursing Practice

1. Apply broad, organizational, patient-centered, ethical, and culturally responsive concepts into daily practice.
2. Demonstrate theoretical knowledge from nursing and other disciplines to advanced role practice in nursing for analysis of clinical problems, illness prevention, and health promotion strategies.
3. Utilize quality processes to evaluate outcomes of aggregates and monitor trends in healthcare.

Organizational and Systems Leadership

Quality Improvement and Safety

4. Analyze the impact of systems on patient outcomes.
5. Demonstrate leadership in providing quality cost-effective care, with management of human, fiscal, and physical resources.

Translating and Integrating Scholarship into Practice

6. Apply translational research in the practice setting through problem identification, systematic inquiry, and continuous improvement processes.

Informatics and Healthcare Technologies

7. Utilize current technologies to deliver, enhance, and document care across multiple settings to achieve optimal outcomes.

Health Policy and Advocacy

8. Articulate change within organizational structures of various health care delivery systems to impact policy, financing, and access to quality health care.

Interprofessional Collaboration for Improving Patient and Population Health Outcomes

9. Lead and coordinate interdisciplinary teams across care environments to reduce barriers, facilitate access to care, and improve health outcomes.

APPLICATION PROCEDURE

All correspondence regarding admission should be addressed to the Office of Student Records and Registrar, The University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505. A nonrefundable application fee of $25 must accompany each application. All transcripts and documents submitted in support of an application become the property of the University of Mississippi Medical Center and cannot be returned or forwarded to another school or individual. Applications are accepted beginning July 1 of the year prior to the desired year of enrollment and continue until the deadline for the particular term of attendance.

ADMISSION CRITERIA

Admission to a Post-Master’s track is based on evaluation of the following by the Graduate Admission and Progression Committee.

1. A complete application;
2. A master's degree in nursing from an institution that is accredited by a regional accrediting body and that holds professional accreditation by CCNE or ACEN;
3. A cumulative GPA of 3.0 or higher on a 4.0 scale;
4. Undergraduate or graduate level statistics course;
1. Individuals seeking admission to the DNP program must meet the following requirements:

   a. Completed application;
   b. Graduate GPA of 3.2 on a 4.0 scale for the Post-Master's DNP program or a cumulative (undergraduate and graduate) GPA of 3.2 on a 4.0 scale if applying for the post-baccalaureate DNP;
   c. Satisfactory scores on the Graduate Record Exam (GRE), including a score of 3.5 or higher on the analytical section.
   d. Previous degree: For Post-Baccalaureate applicants, a BSN is required; Post-Master's applicants must hold a BSN degree and a master's degree in nursing or related field; Note: Applicants interested in pursuing a Nurse Practitioner track in the DNP program must complete the post-baccalaureate DNP application, regardless of whether they have a MSN degree.
   e. Evidence of an unrestricted/unencumbered nursing license as a registered nurse in the United States or one of its territories and be eligible for licensure in Mississippi. May and December BSN graduates who are applying to the Post-Baccalaureate DNP must successfully complete NCLEX-RN® and be licensed as a RN during the first semester of the Post-Baccalaureate DNP program. Once admitted, students must be licensed/privileged as a RN in Mississippi and must maintain a current and unrestricted RN license
   f. One year of professional nursing experience preferred, but not required;
   g. Completion of at least one research course and one statistics course at the undergraduate or graduate level;
   h. Three letters of reference;
   i. Curriculum vitae or professional resume;

2. For applicants who earned course work/degrees from institutions outside the United States:
   a. Completion of the Test of English as a Foreign Language (TOEFL) for graduates of foreign schools whose academic language was not English. The minimum required score is:
      - TOEFL-Internet Based Test (IBT): 79 or higher
      - TOEFL-Paper Based Test (PBT): 550 or higher
   b. Other documents required by UMMC and local, state, and federal authorities;
   c. Transcripts must be evaluated in a course-by-course report from World Education Services (WES) or the Commission on Graduates of Foreign Nursing Schools (CGFNS).

**SUGGESTED POST-MASTER’S PLANS OF STUDY**

Students will be given an individualized plan of study appropriate for their role by their academic advisor upon enrollment. Students in a Post-Master’s nurse practitioner track who already have Nurse Practitioner certification in another area will typically have a shorter plan of study. Contact the appropriate track director regarding a plan of study that is developed based on your previous graduate nursing coursework.

**DOCTOR OF NURSING PRACTICE (DNP) PROGRAM**

**OVERVIEW**

The DNP program is based on the AACN Essentials of Doctoral Education for Advanced Nursing Practice. UMMC offers two entry points to the DNP – the Post-Baccalaureate DNP (multiple tracks available) and the Post-Master’s DNP. Applicants interested in pursuing a Nurse Practitioner track in the DNP program must complete the post-baccalaureate DNP application.

The purpose of the DNP program is to prepare advanced practice nurses at the highest professional level of clinical nursing practice to advance the application of nursing knowledge through the conduct and use of research and evidence based practice for the purpose of improving health care to diverse populations. Nurses who wish to continue their education in the areas of advanced practice, nursing and health administration, or staff development may consider the DNP option. It is a viable option for nurse practitioners, nurse midwives, nurse anesthetists, nurses in or pursuing health administration positions, or nurses who work in staff development.

**APPLICATION INFORMATION**

The deadline for receipt of completed applications is March 31 for fall semester admission.

1. Individuals seeking admission to the DNP program must meet the following requirements:
   a. Completed application;
   b. Graduate GPA of 3.2 on a 4.0 scale for the Post-Master’s DNP program or a cumulative (undergraduate and graduate) GPA of 3.2 on a 4.0 scale if applying for the post-baccalaureate DNP;
   c. Satisfactory scores on the Graduate Record Exam (GRE), including a score of 3.5 or higher on the analytical section.
   d. Previous degree: For Post-Baccalaureate applicants, a BSN is required; Post-Master’s applicants must hold a BSN degree and a master’s degree in nursing or related field; Note: Applicants interested in pursuing a Nurse Practitioner track in the DNP program must complete the post-baccalaureate DNP application, regardless of whether they have a MSN degree.
   e. Evidence of an unrestricted/unencumbered nursing license as a registered nurse in the United States or one of its territories and be eligible for licensure in Mississippi. May and December BSN graduates who are applying to the Post-Baccalaureate DNP must successfully complete NCLEX-RN® and be licensed as a RN prior to the program's start date. August BSN graduates must successfully complete NCLEX-RN® and be licensed as a RN during the first semester of the Post-Baccalaureate DNP program. Once admitted, students must be licensed/privileged as a RN in Mississippi and must maintain a current and unrestricted RN license
   f. One year of professional nursing experience preferred, but not required;
   g. Completion of at least one research course and one statistics course at the undergraduate or graduate level;
   h. Three letters of reference;
   i. Curriculum vitae or professional resume;

2. For applicants who earned course work/degrees from institutions outside the United States:
   a. Completion of the Test of English as a Foreign Language (TOEFL) for graduates of foreign schools whose academic language was not English. The minimum required score is:
      - TOEFL-Internet Based Test (IBT): 79 or higher
      - TOEFL-Paper Based Test (PBT): 550 or higher
   b. Other documents required by UMMC and local, state, and federal authorities;
   c. Transcripts must be evaluated in a course-by-course report from World Education Services (WES) or the Commission on Graduates of Foreign Nursing Schools (CGFNS).
3. Computer literacy requirement - Fluent use of computers. Applicants should be familiar with the use of basic computing including, but not limited to, the internet, search engines, browsers, instructional computer systems (Canvas), and publicly available research databases (PubMed, CINAHL, Psych, etc.).

**DNP PROGRAM OUTCOMES**

1. Develop and manage innovative health services to improve access, quality, and health outcomes.
2. Enhance the culture of safety in health systems through the application of information technologies and evidenced-based practice.
3. Translate practice inquiry to improve health services delivery for diverse populations.
4. Provide leadership for multidisciplinary teams through analysis of critical indicators and/or health systems to improve health status.
5. Design culturally competent health services for vulnerable populations.
6. Translate theoretical knowledge into practice to improve health outcomes.
7. Examine, implement, and evaluate the modification of evidenced-based health services, health systems, and health policies.
8. Develop and test new models of care that address the complex health needs of individuals, families, and rural populations.

**DNP PROJECT**

The DNP project is the scholarly activity that culminates in the knowledge application of evidence-based practice and translation obtained during the doctoral program. Students will identify and carry through a project, such as a pilot study, a quality improvement project, a consulting project, or program implementation. The student integrates and applies appropriate theories and inquiry methods to achieve specified outcomes. Two practice inquiry courses accompany the project and include content on information systems and technology needed for establishing evidence-based practice models; the use of outcomes measurement and skills needed for the transferring of data between heterogeneous systems; and demonstration of the skills and techniques for evaluation.

A committee guides the student through project identification, planning, implementation, and evaluation. This committee evaluates the project for academic credit. The student provides the committee with a proposal for a practice-related project. Specific criteria for each project are determined by the committee. The work results in a written document and an oral defense.

**RESIDENCY EXPERIENCE**

Residency experiences afford the student the opportunity to develop and synthesize the knowledge and skills required to demonstrate doctoral level competency in a specialized nursing practice area. The residency requirement for the DNP program meets the AACN requirement of 1,000 clinical hours. The number of hours required for students in the Post-Master’s DNP program depends on the transferable clinical hours from the student’s master’s education. The clinical practice hours include those required to complete the capstone inquiry project. Students in the Post-Baccalaureate DNP plan of study will obtain a minimum of 1,000 clinical hours in the program.

**SUGGESTED PLANS OF STUDY**

**POST-BACCALAUREATE DNP PLAN OF STUDY - Nursing and Health Care Administrator**

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<td>Discipline of Nursing</td>
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<td>Finance and Leadership in Health Care Systems</td>
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<td>DNP720</td>
<td>Biostatistics I</td>
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<td>Research Design and Methods for Advanced Nursing Practice</td>
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<td>DNP702</td>
<td>Transforming Advanced Nursing Practice</td>
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### POST-BACCALAUREATE DNP PLAN OF STUDY - Adult-Gerontology

#### Acute Care NP

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<th>Term</th>
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<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FALL</strong></td>
<td>N632</td>
<td>Discipline of Nursing</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>N652-1</td>
<td>Finance and Leadership in Health Care Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>N600</td>
<td>Application and Interpretation of Acute Care Diagnostic Modalities</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>N677</td>
<td>Advanced Health Assessment</td>
<td>3</td>
</tr>
<tr>
<td><strong>SPRING</strong></td>
<td>N601-1</td>
<td>Practicum in Adult-Gerontology Acute Care Nurse Practitioner (45 clinical)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N633</td>
<td>Research Design and Methods for Advanced Nursing Practice</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>N637</td>
<td>Advanced Physiology/Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>N666</td>
<td>Clinical Pharmacotherapeutics</td>
<td>3</td>
</tr>
<tr>
<td><strong>SUMMER</strong></td>
<td>N605-1</td>
<td>Adult-Gerontology Acute Care Assessment, Management, and Evaluation I</td>
<td>2</td>
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<tr>
<td></td>
<td>N601-2</td>
<td>Practicum in Adult-Gerontology Acute Care Nurse Practitioner II (135 clinical)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ID730</td>
<td>Health Care Quality Improvement (75 clinical hours)</td>
<td>3</td>
</tr>
<tr>
<td><strong>FALL</strong></td>
<td>N605-2</td>
<td>Adult-Gerontology Acute Care Assessment, Management, and Evaluation II</td>
<td>2</td>
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<tr>
<td></td>
<td>N601-3</td>
<td>Practicum in Adult-Gerontology Acute Care Nurse Practitioner III (225 clinical)</td>
<td>5</td>
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<tr>
<td></td>
<td>DNP720</td>
<td>Biostatistics I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DNP702</td>
<td>Transforming Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td><strong>SPRING</strong></td>
<td>N607-1</td>
<td>Health Policy and Population Health</td>
<td>2</td>
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<tr>
<td></td>
<td>N601-4</td>
<td>Practicum in Adult-Gerontology Acute Care Nurse Practitioner IV (225 clinical)</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>DNP701</td>
<td>Theoretical Foundations for Advanced Nursing Practice</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DNP700</td>
<td>Clinical Applied Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td><strong>SUMMER</strong></td>
<td>DNP703</td>
<td>Population Health</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DNP706</td>
<td>Evaluation Approaches, Models and Methods</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>DNP705</td>
<td>Practice Inquiry I</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>DNP712</td>
<td>Capstone Inquiry (75 clinical hours)</td>
<td>1</td>
</tr>
<tr>
<td><strong>FALL</strong></td>
<td>DNP769</td>
<td>Role Development and Role Enactment for Advanced Role Practice in Nursing</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>DNP740</td>
<td>Project Management (75 clinical hours)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ID718</td>
<td>Health Policy and the Health Care System</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Hours:** 68  
**Total Clinical Hours:** 1050
### POST-BACCALAUREATE DNP PLAN OF STUDY - Adult-Gerontology NP

#### FALL
- **N632**  
  Discipline of Nursing  
  
- **N652-1**  
  Finance and Leadership in Health Care Systems  
  
- **N610-2**  
  Reproductive Health for Adult Nurse Practitioners  
  
- **N677**  
  Advanced Health Assessment  
  
#### SPRING
- **DNP700**  
  Clinical Applied Epidemiology  
  
- **N633**  
  Research Design and Methods for Advanced Nursing Practice  
  
- **N637**  
  Advanced Physiology/Pathophysiology  
  
- **N666**  
  Clinical Pharmacotherapeutics  
  
#### SUMMER
- **N627-4**  
  Clinical Management of Adults and Older Adults I  
  
- **N628-4**  
  Practicum in Clinical Management of Adults and Older Adults I (180 clinical hours)  
  
- **ID730**  
  Health Care Quality Improvement (75 clinical hours)  
  
#### FALL
- **N627-5**  
  Clinical Management of Adults and Older Adults II  
  
- **N628-5**  
  Practicum in Clinical Management of Adults and Older Adults II (180 clinical hours)  
  
- **DNP720**  
  Biostatistics I  
  
- **DNP702**  
  Transforming Advanced Nursing Practice  
  
#### SPRING
- **N607-1**  
  Health Policy and Population Health  
  
- **N627-6**  
  Clinical Management of Adults and Older Adults III  
  
- **N628-6**  
  Practicum in Clinical Management of Adults and Older Adults III (270 clinical hours)  
  
- **DNP701**  
  Theoretical Foundations for Advanced Nursing Practice  
  
#### SUMMER
- **DNP703**  
  Population Health  
  
- **DNP706**  
  Evaluation Approaches, Models and Methods  
  
- **DNP705**  
  Practice Inquiry I  
  
- **DNP712**  
  Capstone Inquiry (75 clinical hours)  
  
#### FALL
- **DNP769**  
  Role Development and Role Enactment for Advanced Role Practice in Nursing  
  
- **DNP740**  
  Project Management (75 clinical hours)  
  
- **ID718**  
  Health Policy and the Health Care System  
  
- **DNP712**  
  Capstone Inquiry (150 clinical hours)  
  
- **DNP708**  
  Practice Inquiry II  
  
- **DNP759**  
  *Residency (75 clinical hours)  
  
#### SPRING
- **DNP704**  
  Leadership in Health Systems  
  
- **DNP707**  
  Health Care Finance  
  
---

**Total Hours:** 81  
**Total Clinical Hours:** 1305

*Taken every semester from this point until graduation*
DNP712  Capstone (150 clinical hours)  2
DNP759  *Residency (75 clinical hours)  1

Total Hours  84
Total Clinical Hours  1305

*Taken every semester from this point until graduation

POST-BACCALAUREATE DNP PLAN OF STUDY - Family NP

FALL
N632  Discipline of Nursing  2
N652-1  Finance and Leadership in Health Care Systems  3
N610  Reproductive Health for Advanced Nursing Practice  3
N677  Advanced Health Assessment  3

SPRING
N612  Therapeutic Management of the Pediatric Patient  2
N685-1  Practicum in Primary Care (90 clinical hours)  2
N633  Research Design and Methods for Advanced Nursing Practice  2
N637  Advanced Physiology/Pathophysiology  3
N666  Clinical Pharmacotherapeutics  3

SUMMER
N682-1  Therapeutic Management in Primary Care I  2
N685-2  Practicum in Primary Care II (135 clinical hours)  3
ID730  Health Care Quality Improvement (75 clinical hours)  3

FALL
N682-2  Therapeutic Management in Primary Care II  2
N685-3  Practicum in Primary Care III (180 clinical hours)  4
DNP720  Biostatistics I  3
DNP702  Transforming Advanced Nursing Practice  3

SPRING
N607-1  Health Policy and Population Health  2
N682-3  Therapeutic Management in Primary Care III  2
N685-4  Practicum in Primary Care IV (225 clinical hours)  5
DNP701  Theoretical Foundations for Advanced Nursing Practice  3
DNP700  Clinical Applied Epidemiology  3

SUMMER
DNP703  Population Health  3
DNP706  Evaluation Approaches, Models and Methods  3
DNP705  Practice Inquiry I  1
DNP712  Capstone Inquiry (75 clinical hours)  1

FALL
DNP769  Role Development and Role Enactment for Advanced Role Practice in Nursing  1
DNP740  Project Management (75 clinical hours)  3
ID718  Health Policy and the Health Care System  3
DNP712  Capstone Inquiry (150 clinical hours)  2
DNP708  Practice Inquiry II  1
DNP759  *Residency (75 clinical hours)  1

SPRING
DNP704  Leadership in Health Systems  3
DNP707  Health Care Finance  3
DNP712  Capstone (150 clinical hours)  2
DNP759  *Residency (75 clinical hours)  1

Total Hours  86
Total Clinical Hours  1305

*Taken every semester from this point until graduation
## POST-BACCALAUREATE DNP PLAN OF STUDY - Psychiatric/Mental Health NP

### FALL
- N632: Discipline of Nursing 2
- N652-1: Finance and Leadership in Health Care Systems 3
- N677: Advanced Health Assessment 2

### SPRING
- DNP700: Clinical Applied Epidemiology 3
- N633: Research Design and Methods for Advanced Nursing Practice 2
- N637: Advanced Physiology/Pathophysiology 3
- N666: Clinical Pharmacotherapeutics 2

### SUMMER
- N687-1: Clinical Assessment of Persons with Mental Health Problems I – Family 2
- N686-1: Practicum in Clinical Assessment of Persons with MH Problems I – Family (180 clin hrs) 4
- ID730: Health Care Quality Improvement (75 clinical hours) 3

### FALL
- N687-2: Clinical Assessment of Persons with Mental Health Problems II – Family 3
- N686-2: Practicum in Clinical Assessment of Persons with MH Problems II – Family (180 clin hrs) 4
- DNP720: Biostatistics I 3
- DNP702: Transforming Advanced Nursing Practice 3

### SPRING
- N607-1: Health Policy and Population Health 2
- N687-3: Clinical Management of Families and Groups with MH Problems III 2
- N686-3: Practicum in Clinical Management of Families & Groups III (270 clinical hours) 6
- DNP701: Theoretical Foundations for Advanced Nursing Practice 3

### SUMMER
- DNP703: Population Health 3
- DNP706: Evaluation Approaches, Models and Methods 3
- DNP705: Practice Inquiry I 1
- DNP712: Capstone Inquiry (75 clinical hours) 1

### FALL
- DNP769: Role Development and Role Enactment for Advanced Role Practice in Nursing 1
- DNP740: Project Management (75 clinical hours) 3
- ID718: Health Policy and the Health Care System 3
- DNP712: Capstone Inquiry (150 clinical hours) 2
- DNP708: Practice Inquiry II 1
- DNP759: *Residency (75 clinical hours) 1

### SPRING
- DNP704: Leadership in Health Systems 3
- DNP707: Health Care Finance 3
- DNP712: Capstone (150 clinical hours) 2
- DNP759: *Residency (75 clinical hours) 1

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**Total Hours** 82

**Total Clinical Hours** 1305

*Taken every semester from this point until graduation*

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## POST-MASTER’S DNP PLAN OF STUDY

### FALL
- ID718: Health Policy and the Health Care System 3
- DNP720: Biostatistics I 3
- DNP702: Transforming Advanced Nursing Practice 2

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
application for advanced nursing practice and practice inquiry. Systematic examination, evaluation and refinement of relevant theories and theories, consultation models and collaborative models are analyzed for historical significance, relative scientific position and contemporary disciplines for applicability to advanced nursing practice. Role theory, learning theory, psychological theory, management theory, leadership models enable the student to develop a conceptual model for practice within a relevant setting.

Online, Internet, or Web-based Lecture (3 credit hours)

Use of data and the translation of research into practice. Students will develop skills needed for transferring data between heterogeneous models in clinical, educational, and administrative settings. The emphasis for this course is on the role of information technology and the use of data and the translation of research into practice.

DNP 702. Transforming Advanced Nursing Practice. This course is designed to be the introductory course for the DNP student and will introduce the DNP from a historical perspective then address the three domains of advanced nursing practice, leadership and scholarship. This course will focus on influencing practice patterns for populations, communities and health care systems, articulating the leadership role of the DNP and embracing practice inquiry as fundamental.

Online, Internet, or Web-based Lecture (3 credit hours)

DNP 703. Population Health. This course introduces an understanding of the multiple determinants of health of populations. Students will be presented an overview of the determinants of health and measurement of health status. One of the major goals of the course will be to enable students to apply the concepts underlying the trends in health care to the health status of populations in their clinical settings as well as in integrated delivery systems of the future. The goal of this course is to develop the student’s understanding of the principles and practice of monitoring population health.

Online, Internet, or Web-based Lecture (3 credit hours)

DNP 704. Leadership in Health Systems. This course focuses on nursing leadership, integrating theory and research as a basis for improvement of health systems and health outcomes. Emphasis is placed on strategic thinking, influence, negotiation and power strategies for effective leadership in health care delivery systems. Traditional Lecture (3 credit hours)

DNP 705. Practice Inquiry I. This course covers information systems and technology needed for establishing evidence-based practice models in clinical, educational, and administrative settings. The emphasis for this course is on the role of information technology and the use of data and the translation of research into practice. Students will develop skills needed for transferring data between heterogeneous systems.

Online, Internet, or Web-based Lecture (1 credit hour)

DNP 706. Evaluation Approaches, Models & Methods. In this course the student will examine evaluation approaches, models and methods appropriate to translate research findings into clinical practice and to conduct practice and health system performance evaluations. The DNP is accountable for the provision of quality, cost-effectiveness of health care. Outcomes measurement, process improvement, program evaluation, impact analysis and provider performance are studied.

Traditional Lecture (3 credit hours)

DNP 707. Health Care Finance. This course provides students with an overview of the principal financial mechanisms in the U.S. health care industry and offer specific insights into the critical issues the industry currently faces. A feature of the course is the development of practical financial analysis skills that will provide students with a foundation for immediate application within the health care industry and a better understanding of course materials as presented. Training in use of these tools will include use of several of the most important financial tools and methodologies employed across the health care industry such as benefit/cost and cost effectiveness analysis, ratio...
analysis and others. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

**DNP 708. Practice Inquiry II.** This course builds upon the data management skills developed in Practice Inquiry I. This course focuses on developing a beginning level of understanding the use of outcomes measurement frameworks and the use of outcome data in practice, educational, and administrative settings. Students select and analyze outcome measures, apply skills in data management, and evaluate data management processes for their individual projects. Online, Internet, or Web-based Lecture (1 credit hour)

**DNP 712. Capstone Inquiry.** In this course, the student identifies an inquiry area. A committee for the inquiry is appointed. The course focuses on inquiry identification, inquiry planning, implementation and evaluation of the inquiry in collaboration with a committee. The student integrates and applies appropriate theoretical and evidence-based literature and inquiry methods to achieve specified outcomes. A total of 5 semester hours (375 clinical hours) of DNP 712 are required for completion of the DNP program. Traditional Clinical Rotation (1-5 credit hours)

**DNP 720. Biostatistics I.** This course is designed to introduce the application of statistical methods to health sciences. Contents include descriptive statistics, some basic probability concepts, distribution, central limit theorem, hypothesis testing, and power and sample size calculation. Techniques of t-test, ANOVA, linear regression and correlation analysis will be taught along with in-class exercises using SPSS and other predictive analytics software Traditional Lecture (3 credit hours)

**DNP 721. Biostatistics II.** This course is designed to concentrate on more advanced methods of statistical analysis including regression diagnostics and canonical correlation, logistic regression, factor analysis, path analysis, and structural equation modeling. The analysis technique will be taught along with in-class exercises using SPSS. It is assumed that students have taken Biostatistics I and have basic skills of using SPSS. Traditional Lecture (3 credit hours)

**DNP 740. Project Management.** In this course students learn the principles and fundamentals of project management necessary to achieve objectives in healthcare organizations. Special emphasis will be placed on the application of leadership skills, overcoming objections, achieving buy-in, conflict management, negotiation skills and working with diverse groups of individuals. Through case studies and various exercises, students will use tools and techniques to gain experience in single and multi-project management. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. (75 clinical hours) Online, Internet, or Web-based Lecture (3 credit hours)

**DNP 759. Residency in the DNP Role.** The purpose of the residency is to provide structured clinical (field) experiences functioning as a DNP. The student will have an opportunity to apply the theories, principles and techniques learned in the didactic portion of the DNP program in a selected health system setting under the guidance of a clinical mentor and a faculty advisor. The residency allows the student to integrate advanced nursing practice, leadership and scholarship domains of the DNP role for the improvement of programs and systems of healthcare. The residency experience provides the student with a foundation to practice at the highest level of nursing practice. (75 clinical hours per credit hour) Traditional Practicum/Internship (1-7 credit hours)

**DNP 769. Role Dvlmt & Enactment for Adv Role Pra.** In this role course, enactment of advanced role practice in nursing is studied. Seminars will focus on the continued development of knowledge for role development and implementation, advanced communication, and interventions with groups and communities. Online, Internet, or Web-based Lecture (1 credit hour)

**PhD IN NURSING PROGRAM**

The PhD program provides a strong foundation in theoretical and methodological content essential for the scholarly investigation of health care problems encountered in the practice of nursing. The program is designed to develop nurse researchers to generate and translate knowledge toward improving the health of individuals, families, communities and populations through the conduct of biologic, physiologic or experiential research in health and illness. The program of study and research is foundational to understanding client-centered health problems and developing the theoretical and experiential foundation necessary to initiate and coordinate clinical outcomes research.

**Purpose**

The purpose of the PhD in Nursing program is to prepare nurse researchers to generate and translate knowledge toward improving the health of individuals, families, communities, and populations. Graduates will be prepared to meet state, regional, national, and international needs for doctoral prepared registered nurses as faculty members in schools of nursing and in other leadership positions in health-related organizations.

**Program Outcomes**

Upon completion of the program, graduates will be prepared to:

- Design, conduct, direct, and disseminate research in nursing and allied health;
- Test and/or generate concepts, theories, and models for the advancement of nursing science and practice;
- Assume a leadership role in the generation and implementation of solutions for reduction of health disparities and improvement in health outcomes.

UMMC offers two entry points to the PhD in Nursing program: the Post-BSN and Post-Master’s. The Post-BSN option is designed to allow highly motivated and exceptional BSN graduates an accelerated and rigorous route to the PhD. Students in their last year of a BSN program or registered nurses who have earned a BSN and demonstrate potential for academic success and significant contributions to nursing may apply. The Post-Master’s option offers opportunities for registered nurses who hold a BSN degree and a graduate degree in nursing or a related field to gain the complementary knowledge and experiences requisite for scholarly pursuits in nursing and health-related fields.

Complete information about the PhD in Nursing program is included in the School of Graduate Studies in the Health Sciences section of the Bulletin.
INTERDISCIPLINARY COURSES (600- and 700-level courses)

**ID 630. Health Care Quality Improvement.** This course equips health professions students (medicine, nursing, health administration) with the ability and confidence to contribute to continual improvement in health care. Through seminar and field experiences, students will learn the philosophy, knowledge and skills of continuous improvement, teamwork and interdisciplinary work, and apply these to improve patient-centered health care quality. This online course is delivered utilizing synchronous and asynchronous distance learning modalities. Online, Internet, or Web-based Lecture (3 credit hours)

**ID 700. Ethics in Research.** This online course explores issues related to ethics in healthcare research conducted in a variety of settings. Principles of philosophy of science and select ethical theories are applied as a framework for critical ethical issues in healthcare research. Traditional Lecture (2 credit hours)

**ID 718. Health Policy and the Healthcare System.** This course at the beginning provides students the opportunity to analyze health policies and economic issues as they relate to healthcare delivery systems. The complex arrangements and interactions among governmental, private-not-for-profit, and for profit systems are explored within a context that includes economic, legal, and socio-political and public perspectives. Online, Internet, or Web-based Lecture (3 credit hours)

**ID 730. Health Care Quality Improvement.** This course equips health professions students (medicine, nursing, health administration) with the ability and confidence to contribute to continual improvement in health care. Through seminar and field experiences students will learn the philosophy, knowledge and skills of continuous improvement, teamwork, and interdisciplinary work, and apply these to improve patient-centered health care quality. (75 clinical hours) Online, Internet, or Web-based Lecture (1-3 credit hours)

**FACULTY**

Chelsey Andries, BSN, MSN (University of Mississippi); instructor in nursing
Josie Bidwell, BSN, MSN, DNP (University of Mississippi); assistant professor of nursing
Kayla Carr, BSN, MSN (University of Mississippi); instructor in nursing
Robin Christian, BSN (University of Memphis), MSN (Texas Woman’s University), DNP (Texas Christian University); associate professor of nursing
Kimberly Douglas, BSN, MSN (University of Mississippi); instructor in nursing
Fazlay Faruque, BS, MS (University of Rajshahi), MS, PhD (University of Mississippi); professor of nursing
Christina Ferrell, BSN, MSN (University of Mississippi); assistant professor of nursing
Audwin Fletcher, BS (Mississippi State University), BSN, MSN, PhD (University of Mississippi); professor of nursing
Jeanne Fortenberry, BSN (University of Southern Mississippi), MS (Capella University); assistant professor of nursing
Mary Kate Fouquier, BS (University of Kentucky), MSN (Case-Western Reserve), PhD (Georgia State); associate professor of nursing
Sherri Franklin, BSN, MSN (University of Mississippi); assistant professor of nursing
Katie Chancellor Hall, BSN (Mississippi College), MSN (University of Mississippi); instructor in nursing
Jennifer Hargett, BSN (Mississippi University for Women), MSN (University of Mississippi); instructor in nursing
Mary Kate Fouquier, BS (University of Kentucky), MSN (Case-Western Reserve), PhD (Georgia State); associate professor of nursing
Neeli Kirkendall, BSN, MSN (University of Mississippi); instructor in nursing
Lishia Lee, BSN, MSN, PhD (University of Mississippi); assistant professor of nursing
Sharon Loberg, BA (University of Michigan), MS, PhD (Vanderbilt University); professor of nursing
Susan Lofton, BSN (University of Mississippi), MSN (University of Mississippi); professor of nursing
Elise Lopez-Lambert, BSN, MSN (University of Mississippi); instructor in nursing
Cynthia Luther, BSN, MSN (University of Southern Mississippi), PhD (University of Alabama); assistant professor of nursing
Robyn MacSorley, BSN, MSN (University of Mississippi); assistant professor of nursing
Carl Mangum, BSN, MSN (University of Mississippi), PhD (University of Southern Mississippi); associate professor of nursing
Betsy Mann, BSN, MSN (University of Mississippi), DNP (Samford University); assistant professor of nursing
Tina Martin, BSN, MSN, PhD (University of Mississippi); professor of nursing
Sharon McElwain, BSN (Southeastern Louisiana University), MSN (Loyola University), DNP (University of Mississippi); instructor in nursing
Mary McNair, BSN, MSN (University of Mississippi); assistant professor of nursing
LaDonna Northington, BSN, MSN (University of Mississippi), DNS (Louisiana State University); professor of nursing
Anne Norwood, BS (University of Mississippi), BSN, MSN (Delta State University), PhD (University of Mississippi); professor of nursing
Keyshawnna Pittman, BSN (University of Southern Mississippi), MSN, PhD (University of Mississippi); assistant professor of nursing

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
Christian Pruett, BSBA (University of Southern Mississippi), MBA (Mississippi College), PhD (Mississippi State University); assistant professor of nursing
Marcia M. Rachel, BSN (Mississippi College), MSN (University of Southern Mississippi), PhD (University of Mississippi); professor of nursing
Gaye Ragland, BSN, MSN (University of Mississippi); assistant professor of nursing
Kathy Rhodes, BSN (University of Mississippi), MSN (Mississippi University for Women); instructor in nursing
Kim Rowzee Rickard, BSN (Mississippi University for Women), MSN (University of Mississippi); instructor in nursing
Jennifer Robinson, BSN (Southeastern Louisiana University), MSN (University of Southern Mississippi), PhD (University of Mississippi); professor of nursing
Kandy K. Smith, BSN (University of Southern Mississippi), MN (Emory University), DNS (Louisiana State University); professor of nursing
Sandra Stanton, BSN, MSN (University of Mississippi); PhD (William Carey University); assistant professor of nursing
Mary W. Stewart, BSN (Mississippi College), MSN, PhD (University of Mississippi); professor of nursing
Eva Tatum, BSN, MSN (University of Mississippi); assistant professor of nursing
Leslie Thweatt, BSN (Baptist College of Health Sciences), MSN (University of Mississippi); instructor in nursing
Jean Walker, BSN (Mississippi College), MSN (University of Southern Mississippi), PhD (University of Mississippi); professor of nursing
Jill White, BSN, MSN, PhD (University of Mississippi); assistant professor of nursing
Monica White, BSN, MSN (University of Mississippi); instructor in nursing
Robin Wilkerson, BSN, MSN (University of Mississippi), PhD (University of Tennessee); professor of nursing
Amy Williams, BSN, MSN (University of Mississippi); assistant professor of nursing
Ellen P. Williams, BSN, MSN (University of Tennessee Health Science Center), PhD (University of Mississippi); associate professor of nursing
Renee Williams, BSN (University of Southern Mississippi), MSN (University of Mississippi), PhD (Jackson State University); professor of nursing
Kristi Wilson, BSN, MSN (Chamberlain College), instructor in nursing
Karen Winters, BSN (Texas Christian University), MSN (University of Alabama), PhD (University of Mississippi); professor of nursing
The School of Health Related Professions academic calendar is for all programs.

NOTE: Clinical activities of students vary and may not conform to calendar.

<table>
<thead>
<tr>
<th>SHRP 2016-2017 Semester Academic Calendar</th>
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</thead>
<tbody>
<tr>
<td><strong>April</strong></td>
</tr>
<tr>
<td>11 Monday</td>
</tr>
<tr>
<td>Registration begins for 2016-2017 summer term</td>
</tr>
<tr>
<td>15 Friday</td>
</tr>
<tr>
<td>Last day to submit an application for August 2016 degree</td>
</tr>
<tr>
<td><strong>May</strong></td>
</tr>
<tr>
<td>17 Tuesday</td>
</tr>
<tr>
<td>$50 late registration fee for 2016-2017 summer term effective today</td>
</tr>
<tr>
<td>27 Tuesday</td>
</tr>
<tr>
<td>2016 Commencement</td>
</tr>
<tr>
<td><strong>SUMMER 2016</strong></td>
</tr>
<tr>
<td>31 Tuesday</td>
</tr>
<tr>
<td>Orientation for new students and classes begin</td>
</tr>
<tr>
<td>31 Tuesday</td>
</tr>
<tr>
<td>$100 late registration fee for 2016-2017 summer term effective today</td>
</tr>
<tr>
<td><strong>June</strong></td>
</tr>
<tr>
<td>10 Friday</td>
</tr>
<tr>
<td>Last day to register or add a course</td>
</tr>
<tr>
<td>13 Monday</td>
</tr>
<tr>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
</tr>
<tr>
<td>22 Wednesday</td>
</tr>
<tr>
<td>Registration begins for 2016-2017 fall semester</td>
</tr>
<tr>
<td><strong>July</strong></td>
</tr>
<tr>
<td>4 Monday</td>
</tr>
<tr>
<td>Independence Day holiday observed</td>
</tr>
<tr>
<td>5 Tuesday</td>
</tr>
<tr>
<td>Classes resume</td>
</tr>
<tr>
<td>6 Wednesday</td>
</tr>
<tr>
<td>Mid-term grades due</td>
</tr>
<tr>
<td>15 Friday</td>
</tr>
<tr>
<td>Last day to withdraw from a course and receive only a “W” grade if failing</td>
</tr>
<tr>
<td><strong>August</strong></td>
</tr>
<tr>
<td>1 Monday</td>
</tr>
<tr>
<td>$50 late registration fee for 2016-2017 fall semester effective today</td>
</tr>
<tr>
<td>1 Monday</td>
</tr>
<tr>
<td>Final examinations begin</td>
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<tr>
<td>5 Friday</td>
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<tr>
<td>Final examinations end; Last day of summer term</td>
</tr>
<tr>
<td>8 Monday</td>
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<tr>
<td>Final grades due in SAP by 5:00 p.m.</td>
</tr>
<tr>
<td>9 Tuesday</td>
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<tr>
<td>EOS reports due to the Dean</td>
</tr>
<tr>
<td><strong>FALL 2016</strong></td>
</tr>
<tr>
<td><strong>August</strong></td>
</tr>
<tr>
<td>11, 12 Thursday, Friday</td>
</tr>
<tr>
<td>Orientation for new students</td>
</tr>
<tr>
<td>15 Monday</td>
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<tr>
<td>Classes begin</td>
</tr>
<tr>
<td>15 Monday</td>
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<tr>
<td>$100 late registration fee for 2016-2017 fall semester effective today</td>
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<tr>
<td>19 Friday</td>
</tr>
<tr>
<td>Last day to register for fall semester</td>
</tr>
<tr>
<td>26 Friday</td>
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<tr>
<td>Last day to add a course</td>
</tr>
<tr>
<td>26 Friday</td>
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<tr>
<td>Last day to submit an application for December degree</td>
</tr>
<tr>
<td><strong>September</strong></td>
</tr>
<tr>
<td>5 Monday</td>
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<tr>
<td>Labor Day holiday observed</td>
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<tr>
<td>6 Tuesday</td>
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<tr>
<td>Classes resume</td>
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<tr>
<td>6 Tuesday</td>
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<tr>
<td>Last day to withdraw from school or from a course without receiving a withdrawal grade and to receive a tuition refund</td>
</tr>
<tr>
<td><strong>October</strong></td>
</tr>
<tr>
<td>12 Wednesday</td>
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<tr>
<td>Mid-term grades due</td>
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<tr>
<td>28 Friday</td>
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<tr>
<td>Last day to withdraw from a course and to receive only a “W” grade if failing</td>
</tr>
<tr>
<td><strong>November</strong></td>
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<td>4 Friday</td>
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<tr>
<td>Program Focus Day</td>
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<td>7 Monday</td>
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<tr>
<td>Registration begins for 2016-2017 spring semester</td>
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<tr>
<td>16 Wednesday</td>
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<tr>
<td>Employment Opportunities Day</td>
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<tr>
<td>18 Friday</td>
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<tr>
<td>Fall break begins at 5:00 p.m.</td>
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<tr>
<td>28 Monday</td>
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<td>Classes resume</td>
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<td><strong>December</strong></td>
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<td>5 Monday</td>
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<td>Final examinations begin</td>
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<td>9 Friday</td>
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<td>Final examinations end</td>
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<td>9 Friday</td>
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<tr>
<td>Christmas and New Year’s holidays begin at 5:00 p.m.</td>
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<tr>
<td>12 Monday</td>
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<td>Final grades due in SAP by 5:00 p.m.</td>
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<tr>
<td>13 Tuesday</td>
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<tr>
<td>EOS reports due to the Dean</td>
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<tr>
<td>17 Saturday</td>
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<tr>
<td>End of fall semester</td>
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<td>26 Monday</td>
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<tr>
<td>$50 late registration fee for 2016-2017 spring semester effective today</td>
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<tr>
<td>Date</td>
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<tr>
<td>January</td>
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</table>
The Board of Trustees authorized the School of Health Related Professions in October 1971 to provide a source of trained, competent allied health personnel to meet the needs of Mississippi; provide consultant services to allied health educational programs; aid in the development of appropriate cooperative education programs for allied health personnel; and provide continuing education programs for allied health personnel.

MISSION
In keeping with the vision of the University of Mississippi Medical Center, the School of Health Related Professions is dedicated to improving lives by achieving the highest standards of performance in education, research and health care; promoting the value of professionalism and lifelong learning among students, faculty and staff; finding solutions to the challenges of health disparities in Mississippi; embracing diversity; recruiting and retaining high performing students and faculty; and graduating outstanding health care professionals.

PROGRAMS
The School of Health Related Professions serves approximately 650 students in the following programs:

- Bachelor of Science in Dental Hygiene - Rebecca M. Barry, PhD, Director
- Bachelor of Science in Health Informatics and Information Management (Angela Morey, MSM, Director)
- Bachelor of Science in Health Sciences - Linda Croff-Poole, MPH, Director (Online Program)
- Bachelor of Science in Medical Laboratory Science - La'Toya Richards-Moore, PhD, Director
- Bachelor of Science in Radiologic Sciences - Kristi Moore, PhD, Director
- Master of Health Informatics and Information Management - Lisa Morton, PhD, Director (Online Program)
- Master of Health Sciences - Juanyce D. Taylor, PhD, Director (Online Program)
- Master of Occupational Therapy - Christy Morgan, PhD, Director
- Master of Science in Magnetic Resonance Imaging - Asher Street, MS, Director
- Master of Science in Nuclear Medicine Technology - Sherry J. West, DHA, Director
- Doctor of Health Administration - Angela Burrell, MSN, Coordinator (Online Program)
- Doctor of Physical Therapy - Rebecca H. Pearson, PhD, Director

GENERAL ADMISSION REQUIREMENTS
Selection of applicants is made on a competitive basis, and equal educational opportunity is offered to all students who meet the entrance requirements without regard to race, creed, sex, color, religion, marital status, sexual orientation, age, national origin, disability or veteran status.

For admission purposes, the School of Health Related Professions at the University of Mississippi Medical Center gives preference to residents of Mississippi, as defined by Miss. Code §§ 37-103-7, 37-103-13 and IHL Policy 610. Out-of-state applicants will be considered only if there are positions available after all qualified Mississippi applicants are accepted. The number of students admitted to each of the various departments within the school is dependent upon the educational resources available to support the program.

The School of Health Related Professions currently accepts admission applications only from individuals who are U.S. citizens or lawful permanent residents. The School of Health Related Professions may choose to not accept applications from students who cannot demonstrate residency as defined by Miss. Code §§ 37-103-7 and 37-103-13.

Meeting qualifications does not ensure admission as selection of applicants is on a competitive basis. No applicant is accepted until the admissions process is complete, which may include an interview by members of the appropriate departmental admissions committee. Applicants should not present themselves for interviews until requested as interviews are scheduled as required. Those applicants whom the appropriate departmental admissions committee deems it advisable to interview are notified well in advance.

Transfer of Credits - All prerequisite courses may be taken at either the University of Mississippi, Oxford campus, or a regionally accredited institution of higher education. If transferring from a Mississippi community college, please see the Articulation Agreement between the Mississippi Board of Trustees of State Institutions of Higher Learning and the Mississippi State Board for Community and Junior Colleges for program-specific transfer. Depending upon the undergraduate program, up to 60 semester hours of academic credit is the maximum which may be applied toward admission to departments where a degree is granted by the University of Mississippi Medical Center.
Technical Standards – The program admissions committees of the School of Health Related Professions, in accordance with Section 504 of the 1973 Vocational Rehabilitation Act and the Americans with Disabilities Act (PL101-336), have established technical standards for the essential functions of students in the school’s educational programs. A copy of these technical standards can be found on each department’s web page; click on the Admissions link to see the link for the department’s Technical Standards.

Verbal and written communication skills are vital to success in the academic programs in the School of Health Related Professions and, therefore, applicants whose native language is not English are required to take the Test of English as a Foreign Language (TOEFL) examination and demonstrate competence in written and spoken English. Information on the TOEFL examination may be obtained from the Educational Testing Service, (877) 863-3546.

Background Check – Mississippi Law requires all health care workers, including students, to successfully complete a criminal history background check, including fingerprinting, prior to beginning clinical activities. Students will receive information about the Medical Center process for completing the criminal history background checks from their respective schools. Be advised that a felony conviction may affect a student’s continued enrollment in the School of Health Related Professions and a graduate’s eligibility to sit for certification, registration, or licensure examinations. Affected students should contact the appropriate certification, registry or licensure agency or organization.

Transient or Non-degree Seeking – The School of Health Related Professions does not routinely accept transient, non-degree, audit or honor students. Incoming students, former SHRP students or transient students seeking a professional degree from another UMMC program may take courses at SHRP on a temporary basis per dean approval. Applicants are required to fill out a transient/non-degree seeking application administered through the UMMC Registrar’s Office and receive approval from the Program Chair and SHRP Dean to register for a course. Prior to registering for a course, transient or non-degree seeking students must submit the fully completed application and meet all appropriate admission requirements. Proof of required immunizations must be submitted to Student Health Services before the student can register for a course. Approved transient, non-degree, audit or honor students are administratively enrolled through the Registrar’s Office at the beginning of the term and monitored by the faculty of the designated program of study.

Probation or Conditional Acceptance – A student who is accepted into a program at SHRP with less than the required cumulative GPA or specified admission requirements will be placed on academic probation with a conditional acceptance. All probation or conditional acceptances must be approved by the SHRP Dean. The Program’s Chair and Admission Committee is responsible for identifying the requirements, with established time limits, that must be met to attain good standing in the designated program. If the student does not satisfy the set conditions, this will lead to disqualification from the major degree program without an intervening term on explicit probation.

GENERAL APPLICATION PROCEDURE

Applicants for programs in the School of Health Related Professions must apply online. All applicants must pay a nonrefundable application fee of $25.

All transcripts and documents submitted in support of an application become the property of the University of Mississippi Medical Center and cannot be returned to an applicant or forwarded to another school or individual.

Applications may be submitted for the enrollment period designated on the application beginning July 1 and continuing until the application deadline as established by each program. The school reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080. If the applicant fails to complete the application, is accepted and fails to enroll or is not accepted, a new application including all forms, documentation and transcripts must be submitted to be considered for a subsequent enrollment date.

Application deadlines are:

Bachelor of Science in Dental Hygiene (Traditional)
- Fall Admission
- Spring Admission
- Fall Admission
- Summer Admission
- Summer Admission
- Fall Admission
- Fall Admission
- Fall Admission
- Fall Admission
- Fall Admission
- Fall Admission

Bachelor of Science in Dental Hygiene (Advanced Standing)
- Fall Admission
- Spring Admission

Bachelor of Science in Health Informatics and Information Management (Traditional)
- Fall Admission

Bachelor of Science in Health Informatics and Information Management (Progression)
- Summer Admission
- Fall Admission
- Spring Admission
- Summer Admission

Bachelor of Science in Health Sciences
- Summer Admission
- Fall Admission

Bachelor of Science in Medical Laboratory Science (Traditional)
- Fall Admission

Bachelor of Science in Medical Laboratory Science (Progression)
- Fall Admission

Bachelor of Science in Radiologic Sciences (Traditional)
- Fall Admission

Bachelor of Science in Radiologic Sciences (Advanced Standing)
- Fall Admission

Master of Health Informatics and Information Management
- Fall Admission

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
TUITION AND REQUIRED FEES

Note: Tuition and fees listed below are valid for 2016-17 only and are subject to change pending information from the Institutions of Higher Learning (IHL). Please contact the Department of Student Accounting at (601) 984-1060 for further information.

Tuition for the Bachelor of Science in Dental Hygiene, Health Informatics and Information Management, Health Sciences, Medical Laboratory Science and Radiologic Sciences is $318.50 per semester hour, up to a maximum charge per semester of $3,822 for Mississippi residents. An additional $594.30 per semester hour, up to a maximum of $7,134 per semester, is charged to non-residents. Students enrolled in online programs will be charged a $150.00 distance learning fee each semester. Non-resident tuition will not be charged for students in online programs. Please look up your program in the Bulletin to determine if it is an online program.

Tuition for the Master of Science in Magnetic Resonance Imaging, Master of Science in Nuclear Medicine Technology, Master of Health Informatics and Information Management, Master of Health Sciences, and Master of Occupational Therapy is $424.66 per hour, up to a maximum of $3821.94 per semester. An additional $792.66 per semester hour, up to a maximum of $7,133.94 per semester, is charged to non-residents. Students enrolled in online programs will be charged a $150.00 distance learning fee each semester. Non-resident tuition will not be charged for students in online programs. Please look up your program in the Bulletin to determine if it is an online program.

Tuition for the Doctor of Health Administration is $456.96 per semester hour, up to a maximum charge per semester of $4,112.64. A $150.00 distance learning fee will be charged each semester.

Tuition for the Doctor of Physical Therapy is $648.40 per semester hour, up to a maximum charge per semester of $5,835.60 for Mississippi residents. An additional $715.33 per semester hour, up to a maximum of $6,437.97 per semester, is charged to non-residents.

FINANCIAL AID

Students wishing to apply for financial aid at the University of Mississippi Medical Center must complete the FAFSA (Free Application for Federal Student Aid) online (using the Medical Center’s Federal School Code number 004688) and apply for a Personal Identification Number (PIN) online. Because the University of Mississippi Medical Center offers special financial aid programs to students from underserved areas, the Medical Center recommends all applicants, regardless of financial need, complete the FAFSA. Applicants who need financial aid assistance should contact the Office of Student Financial Aid at the University of Mississippi Medical Center at (601) 984-1117 or by e-mail.

SCHOLARSHIPS AND LOANS

The Dean's Scholarship, established in 2001, offers a full tuition scholarship to a student in the School of Health Related Professions. Recipients must be in good academic standing.

E.H. Summers Foundation Scholarships were established in 1977 by Mrs. E.H. Summers of Eupora, MS, to provide scholarship assistance for students from Webster, Montgomery, Attala, Carroll and Choctaw counties who are enrolled at the Medical Center.

Federal-State Loan Programs, in which the Medical Center participates, are administered through the Office of Student Financial Aid.

Feild Co-operative Association, Inc. Loan program offers low-interest, long-term loans to residents of Mississippi who have completed a minimum of two years of college work. Students may borrow up to $1,000 per nine-month academic year.

Frances H. Freeman Scholarship Fund was established in 1990, in recognition of Mrs. Freeman and her many contributions to medical technology education. Mrs. Freeman was the first chairman of the School of Health Related Professions’ medical technology department. The scholarship is awarded to a senior medical laboratory science student who has earned a minimum 3.50 grade point average at the University of Mississippi Medical Center and has demonstrated outstanding performance in professional activities.

George C. and Laura B. McKinstry Loan Fund was established in 1973 by Dr. McKinstry in memory of his father and mother to provide low-interest loans to needy students in the School of Health Related Professions.

Health Related Professions Alumni Student Emergency Loan Fund provides small low-interest loans to students repayable within 90 days.

Irene H. Snipes Scholarship Fund was established in 1997 by the Mississippi Hospital Association in memory of Irene H. Snipes. The fund provides assistance to students in good academic standing.

James T. Baird Memorial Scholarship, established in 2000, offers a full tuition scholarship to a student in the School of Health Related Professions. All recipients must be in good academic standing, and preference is given to those students who intend to practice in smaller Mississippi towns and communities.

Lettie Pate Whitehead Foundation Scholarships are available to students in all programs. Awards are based on financial need.
Linda Barkett, DMD Scholarship Endowment is awarded to a senior dental hygiene student in good academic standing with a minimum GPA of 3.25 and who has demonstrated outstanding clinical skills, patient care and community service.

Mississippi Rural Allied Health Professionals Scholarship was established in 2015 by the Robert M. Hearin Support Foundation for selected SHRP allied health students from the state of Mississippi obligated to providing healthcare service in a rural or underserved area equal to one year for each year of scholarship support.

Ottie Schillig Memorial Scholarship Fund was established in 1984 through a gift to the Medical Center from the Schillig Trust. Miss Schillig, a native of Port Gibson, was a noted concert singer. At least one scholarship is available each year to the School of Health Related Professions. All recipients must be in good academic standing, and preference is given to those students who intend to practice in small Mississippi towns and communities.

Pearl and Otis Walters Scholarship Fund is presented annually to a SHRP student(s) with outstanding academic achievement and who intends to practice in smaller Mississippi towns and communities.

Physical Therapy Scholarship was established in 2009 by friends and program alumni. One scholarship is awarded annually to a second-year physical therapy student.

Raymond E. Hogue Scholarship Fund was established in 2008 to recognize the first chairman of the physical therapy program and his contributions to practice in Mississippi. At least one scholarship is awarded annually to a qualified second-year physical therapy student.

Rita and David Halbrook Endowment to the Health Informatics and Information Management program was established in 2007. This scholarship is awarded annually to a qualified applicant.

Russ-Russell Memorial Loan Fund was established by colleagues in memory of Dr. C.R. Russ and Dr. J.V. Russell. This fund provides low-interest loans to qualified dental hygiene students who demonstrate financial need.

William D. Mobley Memorial Scholarship Fund was established in 1976 by Forrest C. Mobley, a 1930 graduate of the university, in memory of his father. This fund provides scholarships for University of Mississippi Medical Center students pursuing a dental hygiene education.

AWARDS AND HONORS

Academic Excellence Award is presented to graduating students in the Department of Occupational Therapy and Department of Physical Therapy who have achieved an overall grade point average of 3.75 or better every semester of continuous enrollment.

Alliance of the Mississippi Dental Association Outstanding Dental Hygiene Student Award is presented to the student in the dental hygiene department who is judged by the faculty to be the outstanding student as demonstrated by academic performance, departmental and school activities, professional service and community involvement.

Alpha Eta Award is presented by the University of Mississippi Medical Center chapter of the Alpha Eta Honor Society to student initiates of Alpha Eta who excel in scholarship and leadership. The recipients of this award will be the University of Mississippi Medical Center nominees for the national Alpha Eta Society's Sidney Rodenberg and Lee Holder Awards.

Alpha Eta Society is a national allied health scholastic and leadership honorary which recognizes outstanding achievement by allied health students, faculty and alumni. Student membership is limited to seniors who have an overall grade point average of 3.50 or better for bachelor degree candidates and 3.75 or better for master's or doctoral degree candidates; each program is limited to no more than 20 percent of the graduating class.

Benton Clay Gordon Award, sponsored by the Mississippi Radiological Society, is presented to the graduating radiologic sciences student who demonstrated outstanding performance in clinical practice.

Bette A. Groat Occupational Therapy Award is presented to the graduating occupational therapy student who has maintained a high level of performance, both clinically and academically, and represents the occupational therapy profession in an exemplary manner before peers and the public.

Celia Robson Sports and Orthopedics Physical Therapy Award, an award honoring Celia Robson, is presented to the graduating physical therapy student demonstrating exemplary attitude and interest in sports physical therapy.

Central Mississippi Dental Hygienists’ Association Award, sponsored by the Central Mississippi Dental Hygienists’ Association, is presented to a graduating dental hygiene student who exhibits outstanding knowledge in the preventive aspects of dental disease and for contributions toward the preventive oral health of patients.

Colgate STAR Award, sponsored by Colgate, is presented to a senior dental hygiene student who best exhibits the interest, understanding and leadership expected in the area of community oral health.

Dean’s Award is presented to graduating students in any discipline, whose activities in the areas of academics, scholarship, school, community or professional service are exemplary and bring honor to the school. The award is presented at the discretion of the dean.

Dean’s List recognizes students for superior academic achievement. Eligibility is based upon at least 12 semester hours in the preceding semester on the Medical Center campus with a semester average of 3.50 or above.

D.J. Banford Award is presented to academically eligible occupational therapy student(s) to support the student’s extraordinary efforts of being a single custodial parent of minor children.

Dr. Virginia Stansel Tolbert Award, sponsored by the Mississippi State Medical Association, is given on Commencement Day to the graduating student who has the highest academic average.

Excellence in Coding Award is presented to the senior health informatics and information management student deemed by the faculty to demonstrate excellence in all aspects and applications of coding and classification systems.
Health Informatics and Information Management Leadership Award is presented to the graduating health informatics and information management student who demonstrates exceptional leadership qualities and achievements.

John Carey Bolen Occupational Therapy Memorial Award is presented to the graduating occupational therapy student who, as deemed by the faculty, exemplifies the spirit of occupational therapy through courage and determination to persevere and overcome adversity to accomplish professional goals while maintaining interest and enthusiasm for the profession.

Juanita Woods Distinguished Service Award, sponsored by the Mississippi Physical Therapy Association in honor of Juanita Woods, is presented to the graduating physical therapy student who has demonstrated involvement in community and school activities; and leadership in the physical therapy profession.

Lois Boackle Jones Memorial Award was established in 2013 by the family of Lois Boackle Jones. One award is given annually to a senior student who has earned a minimum 3.75 grade point average at the University of Mississippi Medical Center. The scholarship rotates among baccalaureate programs.

Magnetic Resonance Imaging Excellence Award is presented to the graduating student in Magnetic Resonance Imaging who has excelled both academically and clinically.

Marshal of the Class Award is presented to the Student Marshal of the Class, selected as the graduating student with highest grade point average in a department on a rotational basis. The Marshal of the Class is responsible for organizing, leading and guiding the graduates at commencement.

Mississippi Blood Services Medical Laboratory Science Outstanding Clinical Achievement Award is presented to the senior medical laboratory science student who demonstrates outstanding clinical achievement in the senior year.

Mississippi Dental Hygienists’ Association Clinical Achievement Award is presented to the graduating dental hygiene student who demonstrates outstanding confidence, competence and interpersonal skills in clinical performance.

Mississippi Occupational Therapy Association Outstanding Leadership Award is presented to a graduating occupational therapy student judged by the faculty to consistently demonstrate exceptional leadership skills in the classroom, on the school campus and in the community.

Mississippi Society of Radiologic Technologists Excellence Award, sponsored by the Mississippi Society of Radiologic Technologists, is presented to the graduating student in Radiologic Sciences who has excelled both academically and clinically.

Neva F. Greenwald Physical Therapy Award is presented to the graduating physical therapy student who has maintained a high level of performance, both clinically and academically, and represents the physical therapy profession in an exemplary manner before peers and the public.

North Mississippi Medical Center Community Outreach Occupational Therapy Award is presented to the graduating occupational therapy student who demonstrates community awareness and promotion of the field of occupational therapy.

North Mississippi Medical Center Community Outreach Physical Therapy Award is presented to the graduating physical therapy student who demonstrates community awareness and promotion of the field of physical therapy.

Nuclear Medicine Technology Excellence Award is presented to the graduating student in Nuclear Medicine Technology who has excelled both academically and clinically.

Occupational Therapy Award of Clinical Excellence is presented to the graduating occupational therapy student who demonstrates outstanding performance, judgment and attitude in clinical performance.

Outstanding Graduate Student Capstone Award is presented to the graduating student in the Master of Health Sciences program who demonstrates academic excellence, as deemed by departmental faculty, and received the highest peer reviewed rating on his/her capstone presentation.

Outstanding Health Informatics and Information Management Student Award is presented to the graduating health informatics and information management student judged by the faculty to be the outstanding student as demonstrated by academic performance, departmental and school activities, professional service and community involvement.

Outstanding Immunohematology Award is presented to the graduating medical laboratory science student with the highest academic average in immunohematology.

Outstanding Occupational Therapy Student Award is presented to the graduating occupational therapy student who is judged by the faculty to be the outstanding student as demonstrated by academic performance, departmental and school activities, professional service and community involvement.

Outstanding Physical Therapy Student Award is presented to the graduating physical therapy student who is judged by the faculty to be the outstanding student as demonstrated by academic performance, departmental and school activities, professional service and community involvement.

Outstanding Undergraduate Student Capstone Award is presented to the graduating student in the bachelor of science in health sciences program who demonstrates academic excellence, as deemed by departmental faculty, and received the highest peer reviewed rating on their capstone presentation.

Phi Kappa Phi is a national honor society recognizing and promoting academic excellence in all fields of higher education and engaging the community of scholars in service to others. Initiates are selected on the basis of academic achievement.

Physical Therapy Award of Excellence, initiated by the physical therapy class of 1983, is presented to a graduating physical therapy student in recognition of overall contribution to physical therapy and the potential for future professional achievement.
Physical Therapy Clinical Education Award, initiated by the physical therapy class of 1991, is presented to a graduating physical therapy student or students who are judged by essay to have a keen insight into the goals and benefits of clinical education and who reflect a commitment to lifelong learning.

Pi Theta Epsilon (Gamma Lambda Chapter) is a specialized honor society recognizing and encouraging superior scholarship among occupational therapy students. The society strives to instill in its members the ideal of respect for learning and commitment to scholarship throughout one’s professional life.

Rebecca J. Yates Professionalism Award is given to a health informatics and information management graduating student who displays exceptional poise, confidence, knowledge and skill.

Regions Bank Health Informatics and Information Management Scholastic Award is presented to the graduating health informatics and information management student who is graduating with the highest academic average. A minimum 3.50 grade point average is required for this award.

Regions Bank Medical Laboratory Science Scholastic Award is presented to the graduating medical laboratory science student who is graduating with the highest academic average. A minimum 3.50 grade point average is required for this award.

Robert B. Weaver Student Physical Therapy Award, sponsored by the physical therapy class of 1998, recognizes a graduating physical therapy student for friendliness, helpfulness, genuine concern, cooperation, effective communications and interpersonal skills.

Scottie Mooney Memorial Outstanding Medical Laboratory Science Student Award is presented to the graduating medical laboratory science student judged by the faculty to be outstanding in clinical interpretation as demonstrated by clinical and academic performance.

Sigma Phi Alpha Dental Hygiene National Honor Society, honors seniors who rank the highest in scholarship, service and leadership. This student must also exhibit potential qualities for future growth and attainment.

Student Research Awards, sponsored by the School of Health Related Professions, acknowledges students for their outstanding achievements in research.

Timothy Moore Student Award is given to the graduating occupational therapy student who is deemed by their peers to be a living example of therapeutic use of self in putting others’ needs before their own. This person exhibits humility, a consistently positive attitude, and a true love of their chosen profession.

Trustmark National Bank Dental Hygiene Scholastic Award is presented to the graduating dental hygiene student who is graduating with the highest academic average. A minimum 3.50 grade point average is required for this award.

Trustmark National Bank Occupational Therapy Scholastic Award is presented to the senior occupational therapy student who is graduating with the highest academic average. A minimum 3.50 grade point average is required for this award.

Trustmark National Bank Physical Therapy Scholastic Award is presented to the graduating physical therapy student who is graduating with the highest academic average. A minimum 3.50 grade point average is required for this award.

Trustmark National Bank Radiologic Sciences Scholastic Award This award honoring Ann Whitfield Fox, is presented to the radiologic sciences student graduating with the highest academic average. A minimum 3.50 grade point average is required for this award.

University Pathology Associates Award, sponsored by the University Pathology Associates, is presented to the graduating medical laboratory science student who demonstrates the highest standards in professionalism and interpersonal communication skills in laboratory knowledge.

Who’s Who Among Students in American Universities and Colleges listing is a national compendium recognizing seniors for outstanding achievements.

ACADEMIC REGULATIONS

The regulations published in the Bulletin are a digest of the rules of the University and School of Health Related Professions. Changes may be made in the regulations at any time to promote the best interests of the university and its students. Students are responsible for knowing the published regulations, policies and standards of the University and the School.

Registration – In order for the student to receive credit for any course, the student must be registered for that course in the Office of Student Records and Registrar.

Attendance – Enrollment in the School of Health Related Professions obligates students to attend all class meetings and complete all assigned course work. No right or privilege exists which permits a student to be absent from any given number of class meetings or to collaborate on any assigned course work or exams unless given permission from the course instructor.

No Show Policy – A “no show student” is defined as an individual registered for a course who fails to begin attendance or actively participate. Students are required to complete the “intent to participate” attendance verification assignment in Canvas for each course by the 15th day of every semester or properly withdraw from the course(s) not attending. Any student who fails to complete the attendance verification assignment in Canvas for each course, by the appointed date in the academic calendar, will be administratively withdrawn (the mandatory course withdrawal and notification to the Registrar’s Office and Financial Aid will be approved and implemented by the academic dean immediately following the 15th day of every semester). Any student receiving financial aid reported as a “no show” by the course instructor will have their financial aid adjusted to reflect actual enrolled hours.

Classroom Behavior – Students are expected to behave respectfully toward class instructors, guest lecturers and fellow students. Cell phones must be turned off or placed on silent mode. Food and drink are only permitted in designated areas. Disruptive behavior in an academic situation or purposely harming academic facilities also is grounds for academic discipline.
Standards of Honesty – The School of Health Related Professions is conducted on a basis of common honesty. Dishonesty, cheating, plagiarism or knowingly furnishing false information to the School are regarded as particularly serious offenses and may result in disciplinary action.

Grading – In determining the final grade to be assigned to each student at the end of a course, all important attributes of each student’s performance in the course are given consideration. This includes cognitive, psychomotor and other attributes such as deportment, interpersonal relationships, attitudes toward course work and other factors which in the opinion of the faculty are important to the student’s future role as a health care professional.

Undergraduate programs:
Final grades will be expressed using this letter system: “A” - Excellent, 90-100; “B” - Good, 80-89; “C” - Average, 75-79; “D” - Below average, 70-74; “F” - Failure, below 70. The quality point value of each letter grade is A-4; B-3; C-2; D-1; and F-0.

Graduate programs:
Final grades will be expressed using this letter system: “A” - Excellent, 90-100; “B” - Good, 80-89; “C” - Less than satisfactory, 75-79; and “F” - Failure, below 75. The quality point value of each letter grade is A-4; B-3; C-2; and F-0.

The grade of “F” may be recorded when the student has failed to meet minimal performance standards, dropped the course without permission, officially withdrawn from the course with a failing grade after the last day specified in the academic calendar, or failed to satisfy requirements for the removal of an incomplete grade. A letter grade of ‘I’ (incomplete) is given if a student’s work is satisfactory but for reasons beyond the student’s control is incomplete at the time grades are recorded. If not removed within the time limit specified by the instructor (not to exceed 12 months), the dean will consult with the instructor and a grade of “W” or “F” will be assigned. In some pass/fail courses, the grade of “P” is recorded for a student who earns a passing grade. “P” grades are not used in computing the student’s grade point average.

An instructor may change a reported grade only if the original grade was incorrectly assigned due to clerical or computational error or if a student meets the requirements for the removal of an “I” grade.

Grade Challenge – The responsibility for evaluating student work and assigning grades lies with the instructor of a course. However, a student may challenge a grade in order to initiate a review process for the student to better understand the reason(s) why the grade was assigned, the instructor to be made aware of and correct possible errors, and academic administrators to review the basis on which a grade has been awarded and, to correct, when appropriate, grades assigned by arbitrary or capricious action or other reasons not related to academic performance.

In all cases of a disputed grade, the student has the burden of proof that the assigned grade was not appropriate. It is for this reason that students should first speak with the instructor. If satisfaction is not found after speaking with the instructor, the student should speak with the program director who will advise the student to submit a written petition to include a copy of the syllabus and any assignment/grading rubrics along with copies of any tests, quizzes, assignments or other written work completed for which the student is challenging the grade. The program director will review the basis on which a grade was awarded and, to correct, when appropriate, grades assigned by arbitrary or capricious action or other reasons not related to academic performance.

Course Withdrawal – Registration for a course makes the student responsible for attending that class until the course is completed or until, with the permission of the dean or designee, the student withdraws from the course. Official withdrawal is facilitated by the dean or designee submitting official notice of withdrawal to the Offices of the Registrar, Student Financial Aid and Student Accounting.
An approved withdrawal, if completed on or before the last day specified in the academic calendar, will not be recorded on the student’s record. Withdrawals authorized after the last day specified in the academic calendar will be recorded as a “W.” Withdrawals authorized after the three quarters point of the semester, specified in the academic calendar, will be recorded as an “F” if failing a course at the time of withdrawal. Failure to officially withdraw will result in the recording of a failing grade in the course in which the student is registered.

Academic Progress – It is the student’s responsibility to ascertain his or her academic progress and seek assistance from the course instructor if the student finds himself or herself performing inadequately.

The program faculty reserves the right to recommend promotion, probation, reclassification, or dismissal of any student. The school reserves the privilege of promoting only those students who, in the judgment of the program faculty, satisfy requirements of scholarship and personal suitability for the profession.

Promotion – Promotion is contingent upon successful academic performance, including demonstration of professional attributes. Recommendations for promotion and graduation are made by program faculty to the dean.

Probation – Undergraduate
Upon the recommendation of undergraduate and post-baccalaureate certificate program faculty, a student may be placed on probation when either the student’s semester or overall cumulative grade point average falls below 2.00 or the student has failed to meet professional expectations.

Probation – Graduate
Upon the recommendation of graduate program faculty, a student may be placed on probation when either the student’s semester or overall cumulative grade point average falls below 3.00 or the student has failed to meet professional expectations.
**Dismissal – Undergraduate**

Upon recommendation of undergraduate and post-baccalaureate certificate program faculty, a student may not be permitted to continue enrollment when:

1. The student has received a grade of “F”;
2. The student’s overall cumulative grade point average is less than 2.00 on all course work completed at the University of Mississippi Medical Center;
3. The student’s grade point average is less than 2.00 in each of two consecutive grading periods;
4. The student has failed to meet professional expectations; or
5. The student incurs an unexplained or unexcused absence from all classes and school and departmental activities for a period of two continuous weeks.

**Dismissal – Graduate**

Upon recommendation of graduate program faculty, a student may not be permitted to continue enrollment when:

1. The student has received a grade of “F”;
2. The student’s overall cumulative grade point average is less than 3.00 at the end of the second semester or any semester thereafter;
3. The student has failed to meet professional expectations; or
4. The student incurs an unexplained or unexcused absence from all classes and school and departmental activities for a period of two continuous weeks.

When it seems advisable, a student may be dismissed from school without having been placed on probation. Students recommended for dismissal may appeal the dismissal by submitting a written request to the dean. In the event of an appeal, the student may continue to attend class until the appeal process has been concluded.

**Appeal of Dismissal** – The appeal procedure is designed to provide the student with a clearly defined avenue for appealing his or her dismissal if he or she believes the dismissal was an arbitrary or capricious action or for other reasons not related to academic performance. The appeal procedure is as follows:

1. The student must submit a written request for an appeal to the dean within five (5) calendar days from the time that the notice of dismissal is sent by e-mail. Failure to make a written appeal within the five calendar day time period shall constitute a waiver of the appeal right and shall result in the sanction becoming final as recommended. The written request for an appeal must set forth the substantive basis for the appeal and be documented in an official letter to the dean. The official letter of appeal can be sent as an email attachment, by regular mail, or hand delivered to the dean.
2. The dean may uphold or deny the appeal or appoint a committee to hear the appeal and forward its written recommendation to the dean. If the dean appoints a committee to hear the appeal, the student will be informed of the time and place of the appeal hearing. The student must appear in person at the hearing to present the appeal to the appeals committee.
3. During an appeal hearing the student shall be permitted, at his or her expense, to have an advisor at the hearing and through all other stages of the disciplinary process. The role of the advisor/legal counsel shall be limited to an advisory capacity only. He/she will not be permitted to make opening or closing statements, question witnesses, or make oral argument. The student is entitled to present witnesses or other evidence, and make opening and concluding statements on his or her own behalf. If the student elects to bring legal counsel to the hearing, he/she must give prior notice to the dean.
4. The decision of the dean will be made in writing and will be sent by e-mail to the student. The dean’s decision shall be final, subject to the student’s right to appeal to the associate vice chancellor for academic affairs following the same procedures as outlined in numbers 1 and 2 above.

**Leave of Absence** – On the recommendation of a department chair and the approval of the dean, a student in good academic standing may be granted a leave of absence for approved medical, personal, or military reasons. The request for leave of absence must be appropriately documented, and in the case of medical leave, reviewed by the director of the Student-Employee Health Services. Leave may not exceed one (1) calendar year. Because of the intensity of the curricula, phasing of the courses, and rapid changes in allied health education, a student may be required to restart courses from the beginning upon returning from leave. Students who fail to return to the academic program within the specified time will be automatically withdrawn from the program. If the student has courses in progress at the time leave of absence is granted, a letter grade of F may be assigned to these courses. A student on leave of absence will not be assigned any academic or clinical responsibilities. Upon return from leave of absence, the student will re-enroll and pay all tuition and fees appropriate for the period of re-enrollment. No leave of absence will be granted without appropriate prior approvals.

**Program Withdrawal** – Registration in an academic program makes the student responsible for completion of the course of study or until, with the permission of the dean or designee, the student withdraws from the curriculum. Official withdrawal is facilitated by the dean or designee submitting official notice of withdrawal to the Offices of the Registrar, Student Financial Aid and Student Accounting.

An approved withdrawal, if completed on or before the last day specified in the academic calendar, will not be recorded on the student’s record. Withdrawals authorized after this date will be recorded as a “W” unless the student has completed the course, in which case the final grade in the course will be recorded. Withdrawals authorized after the three quarters point of the semester, specified in the academic calendar, will be recorded as an “F” if failing a course at the time of withdrawal. Failure to officially withdraw will result in the recording of a failing grade in the course(s) in which the student is registered.
DEGREE REQUIREMENTS
Specific requirements for each degree program may be found in the Bulletin descriptions under the appropriate program. The School of Health Related Professions reserves the right to withhold a degree of any student deemed unsuitable for professional practice.

A degree cannot be granted unless the student has spent the equivalent of at least one full academic year in residency; earned a minimum of 30 semester hours of residence credits; and completed the required course of study in the School of Health Related Professions with the appropriate overall cumulative grade point average on all work at the University of Mississippi Medical Center:

- Bachelor of Science in Dental Hygiene – 2.00 or better on a 4.00 scale
- Bachelor of Science in Health Informatics and Information Management – 2.00 or better on a 4.00 scale
- Bachelor of Science in Health Sciences – 2.00 or better on a 4.00 scale
- Bachelor of Science in Medical Laboratory Science – 2.00 or better on a 4.00 scale
- Bachelor of Science in Radiologic Sciences – 2.00 or better on a 4.00 scale
- Master of Health Informatics and Information Management – 3.00 or better on a 4.00 scale
- Master of Health Sciences – 3.00 or better on a 4.00 scale
- Master of Science in Magnetic Resonance Imaging – 3.00 or better on a 4.00 scale
- Master of Science in Nuclear Medicine Technology – 3.00 or better on a 4.00 scale
- Doctor of Health Administration – 3.00 or better on a 4.00 scale
- Doctor of Physical Therapy – 3.00 or better on a 4.00 scale

Transfer students who spend only one year in residency must attend in the year in which the degree requirements are completed.

COUNSELING
Professional and personal counseling is available from the faculty and administrative officers of the School of Health Related Professions and from other appropriate professionals at the University of Mississippi Medical Center through the Office of Academic Support and outside contract agencies.

STUDENT GOVERNMENT
The students in the School of Health Related Professions participate in all campus-wide student activities and have representatives on the University of Mississippi Medical Center Associated Student Body and the School of Health Related Professions Student Government Council. The council provides the administration and faculty with student opinion on matters affecting student welfare.

DENTAL HYGIENE (BS)
Rebecca M. Barry, PhD, RDH, Department Chair and Program Director

FACULTY

Professors:
- Rebecca M. Barry, PhD, RDH
- Tracy M. Dellinger, DDS

Associate Professors:
- Jamie R. Clay, DMD
- Sandra Horne, DHA, RDH

Assistant Professors:
- Laura Asbill, DMD
- Elizabeth Odom Carr, DHA, RDH
- Teresa B. Duncan, MDH, RDH
- Neeta Mehta, DDS
- Angiola Garner, PhD, RDH
- Charles E. Ramsey, DMD

Instructors:
- Sharon Andrews, BS, RDH
- Barbara Brent, BS, RDH
- Elizabeth Moore, BS, RDH
- Cynthia R. Senior, MEd, RDH

ABOUT THE PROFESSION
Registered dental hygienists are licensed oral health care professionals. Dental hygienists provide preventive services that limit the extent of cavities and periodontal disease as well as promote the overall health and well-being of the oral environment and head and neck region. Dental hygienists assess general and oral health by using a variety of diagnostic aids (comprehensive health histories, head, neck and oral examinations, radiographs and indices). Using the information obtained from the assessment process, the hygienist develops a care plan in conjunction with the patient’s goals and needs, provides oral health education and performs preventive (fluorides, sealants) and therapeutic services (non-surgical periodontal therapy). Baccalaureate graduates are employed as clinical practitioners, educators, researchers, administrators, managers, preventive program developers and consultants. Registered (licensed) dental hygienists practice according to the requirements of individual state dental practice acts.

ACCREDITATION STATUS
The dental hygiene program is accredited by the Commission on Dental Accreditation (CODA), 211 East Chicago Avenue, Chicago, IL 60611-2678. CODA’s phone number is (800) 621-8099.
TRADITIONAL DENTAL HYGIENE

The traditional baccalaureate degree program in dental hygiene is an entry-level program for students who want to obtain a dental hygiene license. Upon completion of the two-year program, students receive a bachelor of science degree and are prepared to apply for and obtain their initial dental hygiene licensure.

PROGRAM ADMISSION REQUIREMENTS

In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the dental hygiene program must:

1. Have completed a minimum of 57 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Have a minimum overall cumulative grade point average of 2.50 on 4.00 scale;
3. Complete 8 hours observation of a licensed or registered dental hygienist in two separate clinical environments;
4. Complete an interview and hands-on test;
5. Submit ACT scores;
6. Complete 12 hours of the science and 24 hours of the non-science prerequisite courses prior to the February 15 application deadline to the program; and
7. Successfully complete (a grade of C or better) the following minimum prerequisite number of required courses below:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>General Biology or Zoology with Lab</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>General Chemistry with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>College Algebra</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>General Psychology</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Intro to Sociology</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humanities</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Anatomy and Physiology with Lab¹</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Microbiology with Lab</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Nutrition</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Abnormal, Adolescent/Child, Educational or Developmental Psychology</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Prerequisites</strong></td>
<td><strong>57</strong></td>
<td></td>
</tr>
</tbody>
</table>

¹One course in anatomy plus one course in physiology or anatomy and physiology combined for two courses.

PROGRAM APPLICATION DEADLINE

All application documents and application fees must be received by the Office of Student Records and Registrar by February 15 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions.

EXPENSES

In addition to tuition, fees, health insurance and professional association dues, students should be prepared to spend $3,000 the first year and $800 the second year at the University of Mississippi Medical Center for necessary books, uniforms and instruments. Additionally, students should be prepared to spend approximately $1,300 for licensure testing fees during the senior year. Online students should be prepared to pay a distance education fee of $150 each semester.

DEGREE AND LICENSURE

Candidates for the dental hygiene degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Dental Hygiene from the University of Mississippi and are eligible to apply to sit for national and state or regional board clinical examinations for licensure as a registered dental hygienist.

PROFESSIONAL COURSE OF STUDY

JUNIOR YEAR

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 305 Dental Hygiene Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>DH 309 Dental Anatomy and Occlusion</td>
<td>2</td>
</tr>
<tr>
<td>DH 313 Radiology I</td>
<td>2</td>
</tr>
<tr>
<td>DH 315 Oral Histology and Embryology</td>
<td>2</td>
</tr>
<tr>
<td>DH 321 Head and Neck Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>DH 332 Scientific Foundations</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>
Spring Semester Hours
DH 312 Primary Preventive Dentistry 3
DH 316 Pathophysiology 3
DH 317 Medical Emergencies Related to the Dental Office 2
DH 318 Dental Hygiene Principles and Practice I 4
DH 328 Radiology II 2
DH 331 Periodontics I 2
DH 340 Evidence-Based Dental Hygiene I 1

SENIOR YEAR
Summer Semester Hours
DH 326 Dental Hygiene Principles and Practice II 2
DH 327 Patient Care I 2
DH 336 Biomaterials in Dentistry 2
DH 420 Pain and Anxiety Management 2
DH 435 Community Dental Health I 1

Fall Semester Hours
DH 405 Patient Care II 3
DH 412 Pharmacology 3
DH 416 Oral Pathology 2
DH 418 Dental Hygiene Principles and Practice III 2
DH 431 Periodontics II 2
DH 437 Community Dental Health II 1
DH 445 Evidence-Based Dental Hygiene II 2

Spring Semester Hours
DH 429 Practice Management 3
DH 432 Dental Hygiene Principles and Practice IV 2
DH 433 Patient Care III 4
DH 443 Community Dental Health III 2
DH 446 Case Studies 1

Total Required Hours 67

ADVANCED STANDING DENTAL HYGIENE
The Advanced Standing Baccalaureate Degree program in dental hygiene is intended to enhance the quality and education of dental hygienists. It enables practicing licensed dental hygienists to update their educational background, enhance their didactic skills, improve their clinical decision-making skills and receive the Bachelor of Science in Dental Hygiene. The program, offered across five semesters, is designed for, but not limited to, part-time, nontraditional students. Online coursework is the method of content delivery.

PROGRAM ADMISSION REQUIREMENTS
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the advanced standing dental hygiene program must:

1. Have completed a minimum of 57 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Have completed a dental hygiene program accredited by the American Dental Association Commission on Dental Accreditation;
3. Submit a copy of a dental hygiene license;
4. Have a minimum cumulative GPA of 2.50 on a 4.00 scale; and
5. Successfully complete (a grade of C or better) the following minimum prerequisite requirements:

Prerequisite Courses Number of Courses Semester Hours
English Composition 2 6
Social or Behavioral Science 1 2 6
College Algebra, Quantitative Reasoning or Higher Mathematics 1 3
Humanities and Fine Arts 2 3 9
Natural Science 1 2 6
Electives 27

Total Prerequisites 57

1Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.
2Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.
3Natural Sciences include courses such as astronomy, biology, chemistry, geology, physics or physical science.
PROGRAM APPLICATION DEADLINE
All application documents and application fees must be received by the Office of Student Records and Registrar by July 1 for fall admission and December 1 for spring admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>DH 303 Professional Writing</td>
<td>3</td>
</tr>
<tr>
<td>DH 311 Current Trends in Preventive Care</td>
<td>3</td>
</tr>
<tr>
<td>DH 319 Pathophysiology/Special Needs Patients</td>
<td>4</td>
</tr>
<tr>
<td>DH 401 Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>DH 412 Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>DH 428 Dental Hygiene Case Studies</td>
<td>4</td>
</tr>
<tr>
<td>DH 430 Advanced Practice Management</td>
<td>3</td>
</tr>
<tr>
<td>DH 434 Dental Hygiene Practices</td>
<td>2</td>
</tr>
<tr>
<td>DH 440 Community Dental Health</td>
<td>4</td>
</tr>
<tr>
<td>DH 455 Capstone Study*</td>
<td>4</td>
</tr>
<tr>
<td>Total Required Hours</td>
<td>34</td>
</tr>
</tbody>
</table>

*Upon the successful completion of DH455, students will be awarded an additional 33 semester hours of transfer elective credit based on required course work completed in the previous program that enables them to sit for and earn their professional credential.

DEGREE
Candidates for the dental hygiene degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Dental Hygiene from the University of Mississippi.

COURSE DESCRIPTIONS

DH 303. Professional Writing. Techniques and practice in intermediate composition strategies, including development, research, and analysis. A study of rhetoric in healthcare and methods for adapting to the needed rhetorical situation by the hygienist. Online, Internet, or Web-based Lecture (3 credit hours)

DH 305. Dental Hygiene Instrumentation. Development and application of the fundamentals of instrumentation. Traditional Lecture/Lab (3 credit hours)

DH 309. Dental Anatomy and Occlusion. A study of dental anatomy and physiology. Focus is on developmental and anatomical differences among teeth, root morphology, anomalies, and includes an introduction to static and dynamic occlusion. Traditional Lecture (2 credit hours)

DH 311. Current Trends in Preventive Care. Focuses on expanding the dental hygienist’s understanding of primary prevent measures used to promote oral health. Included are biofilm control, an update on demineralization/remineralization, motivational interviewing, caries management by risk assessment (CAMBRA), prevention for the oral cancer patient, treating dentinal sensitivity, oral malodor, and current use of pit and fissure sealants. Online, Internet, or Web-based Lecture (3 credit hours)

DH 312. Primary Preventive Dentistry. Focuses on the science and practice of preventive dental care. The etiology and associated risk factors of common oral diseases are presented. The measures that promote oral health and prevent disease are emphasized: tooth brushing, toothpastes, and mouth rinses, interproximal cleaning, diet modification, fluorides, sealants, and oral risk assessments. Also included are health promotion theories and prevention of oral disease in various life stages. Traditional Lecture (3 credit hours)

DH 313. Radiology I. Study of radiology and its use in dentistry as a diagnostic aid. Theories of exposure, processing, evaluation, and interpretation of normal and abnormal structures are taught for both digital and film-based image capture. An emphasis is placed on normal anatomic structures viewed in periapical and panoramic surveys. Traditional Lecture (2 credit hours)

DH 315. Oral Histology and Embryology. A study of the histology of teeth and surrounding structures. A survey of the elements of embryology of the head and neck, especially related to the development of the teeth, dental arches, salivary glands, buccal mucosa, pharynx, and tongue. Traditional Lecture (2 credit hours)

DH 316. Pathophysiology. A study of the pathology and oral health management of disease. Topics include functions of the cells, tissues, organs, and organ systems and how they relate to the disease process, along with the inflammatory process and immunologic response. Emphasizes normal and pathological responses to illness as related to the evaluation and treatment of the dental patient. Traditional Lecture (3 credit hours)

DH 317. Medical Emergencies in the Dental Office. A comprehensive study in the prevention, management, recognition, treatment, and disposition of medical emergencies that may occur in the dental office. Traditional Lecture (2 credit hours)

DH 318. Dental Hygiene Principles and Practice I. An introduction to the Dental Hygiene Process of Care with emphasis on professionalism, infection control, data collection protocol, and patient assessment. Skills are practiced in a clinical setting. Upon successful completion of the lecture and laboratory sessions, students will apply knowledge and treat a patient in the dental hygiene clinic as part of the course completion. Prerequisite: DH305 Corequisite: DH 312 Traditional Lecture/Lab (4 credit hours)

DH 319. Pathophysiology/Special Needs Patients. A study of the pathology and oral health management of disease and injuries. Topics include functions of the cells, tissues, organs, and organ systems and how they relate to the disease process, along with the inflammatory process and immunologic response. Emphasizes normal and pathological responses to illness as related to the evaluation and treatment
of the dental patient. Specific emphasis on dental hygiene care of patients with various systemic, mental, physical disorders, and special needs. Online, Internet, or Web-based Lecture (4 credit hours)

**DH 321. Head and Neck Anatomy.** A detailed study of the skeletal, muscular, vascular and neural features of the head and neck. Traditional Lecture (2 credit hours)

**DH 326. Dental Hygiene Principles & Practice II.** Expands on Dental Hygiene Principles & Practice I through additional lecture and laboratory sessions. Additional clinical procedures and practice will include nutritional counseling, sharpening of instruments, placement of chemotherapeutic and desensitizing agents, placement of sealants, caries detection techniques, use of ultrasonics and air polishers, and taking impressions for study models and bleaching trays. Prerequisites: Fall Junior year courses. Traditional Lecture/Lab (2 credit hours)

**DH 327. Patient Care I.** The development and application of clinical skills in assessment, care plans, implementation, and evaluation of care. Corequisite: DH 326 Traditional Clinical Rotation (2 credit hours)

**DH 328. Radiology II.** Expands the student's knowledge of the didactic portion of DH313 Radiology I. Radiographic surveys via the paralleling technique are exposed and evaluated. Panoramic radiographs are also exposed. Traditional Lecture/Lab (2 credit hours)

**DH 331. Periodontics I.** An introduction to periodontics. The focus is on biological and clinical aspects of periodontology including histopathology, etiology, and diagnosis and treatment planning of periodontal diseases. Traditional Lecture (2 credit hours)

**DH 332. Scientific Foundations.** A study of the functions of the cells, tissues, organs, and organ systems and how they relate to the disease process. The inflammatory process including the immunologic response and healing will be included. Traditional Lecture (3 credit hours)

**DH 336. Biomaterials of Dentistry.** Introduction to biomaterials employed in dentistry. Techniques and materials utilized in the clinical environment will be practiced in the Principles and Practice II lab. Prerequisites: All courses in previous semester. Corequisites: All courses in junior spring semester. Traditional Lecture (2 credit hours)

**DH 340. Evidence-Based Dental Hygiene I.** This course provides students with a practical knowledge of the research process and serves as an introduction to research design. Primary emphasis consists of critical reviews of dental hygiene research studies and their application to clinical practice. Traditional Lecture (1 credit hours)

**DH 401. Research Methods.** An introduction to research design emphasizing systematic investigation involving human subjects as it relates to data collection, analysis, and interpretation of findings. The course is intended to critically review current dental hygiene research culminating in a literature review on a specific topic. Online, Internet, or Web-based Lecture (4 credit hours)

**DH 405. Patient Care II.** Students will expand on the application of patient care to a diversified population. Emphasis on establishing competence in preventive and therapeutic procedures. Prerequisites: DH 326 and DH 327; Corequisite: DH 418 Traditional Clinical Rotation (3 credit hours)

**DH 412. Pharmacology.** A study of drug actions and their mechanisms when introduced to the body under specific conditions and the reactions of the body to these drugs. Special emphasis is placed on pharmacological knowledge that will provide more effective care of the patient by the dental hygienist. Traditional Lecture (3 credit hours)

**DH 416. Oral Pathology.** This course is a study of the definition, distribution, causality, resolution, and outcomes of pathological conditions affecting the head and neck with emphasis on the oral and perioral areas. Traditional Lecture (2 credit hours)

**DH 418. Dental Hygiene Principals & Practice III.** Expands on the Dental Hygiene Principles & Practice courses with continued discussion on theoretical, practical, and ethical concepts in dental hygiene. Specific emphasis on dental hygiene care of patients with various systemic, mental, physical disorders, and special needs will be covered. Prerequisites: All courses in previous semester. Corequisites: All courses in the senior fall semester. Traditional Lecture (2 credit hours)

**DH 420. Pain and Anxiety Management.** The course describes methods used to control pain, fear and anxiety in the dental office. The safe and effective administration of nitrous oxide sedation and administration of local anesthesia is covered. Content areas include anatomy, physiology, pharmacology, and emergency management as they relate to the administration of local anesthetics, nitrous oxide, and pain control. Traditional Lecture (2 credit hours)

**DH 428. Dental Hygiene Case Studies.** Current technology used to prepare and present multimedia presentations regarding selected dental hygiene clinical scenarios. A component of the course involves legal and ethical issues that arise in clinical practice. Online, Internet, or Web-based Lecture (4 credit hours)

**DH 429. Practice Management.** Dental office practice and procedures including the importance of business methods in a profession, record systems including computer applications, accounting and collection of fees, resume development, and interviewing skills. Traditional Lecture (3 credit hours)

**DH 430. Advanced Practice Management.** A study of the delivery of client-centered care practice while emphasizing business methods, records systems, accounting and collection of fees, economics, conflict management, and accommodations to the evolving healthcare system. Online, Internet, or Web-based Lecture (3 credit hours)

**DH 431. Periodontics II.** Builds on the foundation knowledge presented in Periodontology I with emphasis on recognition, therapeutic surgical and non-surgical treatment of periodontal disease. Prerequisites: DH331 and DH 327 Traditional Lecture (2 credit hours)

**DH 432. Dental Hygiene Principles & Practice IV.** Theoretical, practical, and ethical concepts in dental hygiene. Focus on dental/dental hygiene specialties and sub-specialties; dental practice acts; and state and regional licensing differences. Traditional Lecture (2 credit hours)

**DH 433. Patient Care III.** A continuation of comprehensive patient care services with emphasis on establishing entry-level competence in preventive and therapeutic procedures. Traditional Clinical Rotation (4 credit hours)

**DH 434. Dental Hygiene Practices.** Concepts of advanced dental hygiene instrumentation, instrument sharpening, and solutions for common instrumentation difficulties, ergonomic techniques, appointment planning, and instrument sequencing are included. Online, Internet, or Web-based Lecture (2 credit hours)

**DH 435. Community Dental Health I.** Introduction to the history, principles, and ethics of dental public health. Included are theories and techniques of health promotion and disease prevention, distribution of oral diseases, principles of dental epidemiology, and the use of dental indexes. Traditional Lecture (1 credit hours)
DH 437. Community Dental Health II. A continuation of the didactic knowledge and skills obtained in DH 435 Community Dental Health I. Selected readings, discussion, and practical experiences related to planning, implementation, and evaluation of the teaching/learning process in community settings. Traditional Lecture (1 credit hours)

DH 440. Community Dental Health. Development and utilization of skills in the area of community based program planning, implementation, and evaluation. History, principles, and ethics of dental public health are discussed, along with an emphasis on disease prevention, distribution of oral diseases, principles of dental epidemiology, and the use of dental indexes. Students will implement a community-based program utilizing program planning and evaluation skills. Online, Internet, or Web-based Lecture (4 credit hours)

DH 443. Community Dental Health III. An emphasis on promoting oral health in various settings is the focus of this course. Planning, implementation and evaluation of field work experiences across diverse populations will occur. Traditional Lecture/Lab (2 credit hours)

DH 445. Evidence-Based Dental Hygiene II. This course is designed to provide students with an opportunity to expand research knowledge in two dimensions: principles and applications. Students will develop evidence-based decision making skills for identifying, searching for, and interpreting scientific research that can be used in the delivery of patient care. The course will culminate with the development and presentation of a table clinic at a professional meeting. Traditional Lecture (2 credit hours)

DH 446. Case Studies. A review of the oral health literature related to patient care. Emphasis is placed on clinical reasoning and decision-making in the treatment of a periodontal or unique clinic patient, resulting in a written and verbal presentation. Traditional Lecture (1 credit hours)

DH 455. Capstone Study. Students examine, synthesize, and develop solutions to issues faced in oral healthcare. In cooperation with the course advisor and/or program director, students will select a contemporary topic in dental hygiene and develop a comprehensive project or paper evaluating solutions to the particular issue and present the paper to faculty according to course guidelines. Online, Internet, or Web-based Lecture (4 credit hours)

HEALTH ADMINISTRATION (DHA)
Jessica H. Bailey, PhD, RHIA, CCS, Department Chair and Program Director
Angela Burrell, MSN, RN, Program Coordinator

FACULTY

Professors:
- Jessica H. Bailey, PhD, RHIA, CCS
- Kaye Bender, PhD, RN
- Warren May, PhD
- Susan Taylor, PhD
- Helen R. Turner, MD, PhD

Associate Professor:
- Mitzi Norris, PhD, MT(ASCP), SM(ASCP)

Assistant Professors:
- Jessylen Age, DNP, RN
- Cindy Dishongh, MHS, RHIA
- Elizabeth Franklin, PhD
- Ellen Jones, PhD
- Richard Roberson, JD
- Rob McElhaney, PhD, CPA
- Brian Rutledge, PhD

ABOUT THE PROGRAM
The Doctor of Health Administration (DHA) program offers an advanced educational opportunity in health care leadership. The program trains leaders in administration, education and clinical areas to navigate changes in the health care environment. The program is designed to provide graduates an opportunity to assume upper level managerial and leadership roles within the health care delivery system. The program is also designed to prepare licensed, certified and/or registered health care practitioners for faculty and leadership positions within health care organizations.

The DHA program, offered across nine semesters, is devised for, part-time, nontraditional students. Online course work is the primary method of content delivery with minimal face-to-face mandatory on-campus sessions.

PROGRAM ADMISSION REQUIREMENTS
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the doctor of health administration program must meet the following requirements:

1. Awarded a master’s degree or professional doctorate from a regionally accredited institution of higher learning with a GPA of at least 3.00 on a 4.00 scale in a health care related field or a master’s degree from a regionally-accredited institution of higher learning with a GPA of at least 3.00 on a 4.00 scale and five or more years of experience in health care management, health care policy, clinical medical specialty, etc.;
2. Official scores on the Graduate Record Exam (GRE) and,
3. Current curriculum vitae or resume.

A limited number of applicants will be admitted to the health administration program with students selected on a competitive basis. Qualification does not ensure admission.

PROGRAM APPLICATION DEADLINES
All application documents and application fees must be received by the Office of Student Records and Registrar by December 1 for summer admission. Final transcripts indicating graduate degree completion must be included in these documents. In addition, the GRE must be
official and completed within the last 5 years. General application information may be found in the General Application Procedures section of the School of Health Related Professions.

EXPENSES
In addition to tuition, students should be prepared to spend $1,500 to $2,000 per year for textbooks and supplies. Online students should be prepared to pay a distance education fee of $150 each semester.

DEGREE AND CERTIFICATION
Candidates for the doctor of health administration degree must have completed the prescribed curriculum with an overall cumulative grade point average of 3.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Credits representing research and preparation of the doctoral project (dissertation) hours are earned as directed by the plan of study. The acceptability of the doctoral project proposal and defense is determined by the student’s Advisory Committee and Program Chair. Following satisfactory completion of all requirements, students will be awarded the doctor of health administration from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

### COURSE DESCRIPTIONS

**COURSE**

<table>
<thead>
<tr>
<th>COURSE</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>DHA 700 Leadership Strategies in Health Entities</td>
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</tr>
<tr>
<td>DHA 706 Foundations of Health Policy</td>
<td>3</td>
</tr>
<tr>
<td>DHA 712 Strategic Change Management</td>
<td>3</td>
</tr>
<tr>
<td>DHA 718 Current Trends in Accreditation &amp; Licensure</td>
<td>3</td>
</tr>
<tr>
<td>DHA 724 Healthcare Law, Regulations &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>DHA 730 Organizational Behavior for Health Professions</td>
<td>3</td>
</tr>
<tr>
<td>DHA 736 Health Economics</td>
<td>3</td>
</tr>
<tr>
<td>DHA 748 Communications in Health Organizations</td>
<td>3</td>
</tr>
<tr>
<td>DHA 754 Fundamentals of Applied Research</td>
<td>3</td>
</tr>
<tr>
<td>DHA 756 Quality Processes in Health Organizations</td>
<td>3</td>
</tr>
<tr>
<td>DHA 760 Fiscal Responsibility &amp; Accountability</td>
<td>3</td>
</tr>
<tr>
<td>DHA 764 Health Systems</td>
<td>3</td>
</tr>
<tr>
<td>DHA 770 Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>DHA 776 Applied Research Techniques</td>
<td>3</td>
</tr>
<tr>
<td>DHA 798 Doctoral Project</td>
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<tr>
<td>Total Required Hours</td>
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</tr>
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</table>

**DHA 700. Leadership Strategies in Health Entities.** An exploration of leadership strategies that generate value, competitive advantage, and growth in health entities. Students will be exposed to core concepts, analytical techniques, and frameworks. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 706. Foundations of Health Policy.** An examination of health policy and economic issues as they relate to the healthcare delivery system. The complex arrangements and interactions among governmental, private not-for-profit, and for-profit systems are explored within a context including economic, legal, socio-political, and public policy perspectives. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 712. Strategic Change Management.** A disquisition of the strategic change management process in the delivery of healthcare. Within the context of healthcare mission, planning, resource allocation, program implementation, and program evaluation are examined. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 718. Current Trends in Accreditation & Licens.** An inquiry into the foundations, requirements, and trends in various accrediting and licensing entities within healthcare. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 724. Healthcare Law, Regulations & Ethics.** An exploration of the legal and ethical issues and dilemmas in the delivery of healthcare. The principles and practical application of laws and regulations affecting operational decisions of healthcare providers, health plans and third party payers along with the social, moral, and ethical issues encountered in the balance of patient interests, needs, and rights. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 730. Org Behavior for Health Professions.** An examination of organizational theory as applied in the delivery of healthcare. Areas studied include psychological and cultural processes affecting recruitment and selection, factors influencing training and development, the scientific method as applied to healthcare organizations, theories and practices influencing employee performance, effective management theory and practice, engaging and involving employees in organizational processes, and employee well-being. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 736. Health Economics.** A disquisition of economic theory, trends, market issues, and applications as related to healthcare delivery. The application of economic analytical techniques to healthcare markets, quality improvement, and patient safety will be explored. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 748. Communications in Health Organizations.** An exploration of concepts and issues related to communication among internal entities and with external entities in the delivery of healthcare. Interprofessional collaborative practice, interprofessional education, knowledge management, negotiation, mediation, and public relations will be studied. Online, Internet, or Web-based Lecture (3 credit hours)

**DHA 754. Fundamentals of Applied Research.** An exploration of concepts and issues related to communication among internal entities and with external entities in the delivery of healthcare. Interprofessional collaborative practice, interprofessional education, knowledge management, negotiation, mediation, and public relations will be studied. Online, Internet, or Web-based Lecture (3 credit hours)
DHA 756. Quality Processes in Health Organization. A review of methods to improve healthcare systems and healthcare delivery. Students will learn to focus on identifying opportunities to improve process, developing methods to identify factors that impact process, and using data to determine appropriate actions. Online, Internet, or Web-based Lecture (3 credit hours)

DHA 760. Fiscal Responsibility & Accountability. An examination of financial management and operations theory as related to healthcare delivery. Online, Internet, or Web-based Lecture (3 credit hours)

DHA 764. Health Systems. A discussion of the evolution, structure, and current issues in the health systems. Students will be exposed to provider, supplier, and payer aspects of health systems as well as to healthcare disparity within the United States but especially within Mississippi. Online, Internet, or Web-based Lecture (3 credit hours)

DHA 770. Epidemiology. An exploration of epidemiological principles and tools of investigation as applied to managerial decision-making in healthcare delivery. Students will examine health behaviors and lifestyles that impact demand on healthcare delivery systems, require integration of health services, necessitate preventive programs, and affect continuity of care. Online, Internet, or Web-based Lecture (3 credit hours)

DHA 776. Applied Research Techniques. A continuation of DHA 754, Fundamentals of Applied Research. Students will apply qualitative research methods to community health problems and critique research in terms of design, technique, analysis, and interpretation. Online, Internet, or Web-based Lecture (3 credit hours)

DHA 798. Doctoral Project. Research, findings, recommendations, and conclusions of a doctoral research project will be reported. Course may be repeated for credit but not more than 18 hours may be applied to the doctoral degree. Online, Internet, or Web-based Dissertation (3-12 credit hours)

HEALTH INFORMATICS AND INFORMATION MANAGEMENT (BS)

Lisa Morton, PhD, RHIA, Department Chair
Angela Morey, MSM, RHIA, Program Director

FACULTY

Professors:
Jessica H. Bailey, PhD, RHIA, CCS
Ann H. Peden, PhD, RHIA, CCS

Associate Professors:
Jamil Ibrahim, PhD
Lisa Morton, PhD, RHIA

Assistant Professors:
Rebecca Butler, MEd
Angela Morey, MSM, RHIA
Delia Owens, BSN, MSN, JD

Instructors:
Shelia Bullock, MBA, BSN, CCDS, CCS
Carisa D. Nixon Haire, RN, RHIA
Dorthy Young, PhD, MHSA

ABOUT THE PROFESSION

Health informatics and information management professionals are experts in managing the collection, storage, retrieval and interpretation of health care information. To provide the highest quality health care delivery, health care information is used not only for patient care, but also in medical legal issues, research, planning and evaluation. Opportunities for employment are found in a variety of settings, including hospitals, clinics, rehabilitation centers, home health agencies, managed care organizations, insurance agencies, governmental agencies, educational institutions and research centers.

ACCREDITATION STATUS

The health informatics and information management baccalaureate program is accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 233 North Michigan Avenue, 21st Floor, Chicago, IL 60601-5800. CAHIIM's phone number is (312) 233-1183.

TRADITIONAL HEALTH INFORMATICS AND INFORMATION MANAGEMENT

The traditional baccalaureate degree program in health informatics and information management is an entry-level program for students who want to pursue a career in health informatics and information management and to obtain the registered health information administrator (RHIA) credential from the American Health Information Management Association. Upon completion of the two-year program, students receive a bachelor of science degree and are prepared to apply for and obtain their RHIA.

The program is designed for full- or part-time, nontraditional students. Online coursework is the method of content delivery.

PROGRAM ADMISSION REQUIREMENTS

In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the health informatics and information management program must:

1. Have completed a minimum of 60 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Have an overall cumulative grade point average of 2.50 on a 4.00 scale;
3. Submit ACT scores; and
4. Successfully complete (a grade of C or better) the following minimum prerequisite requirements:
**Prerequisite Courses**

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Social or Behavioral Science¹</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humanities and Fine Arts²</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Anatomy and Physiology with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Basic Computer Concepts and Applications</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Electives</td>
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<td>22</td>
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<tr>
<td><strong>Total Prerequisites</strong></td>
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<td><strong>60</strong></td>
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</table>

¹Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.

²Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.

**PROGRAM APPLICATION DEADLINE**

All application documents and the application fees must be received by the Office of Student Records and Registrar by March 1 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

**EXPENSES**

In addition to tuition and fees, traditional students should be prepared to spend $2,500 over the course of the program for books and supplies. In addition to books and supplies, students are required to take the Registered Health Information Administrator examination during the senior year at a cost of approximately $300. The cost of the registry examination and all required items are covered in the financial aid package for qualifying students. Online students should be prepared to pay a distance education fee of $150 each semester.

**DEGREE AND CERTIFICATION**

Candidates for the health informatics and information management degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Health Informatics and Information Management from the University of Mississippi and are eligible to apply to take the registration examination of the American Health Information Management Association for the RHIA designation.

**PROFESSIONAL COURSE OF STUDY**

**JUNIOR YEAR**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Description</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>HI 301 Health Information Management across Health Care Settings</td>
<td>4</td>
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<tr>
<td></td>
<td>HI 311 Database Applications in Health Information Systems</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>HI 318 Medical Concepts I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HI 326 Human Resources Management</td>
<td>3</td>
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<td><strong>Total</strong></td>
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<tr>
<td><strong>Spring</strong></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>HI 319 Medical Concepts II</td>
<td>4</td>
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<td></td>
<td>HI 325 Coding and Classification Systems for Diagnoses</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>HI 329 Health Care Data Structure</td>
<td>3</td>
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<tr>
<td></td>
<td>HI 416 Research Design and Statistics for Health Informatics &amp; Information Management</td>
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<td><strong>Total</strong></td>
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**SENIOR YEAR**

<table>
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<tr>
<th>Semester</th>
<th>Course Description</th>
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<tr>
<td><strong>Summer</strong></td>
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<tr>
<td></td>
<td>HI 309 Topics in Health Informatics &amp; Information Management</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HI 327 Coding and Classification Systems for Procedures</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HI 429 Advanced Privacy, Security and Legal Issues</td>
<td>3</td>
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<td><strong>Total</strong></td>
<td><strong>9</strong></td>
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<tr>
<td><strong>Fall</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>HI 417 Research in Healthcare Settings</td>
<td>2</td>
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<tr>
<td></td>
<td>HI 424 Revenue Cycle and Reimbursement Management</td>
<td>3</td>
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<tr>
<td></td>
<td>HI 425 Health Care Systems Design and Analysis</td>
<td>4</td>
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<tr>
<td></td>
<td>HI 428 Quality Management &amp; Performance Improvement Strategies</td>
<td>3</td>
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<td></td>
<td><strong>Total</strong></td>
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</tr>
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</table>
PROGRESSION HEALTH INFORMATICS AND INFORMATION MANAGEMENT

This progression program is designed to allow a health care professional holding the Registered Health Information Technician (RHIT) credential from the American Health Information Management Association to receive credit for previous educational and professional experience and to earn a baccalaureate degree in health informatics and information management from the University of Mississippi Medical Center. The program, offered across five semesters, is designed for, but not limited to, part-time, nontraditional students. Online coursework is the method of content delivery.

PROGRAM ADMISSION REQUIREMENTS

In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the progression health informatics and information management program must:

1. Have completed a minimum of 60 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Hold a current RHIT credential; and
3. Successfully complete (a grade of C or better) the following minimum prerequisite requirements:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
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<td>Humanities and Fine Arts(^1)</td>
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<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
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<tr>
<td>Natural Science(^3)</td>
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<td>6</td>
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<tr>
<td>Social or Behavioral Science(^2)</td>
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<td>Electives</td>
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<td><strong>Total Prerequisites</strong></td>
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<td><strong>60</strong></td>
</tr>
</tbody>
</table>

\(^1\)Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.

\(^2\)Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.

\(^3\)Natural Sciences include courses such as astronomy, anatomy and physiology, biology, chemistry, geology, physics or physical science.

PROGRAM APPLICATION DEADLINE

All application documents and the application fees for the progression program in health informatics and information management must be received by the Office of Student Records and Registrar by March 1 for summer admission, March 1 for fall admission, and October 1 for spring admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

EXPENSES

In addition to tuition and fees, progression students should be prepared to spend $2,500 over the course of the program for books and supplies. In addition to books and supplies, students are required to take the Registered Health Information Administrator examination during the senior year at a cost of approximately $300. The cost of the registry examination and all required items are covered in the financial aid package for qualifying students. Online students should be prepared to pay a distance education fee of $150 each semester.

PROFESSIONAL COURSE OF STUDY

**JUNIOR YEAR**

**Fall**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>HI 311 Database Applications in Health Information Systems</td>
<td>4</td>
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<tr>
<td>HI 428 Quality Management &amp; Performance Improvement Strategies</td>
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**Spring**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>HI 329 Health Care Data Structure</td>
<td>3</td>
</tr>
<tr>
<td>HI 416 Research Design and Statistics for Health Informatics &amp; Information Management</td>
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</table>

**SENIOR YEAR**

**Summer**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>HI 309 Topics in Health Informatics &amp; Information Management</td>
<td>3</td>
</tr>
<tr>
<td>HI 429 Advanced Privacy, Security and Legal Issues</td>
<td>2</td>
</tr>
</tbody>
</table>
**COURSE DESCRIPTIONS**

**HI 301. HEALTH INFORMATION MANAGEMENT ACROSS HEALTH CARE SETTINGS.** Health information systems in various healthcare settings including record content, access and retention, accreditation and licensure, electronic health records, and comparative reimbursement systems. (Lecture/Lab) (4 semester hours)

**HI 309. Topics in Health Informatics & Infor Mgt.** Overview of health informatics and methods of applying information technology to health information management functions including collection, storage, management, analysis, and reporting of healthcare data and information; the impact of selected national health information initiatives on health information systems including initiatives related to the classification of healthcare data. Online, Internet, or Web-based Lecture (3 credit hours)

**HI 311. Database Applications in Health Info Sys.** Basic principles of data structure and data quality; data modeling; database design and development; management of data resources and databases. Online, Internet, or Web-based Lecture/Lab (4 credit hours)

**HI 318. Medical Concepts I.** A study of current clinical concepts in diseases and their treatments with emphasis on medical language. Prerequisite: Anatomy and Physiology Online, Internet, or Web-based Lecture (3 credit hours)

**HI 319. Medical Concepts II.** A study of current clinical concepts with emphasis on specified diseases and their causes, lesions, manifestations, and treatments. Prerequisite: HI 318 Online, Internet, or Web-based Lecture (3 credit hours)

**HI 325. Coding & Classif S ystems for Diagnoses.** Classifying diagnoses with limited introduction to classifying procedures; case mix classifications; relationship between various classifications and provider reimbursement mechanisms for inpatients. Prerequisite HI 318. Pre or Corequisite HI 319 Online, Internet, or Web-based Lecture/Lab (4 credit hours)

**HI 326. Human Resource Management.** Principles and policies of personnel administration including interviewing, evaluating, and compensating with emphasis on healthcare settings. Online, Internet, or Web-based Lecture (3 credit hours)

**HI 327. Coding & Classification Systems for Proc.** Classifying procedures; case-mix classifications; relationship between various classifications and provider reimbursement mechanisms. Prerequisite HI 318, Pre or Corequisite HI 319 Online, Internet, or Web-based Lecture/Lab (3 credit hours)

**HI 329. Healthcare Data Structure.** A study of healthcare data, its collection, analysis, and uses with emphasis on infrastructure and regulatory requirements to support electronic health records. Prerequisite HI 311 Online, Internet, or Web-based Lecture (3 credit hours)

**HI 330. Special Topics.** Elective. Content varies. May be repeated for credit. Prerequisite: Permission of program director Online, Internet, or Web-based Lecture (1-3 credit hours)

**HI 416. Research Design & Statistics for HIIM.** A study of basic topics of research design and statistics. Special focus on critical review and techniques of applied research for health information professionals. Online, Internet, or Web-based Lecture (4 credit hours)

**HI 422. Management of Health Information Systems.** Best practices in planning, organizing, staffing and directing health information services, including human resource management. Online, Internet, or Web-based Lecture (3 credit hours)

**HI 423. Health Care Compliance and Documentation Improvement.** Effective strategies for managing compliance with accreditation, legal, and regulatory standards, including HIPAA privacy and security, reimbursement processes, and documentation improvement. Lecture (3 credit hours)

**HI 424. Revenue Cycle and Reimbursement Mgmt.** Clinical data and reimbursement management; compliance strategies and reporting; charge description master management; case-mix management; audit processes for compliance and reimbursement; payment systems (such as prospective payment systems, APCs, RBRVS, RUGs, MSDRGs, etc.); revenue cycle management. Online, Internet, or Web-based Lecture (3 credit hours)

**HI 425. Healthcare Systems Design and Analysis.** A study of computerized health information systems with emphasis on systems design and analysis and systems integration. Prerequisite: HI 311 Online, Internet, or Web-based Lecture/Lab (4 credit hours)

**HI 426. Affiliation.** This supervised professional practice experience requires the student to spend 160 clock hours practicing health information administration in an affiliated healthcare organization (or one that supports or regulates healthcare organizations or healthcare professionals). Projects completed will relate to didactic courses taken previously or concurrently. Course also includes professional presentations from the students. Online, Internet, or Web-based Clinical Rotation (4 credit hours)
HI 427. Seminar. A study of methods of identifying and arriving at satisfactory solutions to problems that may be encountered in health information management. Comprehensive examination. Online, Internet, or Web-based Lecture (1 credit hours)

HI 428. Qual Mgmt & Perf Improvement Strategies. Management of the quality assessment and performance improvement function, including benchmarking, statistical quality control and risk management; utilization and resource management; disease management process (such as case management, critical paths); outcomes measurement (such as patient, customer satisfaction, disease specific); benchmarking techniques; patient and organization safety initiatives. Prerequisite: HI 416 Online, Internet, or Web-based Lecture (3 credit hours)

HI 429. Adv Privacy, Security, & Legal Issues. Management of systems to ensure privacy, confidentiality, security of health information; health information laws, regulations, and standards; elements of compliance programs; professional ethical issues; legal Health Record in an electronic environment; e-discovery guidelines. Online, Internet, or Web-based Lecture (3 credit hours)

HI 430. Special Topics. Treatment of specific subjects not dealt with fully in other courses. This elective course may be repeated for credit. Online, Internet, or Web-based Lecture (3 credit hours)

HI 451. Directed Study. Projects related to advanced health informatics and information management topics to demonstrate management and leadership skills. Online, Internet, or Web-based Lecture (3 credit hours)

HI 485. Health Information Administration Professional Practicum. Project-based practice of health information administration in affiliated health care organizations that support or regulate health care organizations or health care professionals. Projects completed will relate to didactic courses taken previously or concurrently. Clinical Rotation (1 credit hour)

**HEALTH INFORMATICS AND INFORMATION MANAGEMENT (MHIIM)**

Lisa Morton, PhD, RHIA, Department Chair and Program Director

**FACULTY**

**Professors:**
- Jessica H. Bailey, PhD, RHIA, CCS
- Ann H. Peden, PhD, RHIA, CCS

**Associate Professors:**
- Jamil Ibrahim, PhD
- Lisa Morton, PhD, RHIA

**Assistant Professors:**
- Rebecca Butler, M.Ed.
- Shamsi Daneshvari, PhD
- Monte E. Luehlfling, MSSM
- Angela Morey, MSM, RHIA

**Instructors:**
- Shelia Bullock, MBA, BSN, CCDS, CCS
- Carisa N. Haire, RN, RHIA
- Dorthy Young, PhD, MHSA

**ABOUT THE PROFESSION**

The Master of Health Informatics and Information Management program prepares health care professionals for leadership roles in a health care system that increasingly relies on information technology. It provides students with knowledge and skills in the areas of information systems analysis, design, implementation and management; health information exchange; social and ethical issues in health care computing; privacy and security of electronic health information; database and knowledge management; decision support systems; and other emerging areas.

The program has two tracks wherein students may earn a Master of Health Informatics and Information Management degree. The health informatics track prepares graduates to assume a critical role in the development and implementation of electronic health records in hospitals and health systems as related to structure, function and transfer of information, socio-technical aspects of health computing and human-computer interaction.

Specifically, graduates will be able to do the following:

1. Describe the impact of modern computing technologies and the Internet on biomedical computing;
2. Examine sociotechnical aspects of health care computing;
3. Evaluate human computer interaction and incorporate human factors engineering principles into user interface design;
4. Examine computer skills required for implementation of technical security applications and software requirements;
5. Explore networking principles to achieve system interoperability and health information exchange; and
6. Develop a map for clinical terminologies, vocabularies and ontologies.

The health information management track prepares graduates to assume a critical role in the development and implementation of electronic health records in hospitals and health systems, to manage patient health information and medical records, administer computer information systems, collect and analyze patient data, and use classification systems and medical terminologies.

Specifically, graduates will be able to do the following:

1. Apply knowledge of health data structure, content, and acquisition to the management of health care data;
2. Apply knowledge of clinical classification systems to manage processes, policies, and procedures to ensure the accuracy of coded data;
3. Manage processes for compliance and reporting of health care data based on knowledge of reimbursement methodologies, regulations, and revenue cycle management;
4. Analyze and present data for quality management, utilization management, risk management, and other patient care related studies; and
5. Apply knowledge of research methods to facilitate biomedical research while ensuring adherence to Institutional Review Board (IRB) processes and policies.

This track will allow graduates to test for the Registered Health Information Administrator credential from the American Health Information Management Association if an additional six hours are completed.

The Master of Health Informatics and Information Management, offered across six semesters, is devised for, but not limited to, part-time, non-traditional students. Online coursework is the method of content delivery.

ACCREDITATION STATUS
The health informatics track of the Master of Health Informatics and Information Management program is in candidacy with the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 233 North Michigan Avenue, 21st Floor, Chicago, IL 60601-5800. CAHIIM’s phone number is (312) 233-1183.

PROGRAM ADMISSION REQUIREMENTS
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related professions, candidates seeking admission to the Master of Health Informatics and Information Management program must:

1. Have a bachelor’s degree from a regionally-accredited institution of higher learning with a GPA of at least 3.00 on a 4.00 scale on the last 60 hours attempted;
2. Submit an official GRE report;
3. Submit a resume;
4. Submit an essay; and
5. Successfully complete (a grade of “C” or better) a course in Human Anatomy and Physiology or a pre-approved substitute

Students will be selected on a competitive basis. Qualification does not ensure admission.

PROGRAM APPLICATION DEADLINE
All application documents and the application fees must be received by the Office of Student Records and Registrar by March 1 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline, if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

EXPENSES
In addition to tuition and fees, students should be prepared to spend approximately $1,700 for books and supplies. Students who sit for the Registered Health Information Administrator examination can expect to incur an additional cost of approximately $300. Online students should be prepared to pay a distance education fee of $150 each semester.

DEGREE AND CERTIFICATION
Candidates for the master of informatics and information management degree must have completed the prescribed curriculum with an overall cumulative grade point average of 3.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the master of informatics and information management from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>COURSE</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI 601 Medical Concepts or HI 609 Information Technology &amp; Applications</td>
<td>3</td>
</tr>
<tr>
<td>HI 611 Research Design and Statistics in Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HI 630 Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HI 632 Databases and Knowledge Management</td>
<td>3</td>
</tr>
<tr>
<td>HI 634 Development of Electronic Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HI 609 Capstone in Health Informatics &amp; Information Management</td>
<td>3</td>
</tr>
<tr>
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</tbody>
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<table>
<thead>
<tr>
<th>HEALTH INFORMATICS TRACK</th>
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</tr>
</thead>
<tbody>
<tr>
<td>HI 607 Management and Leadership in Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HI 614 Privacy and Security for Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HI 617 Epidemiology and Public Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HI 619 Health Information and Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>HI 631 Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HI 638 Clinical Vocabularies &amp; Classification Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>18</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>HEALTH INFORMATION MANAGEMENT TRACK*</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI 600 Health Information Management</td>
<td>3</td>
</tr>
<tr>
<td>HI 606 Management of Health Information Services and Systems</td>
<td>3</td>
</tr>
<tr>
<td>HI 609 Information Technology &amp; Applications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
HI 610 Topics in Privacy, Security and Legal Aspects of Health Information 3
HI 613 Health Care Performance Improvement Strategies 3
HI 615 Health Care Reimbursement and Financial Management 3

Total Required Hours 18

*Should a student desire to sit for the Registered Health Information Administrator national exam, the student would need to pursue the health information management track and add the following electives. Students pursuing these electives are eligible to sit for the RHIA exam by virtue of CAHIIM accreditation of the baccalaureate program:

HI 621 Clinical Classification Systems I* 1
HI 622 Clinical Classification Systems II* 1
HI 623 Clinical Classification Systems III* 1
HI 624 Clinical Classification Systems IV* 1
HI 681 Professional Practice Management Experience I* 1
HI 682 Professional Practice Management Experience II* 1

COURSE DESCRIPTIONS

HI 600. Health Information Management. Health information systems in various settings including record content, record retention requirements, accreditation and licensure, filing and numbering systems, vital statistics, electronic health records, documentation requirements, quality assessment, and reimbursement methodologies. Online, Internet, or Web-based Lecture (3 credit hours)

HI 601. Medical Concepts. A study of current clinical concepts in diseases and their treatments with emphasis on medical language, specified diseases and their causes, lesions, manifestations, and treatments. Online, Internet, or Web-based Lecture (3 credit hours)

HI 606. Mgmt of Health Info Services & Systems. Development of managerial and leadership skills for managing health information services through group interaction, projects, and reading; principles and policies of human resource management including interviewing, evaluating, and compensating with emphasis on healthcare settings. Online, Internet, or Web-based Lecture (3 credit hours)

HI 607. Management and Leadership in Health Info. Management and leadership strategies with emphasis on health informatics issues. Online, Internet, or Web-based Lecture (3 credit hours)

HI 609. Information Technology & Applications. Overview of healthcare data and methods of applying information technology to health information functions including collection, storage, management, analysis, and reporting of healthcare data and information; the impact of selected national health information initiatives on health information systems. Online, Internet, or Web-based Lecture (3 credit hours)

HI 610. Privacy, Sec, & Legl aspects of Hlth Info. Principles of law and their application in the healthcare field; the health record as a legal document, release of information, confidential communications, consents, authorizations, and risk management. HIPAA and HITECH requirements for privacy and security. Online, Internet, or Web-based Lecture (3 credit hours)

HI 611. Research Design and Statistics in Health. Health informatics research design and statistics. Special focus on critical review and techniques of applied research. Online, Internet, or Web-based Lecture (3 credit hours)

HI 612. Health Care Performance Improvement Stra. Principles of performance improvement applied to healthcare organizations. Online, Internet, or Web-based Lecture (3 credit hours)

HI 614. Privacy and Security for Health Inform. Assessment of security vulnerabilities and threats, exploration of technical applications and software tools used for securing health information systems. Addresses compliance with legal and regulatory guidelines. HIPAA and HITECH requirements for privacy and security. Online, Internet, or Web-based Lecture (3 credit hours)

HI 615. Healthcare Reimbursement & Financial Man. A study of the relationship between health information management and healthcare reimbursement. Online, Internet, or Web-based Lecture (3 credit hours)

HI 617. Epidemiology & Public Health Informatic. An overview of the principles, methods, and issues in epidemiology and public health informatics. Course topics include disease determinants in human populations; public health infrastructure, surveillance and reporting; evidence-based community health assessment; outbreak prediction and prevention; and technological advancements within the field. Online, Internet, or Web-based Lecture (3 credit hours)

HI 619. Health Information and Computer Science. Principles of computer science theory and networking, including programming languages, system integration tools, electronic data exchange, technical security applications, system testing, and IT system documentation. Online, Internet, or Web-based Lecture (3 credit hours)

HI 621. Clinical Classifications Systems I. Overview of classification systems for diagnoses and procedures; case mix classifications; relationship between various classifications and provider reimbursement mechanisms. Online, Internet, or Web-based Lecture (1 credit hours)

HI 622. Clinical Classifications Systems II. Classifying diagnoses. Online, Internet, or Web-based Lecture (1 credit hours)

HI 623. Clinical Classifications Systems III. Classifying inpatient procedures. Online, Internet, or Web-based Lecture (1 credit hours)

HI 624. Clinical Classifications Systems IV. Classifying outpatient procedures. Online, Internet, or Web-based Lecture (1 credit hours)

HI 630. Health Information Systems. An examination of health informatics topics including the electronic health record, clinical information systems, healthcare policy analysis and development, technology and data standards, health information exchange, and consumer health informatics. Online, Internet, or Web-based Lecture (3 credit hours)

HI 631. Health Informatics. An exploration of the health informatics domain including emergence of the discipline, health information systems research, clinical data standards theory and development, medical decision-making principles, biomedical simulations, artificial intelligence applications, and principles for knowledge management system design. Online, Internet, or Web-based Lecture (3 credit hours)
HI 632. Databases and Knowledge Management. A study of advanced use of healthcare data and knowledge management that addresses database methods in healthcare, data administration, data architecture, data modeling, data dictionary development, advanced data search and access techniques (data mining), advanced information/data analysis, and presentation techniques. Online, Internet, or Web-based Lecture (3 credit hours)

HI 634. Dev. Of Electronic Health Info Sys. A study of technology applications used in healthcare, including electronic health records, that emphasizes project management, user interface design, system selection, and security management. Online, Internet, or Web-based Lecture (3 credit hours)

HI 638. Clinical Vocabularies and Class Systems. An examination of standardized clinical terminology, medical vocabulary standards, data mapping, and natural language processing including the classifications used for statistical reporting as well as terminologies required for interoperability standards. Online, Internet, or Web-based Lecture (3 credit hours)

HI 681. Professional Practice Experience I. In this supervised professional practice experience, students will spend 40 clock hours observing and/or practicing health information administration in affiliated healthcare organization(s) (or organizations that support or regulate healthcare organizations or healthcare professionals). A minimum of 5 additional clock hours will be spent preparing project reports and presenting findings to faculty and/or fellow students. Projects completed will relate to didactic courses taken previously or concurrently. Online, Internet, or Web-based Practicum/Internship (1 credit hours)

HI 682. Professional Practice Mgmt Experience II. Building on Professional Practice Experience I, this supervised professional practice experience requires the student to spend 40 clock hours practicing health information administration in an affiliated healthcare organization (or one that supports or regulates healthcare organizations or healthcare professionals). A minimum of 5 additional clock hours will be spent preparing project reports and presenting findings to faculty and/or fellow students. Projects completed will relate to didactic courses taken previously or concurrently. Online, Internet, or Web-based Practicum/Internship (1 credit hours)

HI 683. Special Topics Prof Practice Mgmt Exp. In this elective supervised professional practice experience, students will spend 40 clock hours per credit hour practicing health informatics or information administration in affiliated healthcare organization(s) (or organizations that support or regulate healthcare organizations or healthcare professionals). A minimum of 5 additional clock hours per credit hour will be spent preparing project reports and presenting findings to faculty and/or fellow students. Projects completed will relate to areas of special interest to the student. Course may be repeated for credit. Prerequisite: Permission of program director Online, Internet, or Web-based Practicum/Internship (1-6 credit hours)

HI 690. Special Topics. Elective covering selected issues, problems, research techniques, materials, and policies. Content varies. May be repeated for credit. Prerequisite: Permission of program director Online, Internet, or Web-based Lecture (1-3 credit hours)

HI 699. Capstone: Health Informatics & Info Mgmt. A study of methods of identifying and researching problems in health informatics and information management. Online, Internet, or Web-based Lecture (3 credit hours)

HEALTH SCIENCES (BS)
Juaniae D. Taylor, PhD, Department Chair
Linda Croff-Poole, MPH, RRT, Program Director

FACULTY

Professor:
Warren May, PhD

Associate Professors:
Jamil Ibrahim, PhD
Marc Nivet, EdD, MBA

Assistant Professors:
Jessylen Age, DNP, MSHA, RN
Linda Croff-Poole, MPH, RRT
Joni Roberts, DrPH, CHES
Kristy Alpe, MSBA, RHIA
John R. Hodnett, DNP, LPC, RN
Dana West, PhD

Instructors:
Kim McGaugh, MHS, OTR/L

ABOUT THE PROGRAM
The Health Sciences program is designed to provide students with a firm foundation for understanding the role of health care in contemporary society. The program helps students develop the analytical skills and personal characteristics necessary for health care leadership positions.

The program has two tracks wherein students may earn a bachelor of science degree. Track I provides the opportunity for health care practitioners who hold an associate degree in a health care field and are licensed, registered or certified as health care professionals to earn the bachelor of science. Track II is designed for support personnel in operations of health care centers or organizations to earn a bachelor of science degree. Health education is also an integral component of the curriculum.

The program is devised for, but not limited to, part-time, non-traditional students. Online instruction is the primary method of content delivery.
PROGRAM ADMISSION REQUIREMENTS

In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the health sciences program must:

1. Have an associate degree or a minimum of 60 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Submit
   a. A copy of a current license, registration, or certification in a health care field (Track I)
   b. An employee verification from their previous or current supervisor in a health care institution (Track II only); or
   c. Documentation detailing observation of various clinical and/or administrative support roles within the health care environment (Track II only); or
   d. Documentation of a recent community service within the health care environment (Track II only)
3. Have a minimum overall cumulative grade point average of 2.00 on 4.00 scale; and
4. Successfully complete (a grade of C or better) the following minimum prerequisite requirements:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Social or Behavioral Science¹</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humanities and Fine Arts²</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Natural Sciences³</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td><strong>Total Prerequisites</strong></td>
<td></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

¹Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.
²Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.
³Natural Sciences include courses such as astronomy, anatomy and physiology, biology, chemistry, geology, physics or physical science.

The program director and the dean must approve any exceptions to the requirements listed above. All applicants are subject to interview. An applicant’s certification, license, registration and transcript(s) will be reviewed to determine the appropriate education track eligibility.

READMISSION POLICY

This policy is for Bachelor of Science in Health Sciences students who have been inactive for two (2) or more consecutive semesters and those students who have reapplied to the program after a voluntary or involuntary absence.

- Students who have been inactive for two (2) consecutive semesters are subject to being administratively withdrawn by the School.
- Students will be required to re-apply to the program via the UMMC Registrar’s office and pay a new application fee.
- Updated transcripts will not be required as long as the student has not attended any other school during the period of inactivity.
- A written letter requesting consideration for readmission and an updated resume must be submitted for committee review. It is required that the letter include reasoning for inactivity.
- The admissions committee will review the student’s file. Once reviewed, the admission committee will determine if an interview is required. All readmissions are considered on a case-by-case basis.

Students applying for readmission are not guaranteed admission. All readmission requests must be made prior to the application deadline for the semester in which the student wishes to enroll.

Students who were placed on probation and are reapplying will only be considered for readmission on a probationary status. If readmitted, the student must complete the first 6 hours of returning classes with a 2.0 or higher GPA in order to have the probationary status removed.

PROGRAM APPLICATION DEADLINE

All application documents and the application fees must be received by the Office of Student Records and Registrar by April 15 for summer admission and June 15 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

EXPENSES

In addition to tuition, general fees and health insurance, students should be prepared to spend approximately $500 per year for textbooks. Online students should be prepared to pay a distance education fee of $150 each semester.

DEGREE AND CERTIFICATION

Candidates for the health sciences degree must have completed the prescribed curriculum with a cumulative grade point average of 2.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Health Sciences from the University of Mississippi. A student must remain in good academic standing and may not repeat more than two courses.
### PROFESSIONAL COURSE OF STUDY (Track I – Health Care Practitioner)
<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 300 Survey and Settings of Health Care Delivery</td>
<td>3</td>
</tr>
<tr>
<td>HS 303 Writing for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HS 305 Cultural Competency in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 310 Principles of Management in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 311 Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>HS 313 Health Education in Health Care Systems</td>
<td>3</td>
</tr>
<tr>
<td>HS 408 Organizational Behavior in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 409 Introduction to Policy, Advocacy &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HS 420 Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td>HS 427 Finance and Reimbursement in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 454 Health Promotion and Implementation*</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>33</strong></td>
</tr>
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</table>

*Upon the successful completion of HS 454, students will be awarded an additional 27 semester hours of transfer elective credit based on required course work completed in the associate degree program that enables them to sit for and earn their professional credential.

### PROFESSIONAL COURSE OF STUDY (Track II –Health Care Operations)
<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 300 Survey and Settings of Health Care Delivery</td>
<td>3</td>
</tr>
<tr>
<td>HS 303 Writing for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HS 305 Cultural Competency in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 308 Foundations of Disease and Health</td>
<td>3</td>
</tr>
<tr>
<td>HS 311 Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>HS 313 Health Education in Health Care Systems</td>
<td>3</td>
</tr>
<tr>
<td>HS 320 The Role of Quality Improvement in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 330 Introduction of Statistics</td>
<td>3</td>
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<tr>
<td>HS 408 Organizational Behavior in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>HS 409 Introduction to Policy, Advocacy &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>HS 418 Community Health</td>
<td>3</td>
</tr>
<tr>
<td>HS 420 Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td>HS 454 Health Promotion and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>Approved Electives</td>
<td><strong>21</strong></td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

### COURSE DESCRIPTIONS

**HS 300. Survey & Settings of Healthcare Delivery.** An introductory review of the healthcare delivery system including topics such as the changing role of healthcare providers, hospitals and other facilities, and governmental agencies. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 303. Writing for Healthcare Professionals.** A structured, writing intensive course designed to prepare healthcare professionals to write analytical papers. The writing process, writing style, organization, and clarity of communication are major emphasis in this course. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 305. Cultural Competency in Healthcare.** This course is designed to increase awareness of the need to provide healthcare to patients with diverse values, beliefs, and behaviors. Emphasis will be placed on tailoring healthcare delivery to meet patients’ social, cultural, and linguistic needs. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 308. Foundations of Disease and Health.** The interface of health and basic disease processes. Topics include the definition, symptoms, etiology, treatment, and prognosis of each disease process. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 309. Health Information Privacy & Security.** A study of the history and continuing evolution of American law regarding health information use as currently presented in the Health Insurance Portability and Accountability Act. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 310. Principles of Management in Healthcare.** Management and leadership theories, functions, and skills required for success in the healthcare organization, with an emphasis on supervisory management. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 311. Introduction to Research.** An introductory study of research design with an emphasis on the analysis, synthesis, and application of evidence-based information in the healthcare delivery system. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 313. Health Education in Health Care Systems.** An introduction to health education programs for the healthcare professional working in health care facilities and systems. Includes development and delivery of programs and current problems in continuing professional health education. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 320. The Role of Quality Improvement in Health.** This course examines the organization and operations of hospitals. The respective roles of hospital staff will be discussed. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 326. Human Resources in Healthcare.** Principles and policies of personnel administration including interviewing, evaluating, and compensating with emphasis on healthcare settings. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 330. Introduction to Statistics.** An introductory course in statistical decision-making methods including sampling, measures of central tendency, frequency distributions, probability, probability distributions, sampling methods, hypothesis testing, statistical inference, correlations, regression, and analysis of variance. Online, Internet, or Web-based Lecture (3 credit hours)
HS 401. Introduction to Global Health. This course is designed to provide a comprehensive overview of principles and theoretical perspectives of health education in global settings. Online, Internet, or Web-based Lecture (3 credit hours)

HS 408. Organizational Behavior in Healthcare. An overview of the nature of employee behavior and the function of management in the healthcare organizational setting. Human behavior will be examined at individual, group, and organizational levels, including strategies to increase productivity. Online, Internet, or Web-based Lecture (3 credit hours)

HS 409. Introduction to Policy, Advocacy & Ethics. An introduction to the study of interrelationships between political issues, sociological issues, ethical issues, public policy information and legal implications in the health care delivery system. This course covers the basic forms for advocacy, public policy, messaging, base building, and effective communication. Online, Internet, or Web-based Lecture (3 credit hours)

HS 415. Pedagogical Concepts in Health Education. An introduction to methods and practices of teaching for the health educator. Online, Internet, or Web-based Lecture (3 credit hours)

 HS 418. Community Health. This course is designed to provide a comprehensive overview of principles and theoretical perspectives of community health and underserved populations. Online, Internet, or Web-based Lecture (3 credit hours)

HS 420. Leadership Development. An introduction to the theory and practice of leadership. Students will explore how leadership theory can inform and direct the way leadership is practiced in the healthcare environment. Online, Internet, or Web-based Lecture (3 credit hours)

HS 423. Health Promotion. An in-depth review of interventions, programs, and strategies for promoting the prevention of common disease influenced by cultural, social, economic, and educational factors. Online, Internet, or Web-based Lecture (3 credit hours)

HS 424. Epidemiology. A study of the causes, incidence, and distribution of common diseases including the humanistic and economic implications of these diseases. Online, Internet, or Web-based Lecture (3 credit hours)

HS 425. Health Behavior. An examination of attitudes and beliefs of personal wellness and healthy living designed to improve health behavior. Online, Internet, or Web-based Lecture (3 credit hours)

HS 426. Issues in Health Education. A study of current issues in health education. Online, Internet, or Web-based Lecture (3 credit hours)

HS 427. Finance and Reimbursement in Healthcare. Introduction to healthcare budgeting and finance, including legislation, federal programs, managed care, and subscription programs. Online, Internet, or Web-based Lecture (3 credit hours)

HS 430. Strategic Decision Making in Healthcare. The application of applied statistics and data analysis for strategic decision making in healthcare organizations. Online, Internet, or Web-based Lecture (3 credit hours)

HS 454. Health Promotion and Implementation. A capstone course in which students develop, implement and evaluate a health promotion project utilizing the theoretical concepts, knowledge, and skills gained from previous courses taken in the BSHS program. Prerequisite: Senior standing and permission of the program director are required. Online, Internet, or Web-based Lecture (3 credit hours)

HS 490. Special Topics. Interprofessional elective. Content varies. May be repeated for credit. Prerequisite: Permission of program director. Online, Internet, or Web-based Lecture (3 credit hours)

HEALTH SCIENCES (MHS)
Juanyce D. Taylor, PhD, Department Chair and Program Director

FACULTY

Associate Professors:
Jamil Ibrahim, PhD

Assistant Professors:
Jessylen Age, DNP, RN
Linda Croff-Poole, MPH, RRT

Instructor:
Kim McGaugh, MHS, OTR/L

ABOUT THE PROGRAM
The Master of Health Sciences program offers an advanced educational opportunity in health care leadership. It was created to provide graduates an opportunity to assume upper level managerial and leadership roles within the health care delivery system. The program prepares licensed, certified and/or registered health care practitioners for faculty and leadership positions within the higher education system.

The program is devised for, but not limited to, part-time, non-traditional students. Online instruction is the primary method of content delivery.

PROGRAM ADMISSION REQUIREMENTS
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the Master of Health Sciences program must:

1. Have a bachelor’s degree from a regionally accredited institution of higher learning with a GPA of at least 3.0 on a 4.0 scale in a health care-related field. Qualifying fields include clinical laboratory science, cytotechnology, dental hygiene, health care administration, health informatics, medical sciences, nursing, occupational therapy, physical therapy, psychology, public health, radiologic sciences, respiratory therapy, speech pathology, medicine or another health-related field. Professional experience may also be considered. Other degrees may be considered acceptable at the discretion of the dean.

2. Submit an official score from the GRE, GMAT or MCAT; and

3. Submit a letter of recommendation from a current supervisor or previous instructor.

A limited number of applicants will be admitted to the Master of Health Sciences program during each admission cycle. Students will be selected on a competitive basis. Qualification does not ensure admission.
READMISSION POLICY

This policy is for master of health sciences students who have been inactive for two (2) or more consecutive semesters.

- Students who have been inactive for two (2) consecutive semesters are subject to being administratively withdrawn by the School.
- Students will be required to re-apply to the program via the UMMC Registrar’s office and pay a new application fee.
- Updated transcripts will not be required as long as the student has not attended any other school during the period of inactivity.
- A written letter requesting consideration for readmission and an updated resume must be submitted for committee review. It is required that the letter include reasoning for inactivity.
- The admissions committee will review the student’s file. Once reviewed, the admission committee will determine if an interview is required. All re-admissions are considered on a case-by-case basis.

Students applying for readmission are not guaranteed admission. All readmission requests must be made prior to the application deadline for the semester in which the student wishes to enroll.

Students who were placed on probation and are reapplying will only be considered for readmission on a probationary status. If readmitted, the student must complete the first 6 hours of returning classes with a 3.0 or higher GPA in order to have the probationary status removed.

TRANSFER POLICY

This policy is for Master of Health Sciences students who may have completed related graduate level coursework in a similar program.

- Graduate students must complete 75% of course work through courses offered by the University of Mississippi Medical Center.
- Graduate transfer work must have been completed at a regionally accredited institution in the United States.
- Graduate transfer work must have been completed with a grade of “B” or better. No transfer course work taken as pass/fail or a similar grading system will be accepted.
- Graduate transfer credit will not be allowed for undergraduate level courses, continuing education units (CEUs), and non-credit certificate programs.
- A maximum of nine (9) credit hours may be allowed for transfer toward the master of health sciences degree, as approved by the program director and the dean. The student transfer credit form must be completed.

PROGRAM APPLICATION DEADLINE

All application documents and the application fees must be received by the Office of Student Records and Registrar by April 15 for summer admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

EXPENSES

In addition to tuition, fees and health insurance, students should be prepared to spend approximately $500 per year for textbooks. Online students should be prepared to pay a distance education fee of $150 each semester.

DEGREE AND CERTIFICATION

Candidates for the master of health sciences degree must have completed the prescribed curriculum with a cumulative grade point average of 3.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the master of health sciences degree from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>COURSE</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 600 Personal and Ethical Leadership</td>
<td>3</td>
</tr>
<tr>
<td>HS 604 Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>HS 608 Health Care Law</td>
<td>3</td>
</tr>
<tr>
<td>HS 612 Data Analysis and Outcomes Assessment</td>
<td>3</td>
</tr>
<tr>
<td>HS 616 Health Care Administration</td>
<td>3</td>
</tr>
<tr>
<td>HS 630 Health Policy and Society</td>
<td>3</td>
</tr>
<tr>
<td>HS 650 Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>HS 652 Program Development and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>HS 654 Contemporary Issues in Health Care Finance</td>
<td>3</td>
</tr>
<tr>
<td>HS 656 Grant and Proposal Development</td>
<td>3</td>
</tr>
<tr>
<td>HS 658 Workforce Development</td>
<td>3</td>
</tr>
<tr>
<td>HS 699 Integrated Health Care Leadership</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS

**HS 600. Personal and Ethical Leadership.** An exploration of applied leadership, personal leadership skills, and the similarities and differences between leadership and management. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 604. Organizational Behavior.** An exploration of organizational structure and processes including interpersonal relations and team development with a particular focus on healthcare environments. Additionally, this course will provide the healthcare manager with a
framework for decision making, an understanding of work teams and employee motivation, perspectives for handling of conflict, tools for assessing work design, and an evolution of an organizational behavior framework. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 608. Healthcare Law.** An examination of the legal regulation of healthcare processes and the healthcare industry including access to care, finance, antitrust, contracts, medical malpractice, administrative law, patient rights, licensure, and risk management. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 612. Data Analysis and Outcomes Assessment.** A study of basic applied statistical methods used in the summarization of management and health data for decision making, especially as they relate to the interpretation of data. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 616. Healthcare Administration.** A practical and quantitative approach to operation and management of healthcare delivery systems including administration, financial systems, staffing, departmental functions, and performance evaluation. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 630. Health Policy and Society.** An examination of theory and methods of health policy analysis in the public, nonprofit, and private health sectors. Emphasis is placed on the role of analysis during various phases of the public policy formulation and implementation cycle. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 650. Resource Management.** An examination of the functions of administrators in healthcare and academic environments in relation to personnel, finance, resource allocation and strategic planning. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 652. Program Development and Implementation.** An exploration of program planning and development that includes market conditions, needs assessment, planning, implementation, allocation of resources and evaluation. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 654. Contemporary Issues in Healthcare Finan.** A study of current issues in health economics including problems and options in the financing of healthcare, physician and hospital services, mental health, long term care, and healthcare reimbursement. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 656. Grant and Proposal Development.** An examination of issues in healthcare workforce development including the knowledge and skills necessary to assess needs and develop and facilitate interventions designed to educate/train, recruit, prepare and retain a viable employee workforce. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 658. Workforce Development.** An examination of issues in healthcare workforce development including the knowledge and skills necessary to assess needs and develop and facilitate interventions designed to educate/train, recruit, prepare and retain a viable employee workforce. Online, Internet, or Web-based Lecture (3 credit hours)

**HS 690. Special Topics.** Selected issues, problems, research techniques, materials, and policies. Content varies. May be repeated for credit. Prerequisite: Permission of program director. Online, Internet, or Web-based Lecture (1-3 credit hours)

**HS 699. Integrated Healthcare Leadership.** A capstone course in which students utilize the knowledge, skills and insight gained from previous courses taken in the MHS program and from their individual life experiences to develop, implement, and evaluate a project designed to improve some facet of healthcare delivery or program administration. Online, Internet, or Web-based Lecture (3 credit hours)

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**MAGNETIC RESONANCE IMAGING (MS)**

**Kristi Moore, PhD, RT (R) (CT) ARRT, Radiologic Sciences Department Chair**

**Asher Street, MS, RT (R) (MR) ARRT, Program Director & Clinical Coordinator**

**FACULTY**

**Associate Professors:**

- Kristi Moore, PhD, RT (R) (CT) ARRT

**Assistant Professors:**

- Mark R. Gray, PhD, RT (R) ARRT
- Seena Edgerton, DHA, RT (R) (M) ARRT
- Mike Ketchum, DHA, RT (R) ARRT
- Sherry J. West, DHA, RT (R) (N) CNMT, ARRT

**Instructors:**

- Seena Edgerton, DHA, RT (R) (M) ARRT
- Mike Ketchum, DHA, RT (R) ARRT
- Asher Street, MS, RT (R) (MR) ARRT

**ABOUT THE PROFESSION**

Magnetic resonance imaging (MRI) technologists are highly skilled radiologic professionals utilizing specialized computer systems, radiofrequencies, and a strong magnetic field to create images of cross sectional anatomy for radiologists’ interpretation. The MRI technologist functions in multiple areas including issues surrounding magnet safety, performing imaging procedures, monitoring patient comfort, ensuring quality assurance, and communicating and consulting with radiologists. The MRI technologist must possess communication skills to interact with compassion to both healthy and critically ill patients.

Magnetic resonance imaging continues to grow as a diagnostic imaging technique, with the use of MRI quadrupling in recent years. The future expectations of the introduction of higher magnetic field strengths into clinical imaging departments, coupled with advanced imaging techniques such as functional MRI (fMRI) and spectroscopy, provide more detailed imaging for radiologists. The integration of MRI with Positron Emission Tomography (PET/MRI) is paving the way for the future in molecular level imaging, advancing disease management and improving care for all patients. Molecular imaging is being hailed as the next great advance in imaging. These developments provide technologists with a variety of skill enrichment opportunities and career advancements for the future.

**ACCREDITATION STATUS**

The magnetic resonance imaging program is seeking accreditation by the Joint Review Committee on Education in Radiologic Technology (JRCERT), 20 N. Wacker Drive, Suite 2850, Chicago, IL, 60606. JRCERT’s phone number is (312)704-5300.

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**THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER**
PROGRAM ADMISSION REQUIREMENTS
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the Master of Science program in Magnetic Resonance Imaging must:
1. Hold current ARRT (R) registration or be registry-eligible;
2. Have completed a Bachelor of Science degree from a regionally accredited institution of higher learning;
3. Have successfully completed (a grade of C or better) two courses of Anatomy and Physiology with lab;
4. Have a minimum overall cumulative grade point average of 3.00 on a 4.00 scale;
5. Submit official GRE report that includes verbal, quantitative, and analytical writing scores;
6. Provide three (3) letters of recommendation:
   • One (1) from current or past Radiologic Sciences Program Director
   • One (1) from current Radiologic Sciences Clinical Coordinator, if student, or Supervisor, if employed
   • One (1) from a member of the community;
7. Provide documentation of a minimum of 8 hours of observation in a Magnetic Resonance Imaging Department;
8. Have current CPR certification at the time of registration; and
9. Complete an interview.

*The program strongly recommends that students take a general physics course and additional science course as prerequisite courses.

PROGRAM APPLICATION DEADLINE
All application documents and the application fees must be received by the Office of Student Records and Registrar by April 1. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Registrar’s office after the deadline at 601-984-1080.

DEGREE AND CERTIFICATION
Students who satisfactorily complete all the requirements will be awarded the Master of Science in Magnetic Resonance Imaging from the University of Mississippi and will be eligible to take the examination for certification offered by the American Registry of Radiologic Technologists (ARRT). Candidates for certification must have an overall grade point average (GPA) in University of Mississippi Medical Center coursework of 3.0 or higher on a 4.0 scale. Most states require licensure in order to practice; however, state licenses are usually based on the results of the ARRT certification examinations. Be advised that a felony conviction may affect a graduate’s ability to sit for the ARRT certification examination or attain state licensure.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI 601 Magnetic Resonance Imaging Foundations</td>
<td>3</td>
</tr>
<tr>
<td>MRI 605 Magnetic Resonance Imaging Principles</td>
<td>3</td>
</tr>
<tr>
<td>MRI 610 Magnetic Resonance Imaging Physics</td>
<td>3</td>
</tr>
<tr>
<td>MRI 612 Applied Magnetic Resonance Imaging I</td>
<td>3</td>
</tr>
<tr>
<td>MRI 624 Applied Magnetic Resonance Imaging II</td>
<td>3</td>
</tr>
<tr>
<td>MRI 650 Clinical Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>MRI 651 Clinical Practicum II</td>
<td>4</td>
</tr>
<tr>
<td>MRI 652 Clinical Practicum III</td>
<td>4</td>
</tr>
<tr>
<td>MRI 660 Magnetic Resonance Imaging Seminar</td>
<td>4</td>
</tr>
<tr>
<td>MRI 690 Magnetic Resonance Imaging Research I</td>
<td>3</td>
</tr>
<tr>
<td>MRI 699 Magnetic Resonance Imaging Research II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Program Hours</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

COURSE DESCRIPTIONS
MRI 601. Magnetic Resonance Imaging Foundations. An introduction to practice management and clinical practices in the MRI environment, including aspects of patient care, procedural performance and competency. Basic applications of computers and digital imaging in the field of radiology are examined. A foundation of ethical and legal issues in the radiologic sciences is presented. An overview of imaging sciences in healthcare, including regulation and professional standards. Introduction to venipuncture in a laboratory setting. Traditional Lecture/Lab (3 credit hours)

MRI 605. Magnetic Resonance Imaging Principles. An introduction to physical principles of MRI, instrumentation, image formation, and basic imaging parameters. The course will include an overview of the history of MRI. Fundamental principles covered include magnetism, signal production, contrast characteristics, imaging planes, and image formation. Instrumentation information details operation and use of equipment, radiofrequency systems, and gradient systems. Traditional Lecture (3 credit hours)

MRI 610. Magnetic Resonance Imaging Physics. In depth information regarding pulse sequences, image formation, and contrast. Emphasis is placed on details of MR parameters, pulse sequences, methods of data acquisition, imaging options, image artifacts, and quality assurance to enable the student to maximize MR quality by understanding the fundamentals of MR imaging. Traditional Lecture (3 credit hours)

MRI 612. Applied Magnetic Resonance Imaging I. Details the knowledge base necessary to perform standard magnetic resonance imaging procedures. Content includes MRI imaging procedures and sectional anatomy and physiology relating to the central nervous system and the musculoskeletal system. The study of normal anatomy and pathologic conditions aid the student in recognizing the need
for imaging changes based on these conditions. Topics covered include clinical considerations regarding contrast administration and safety, magnetic field safety, and procedural considerations for optimal scanning techniques. Traditional Lecture/Lab (3 credit hours)

MRI 624. Applied Magnetic Resonance Imaging II. A continuation of MRI 612. Details the knowledge base necessary to perform standard magnetic resonance imaging procedures. Content includes MRI imaging procedures and sectional anatomy and physiology relating to the cardiovascular system, thorax, abdomen, pelvis, and special imaging procedures. The study of normal anatomy and pathologic conditions aid the student in recognizing the need for imaging changes based on these conditions. Topics covered include clinical considerations regarding contrast administration and safety, magnetic field safety, and procedural considerations for optimal scanning techniques. Traditional Lecture/Lab (3 credit hours)

MRI 650. Clinical Practicum I. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of magnetic resonance imaging procedures. Content includes experience in MR scanning techniques, safety procedures, image evaluation, image post processing, patient care, and professional development. Traditional Clinical Rotation (3 credit hours)

MRI 651. Clinical Practicum II. A continuation of MRI 650. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of magnetic resonance imaging procedures. Content includes experience in MR scanning techniques, safety procedures, image evaluation, image post processing, patient care, and professional development. Traditional Clinical Rotation (4 credit hours)

MRI 652. Clinical Practicum III. A continuation of MRI 651. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of magnetic resonance imaging procedures. Content includes experience in MR scanning techniques, safety procedures, image evaluation, image post processing, patient care, and professional development. Traditional Clinical Rotation (4 credit hours)

MRI 660. Magnetic Resonance Imaging Seminar. Prepares the student for the ARRT MRI certification exam. Content will integrate the clinical skills and classroom theories in a comprehensive review to include the specifications of the content categories: patient care, imaging procedures, data acquisition and processing, and physical principles of image formation. Traditional Lecture (4 credit hours)

MRI 690. Magnetic Resonance Imaging Research I. Reinforces the conceptual basis for interpreting professional literature and making evidence-based practice decisions. Both qualitative and quantitative research designs are explored in-depth, and students are instructed in the research process with emphasis on the literature review. Student groups complete a literature review on a relevant topic under the direction of a faculty advisor. Online, Internet, or Web-based Lecture (3 credit hours)

MRI 699. Magnetic Resonance Imaging Research II. A continuation of the research process introduced in MRI 690. The didactic emphasis is on development of research methodology, statistical analyses, and the compilation and dissemination of a final research project. Student groups complete the details unique to their research project under the direction of a faculty advisor. Online, Internet, or Web-based Lecture (3 credit hours)

CLINICAL FACILITIES
Clinical educational experiences in magnetic resonance imaging are provided in conjunction with the following health care facilities:

- G.V. “Sonny” Montgomery VA Medical Center – Jackson
- Madison Radiological Group, LLC – Madison
- Mississippi Sports Medicine – Jackson
- St. Dominic Hospital – Jackson
- University of Mississippi Medical Center – (University Hospital and Health System) – Jackson
- University of Mississippi Medical Center – (Jackson Medical Mall) – Jackson

MEDICAL LABORATORY SCIENCE (BS)
La'Toya Richards-Moore, PhD, MLS (ASCP) CM, Department Chair and Program Director
Mohamed Ayman Asfour, MD, Medical Director

FACULTY

Professors:

- Hamed A. Benghuzzi, PhD, FAIMBE, FBSE
- Mohamed Ayman Asfour, MD
- Elgenaid Hamadain, PhD

Associate Professors:

- La'Toya Richards-Moore, PhD, MLS(ASCP)CM
- Stacy Hull Vance, PhD, MLS(ASCP)CM
- Renee Wilkins, PhD, MLS(ASCP)CM

- Felicia M. Tardy, PhD, MLS(ASCP)CM
- Thomas Wiggers, MS, SH(ASCP)CM
- Elgenaid Hamadain, PhD

Instructor:

- Jana K. Bagwell, BS

ABOUT THE PROFESSION

Medical laboratory science is a dynamic profession that is ever-changing in terms of technology and professional expertise. The medical laboratory scientist is a highly skilled scientist who functions in multiple roles. Some of these roles include performing and evaluating diagnostic laboratory procedures on body fluids, developing new diagnostic procedures, supervising biomedical research projects, providing technical expertise, consulting, managing clinical and research laboratory departments, and analyzing and implementing laboratory information systems. The major areas of interest in laboratory science are hematology, immunohematology (transfusion medicine), clinical microbiology, clinical chemistry, clinical immunology, body fluid analysis and molecular diagnostics.
Career opportunities for the medical laboratory scientist are readily available and include technical and management positions in hospitals and reference laboratories, research in biomedical companies, forensic medicine, public health, sales and marketing, private consulting, health care administration and education.

As one of the fastest growing industries of the 21st century, biotechnology is developing new diagnostic tests for clinical laboratories, research laboratories, forensic laboratories and the pharmaceutical industry. The skills of the molecular scientist are in great demand in the biotechnology industry. Molecular biology has developed more than any other science in the last 10 years.

The certified molecular biologist works in clinical, research, forensic and biotechnology laboratories. There is an exponential growth in opportunities in this field of study.

**ACCREDITATION STATUS**
The medical laboratory science program is accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS), 5600 North River Road, Suite 720, Rosemont, IL 60018-5119. NAACLS’s phone number is (773) 714-8880.

**TRADITIONAL MEDICAL LABORATORY SCIENCE**
The traditional baccalaureate degree program in medical laboratory science is an entry-level program for students who want to become certified as a medical laboratory scientist or molecular biologist. Upon completion of the two-year program, students receive a bachelor of science and are eligible to apply to take national certification examinations to become certified as a medical laboratory scientist or molecular biologist.

**PROGRAM ADMISSION REQUIREMENTS**
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the medical laboratory science program must:

1. Have completed a minimum of 60 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Complete a total of 12 semester hours in required science courses before the application is submitted;
3. Have an overall cumulative grade point average of 2.50 on a 4.00 scale; and
4. Successfully complete (a grade of C or better) the following minimum prerequisite requirements:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Social or Behavioral Science¹</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Humanities and Fine Arts²</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Microbiology with Lab</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Biological Sciences³</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Electives⁴</td>
<td></td>
<td>12</td>
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<tr>
<td><strong>Total Prerequisites</strong></td>
<td></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

¹Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.
²Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.
³Biological Sciences include courses such as general biology, cell biology, anatomy and physiology, genetics, embryology and zoology. Science survey courses and science courses designed for non-majors are not acceptable for transfer credit.
⁴Electives should be selected from a broad range of academic courses which may include anatomy and physiology, cell biology, genetics, embryology, calculus, management or computer applications.

**PROGRAM APPLICATION DEADLINE**
All application documents and the application fees must be received by the Office of Student Records and Registrar by February 1 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

**EXPENSES**
In addition to tuition, fees and health insurance, students should be prepared to spend approximately $800 per year for textbooks, instrumentation, supplies and uniforms. Online students should be prepared to pay a distance education fee of $150 each semester.

**DEGREE AND CERTIFICATION**
Candidates for the medical laboratory science degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Due to the variability of available clinical sites, completion of the required curriculum may be extended beyond the minimum of 24 months. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Medical Laboratory Science from the University of Mississippi and are eligible to apply to take national certification examinations to become certified as a medical laboratory scientist or molecular biologist.
## PROFESSIONAL COURSE OF STUDY

### JUNIOR YEAR

#### Fall
- MLS 311 Basic and Clinical Immunology: 3 Semester Hours
- MLS 313 Clinical Bacteriology: 3
- MLS 314 Essentials of Clinical Chemistry: 3
- MLS 315 Phlebotomy: 2
- MLS 327 Laboratory Operations: 2

#### Semester Hours: 13

#### Spring
- MLS 312 Essentials of Hematology: 3
- MLS 324 Clinical Chemistry: 3
- MLS 325 Immunohematology: 3
- MLS 332 Diagnostic Hemostasis: 1
- MLS 340 General Pathology: 2

#### Semester Hours: 12

### SENIOR YEAR

#### Summer
- MLS 322 Clinical Hematology: 3
- MLS 323 Mycology, Parasitology and Virology: 3
- MLS 405 Introduction to Molecular Diagnostics: 3
- MLS 430 Research Methods: 3

#### Semester Hours: 12

#### Fall
- MLS 310 Body Fluid Analysis: 3
- MLS 326 Clinical Simulation: 3
- MLS 413 Diagnostic Microbiology: 3
- MLS 416 Research Design and Statistics: 3
- MLS 417 Principles of Management and Education in CLS: 1
- MLS 429 Clinical Correlations: 2

#### Semester Hours: 15

#### Spring
- MLS 422 Hematology Practicum: 3
- MLS 423 Clinical Microbiology Practicum: 3
- MLS 424 Clinical Chemistry Practicum: 3
- MLS 425 Immunohematology Practicum: 3

#### Semester Hours: 12

### Total Required Hours: 64

## PROGRESSION MEDICAL LABORATORY SCIENCE

The progression program is designed to allow a Clinical Laboratory Technician/Medical Laboratory Technician (CLT/MLT) to receive credit for previous professional educational experiences and to earn a baccalaureate degree in clinical laboratory sciences from the University of Mississippi Medical Center. The program, offered across five semesters, is designed for, but not limited to, part-time, non-traditional students. Online coursework is the method of content delivery.

### PROGRAM ADMISSION REQUIREMENTS

In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the progression medical laboratory science program must:

1. Hold certification as a MLT(ASCP);
2. Have completed a minimum of 60 semester hours of academic credit from a regionally accredited institution of higher learning;
3. Currently be practicing in a clinical laboratory as a generalist in clinical laboratory science;
4. Have a minimum GPA of 2.50 on a 4.00 scale; and
5. Successfully complete (a grade of “C” or better) the following minimum prerequisite requirements:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>General Chemistry with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Social or Behavioral Science(^1)</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

\(^1\) Course equivalents can be taken in any discipline.

---

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
Humanities and Fine Arts\(^2\) & 3 & 9 \\
Microbiology with Lab & 1 & 4 \\
Biological Sciences\(^3\) & 3 & 12 \\
Electives\(^4\) & & 12 \\
**Total Prerequisites** & & 60 \\
\(^1\)Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology. \\
\(^2\)Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre. \\
\(^3\)Biological Sciences include courses such as general biology, cell biology, anatomy and physiology, genetics, embryology and zoology. Science survey courses and science courses designed for non-majors are not acceptable for transfer credit. \\
\(^4\)Electives should be selected from a broad range of academic courses which may include anatomy and physiology, cell biology, genetics, embryology, calculus, management or computer applications.

**PROGRAM APPLICATION DEADLINE**

All application documents and the application fees must be received by the Office of Student Records and Registrar by February 1 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

**PROFESSIONAL COURSE OF STUDY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLS 310 Body Fluid Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MLS 311 Basic and Clinical Immunology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 327 Laboratory Operations</td>
<td>2</td>
</tr>
<tr>
<td>MLS 405 Introduction to Molecular Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td>MLS 417 Principles of Management and Education in CLS</td>
<td>1</td>
</tr>
<tr>
<td>MLS 429 Clinical Correlations</td>
<td>2</td>
</tr>
<tr>
<td>MLS 430 Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>MLS 432 Advanced Hematology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 433 Advanced Clinical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 434 Advanced Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MLS 435 Advanced Immunohematology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 436 Advanced Clinical Simulation</td>
<td>2</td>
</tr>
<tr>
<td>MLS 445 Clinical Rotation(^*)</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

\(^*\)Upon the successful completion of MLS 445, students will be awarded an additional 29 semester hours of transfer elective credit based on required coursework completed in the associate degree program that enables them to sit for and earn their professional credential.

**COURSE DESCRIPTIONS**

**MLS 310. Body Fluid Analysis.** A study of the qualitative and quantitative changes in the renal system based on anatomical and physiological alteration. Traditional Lecture/Lab (3 credit hours)

**MLS 311. Basic and Clinical Immunology.** A study of the principles of in vivo and in vitro immunological responses and immunologic testing, theory, and practice in relation to disease in man. Traditional Lecture/Lab (3 credit hours)

**MLS 312. Essentials of Hematology.** A study of blood and blood forming organs and basic diagnostic procedures. Traditional Lecture/Lab (3 credit hours)

**MLS 313. Clinical Bacteriology.** A study of pathological bacteria with an emphasis on techniques of isolation and identification. Traditional Lecture/Lab (3 credit hours)

**MLS 314. Essentials of Clinical Chemistry.** A study of biological compounds and elements found in body fluids. Emphasis is placed on methods of determination and clinical interpretation relating to pathological states in man. Traditional Lecture/Lab (3 credit hours)

**MLS 315. Phlebotomy.** A study of theory, practical application, technical performance, and evaluation of procedures used in collecting, handling, and processing blood specimens. Traditional Lecture (2 credit hours)

**MLS 322. Clinical Hematology.** A study of blood cells and their abnormalities with emphasis on disease processes. Prerequisite: MLS 312 Traditional Lecture/Lab (3 credit hours)

**MLS 323. Mycology, Parasitology, and Virology.** A study of pathological microorganisms with an emphasis on techniques of isolation and identification of fungi and viruses, medically significant protozoan and helminth parasites and their vectors, and various culturing techniques. Prerequisite: MLS 313 Traditional Lecture/Lab (3 credit hours)

**MLS 324. Clinical Chemistry.** A study of biological compounds and elements found in body fluids. Emphasis is placed on methods of determination and clinical interpretation relating to pathological states in man. Prerequisite: MLS 314 Traditional Lecture/Lab (3 credit hours)

**MLS 325. Immunohematology.** A study of principles, techniques, and applications of blood transfusion practices. Traditional Lecture/Lab (3 credit hours)

**MLS 326. Clinical Simulation.** A capstone course of medical laboratory science focusing on clinical diagnosis. Traditional Lecture (3 credit hours)

**MLS 327. Laboratory Operations.** A study of laboratory math, basic statistics, and quality assurance programs in the clinical laboratory. Traditional Lecture (2 credit hours)
MLS 332. Diagnostic Hemostatis. A study of the blood clotting system in normal and pathological states. Emphasis is placed on the correlation of test results with disease and therapies. Traditional Laboratory (1 credit hours)

MLS 340. General Pathology. A study of the etiology and symptomatology of the general pathological conditions affecting the body. Traditional Lecture (2 credit hours)

MLS 405. Introduction to Molecular Diagnostics. An introductory course in molecular terminology, the basic anatomy of a gene, the components of DNA and RNA, and the role of DNA and RNA in a cell. Principles of basic molecular techniques used in research and clinical laboratories will be introduced. Traditional Lecture (3 credit hours)

MLS 413. Diagnostic Microbiology. A study of clinical specimens with regard to pathogenic organisms and diagnosis in organ systems. Traditional Lecture/Lab (3 credit hours)

MLS 416. Research Design and Statistics. A study of basic topics of research design and statistics. Special focus on critical review and techniques of applied research. Traditional Lecture (3 credit hours)

MLS 417. Principles of Management & Education in. An introduction to the principles of management and education as applied to the profession of medical laboratory science. Traditional Lecture (1 credit hours)

MLS 422. Hematology Practicum. Clinical education practicum in affiliated laboratories. Prerequisite: MLS 322 Traditional Clinical Rotation (3 credit hours)

MLS 423. Clinical Microbiology Practicum. Clinical education practicum in affiliated laboratories. Prerequisite MLS 323 Traditional Clinical Rotation (3 credit hours)

MLS 424. Clinical Chemistry Practicum. Clinical education practicum in affiliated laboratories. Prerequisite MLS 324 Traditional Clinical Rotation (3 credit hours)

MLS 425. Immunohematology Practicum. Clinical education practicum in affiliated laboratories. Prerequisite MLS 325 Traditional Clinical Rotation (3 credit hours)

MLS 429. Clinical Correlations. Student presentations of case studies and new laboratory techniques to aid in clinical diagnosis. Traditional Lecture (2 credit hours)

MLS 430. Research Methods. An in-depth study in analyzing and evaluating the applications involved in research issues through literature reviews culminating in writing a research report. Traditional Lecture (3 credit hours)

MLS 432. Advanced Hematology. A study of the basic diagnostic procedures related to blood and blood forming organs combined with the study of blood cell abnormalities and disease processes. Online, Internet, or Web-based Lecture (3 credit hours)

MLS 433. Advanced Clinical Microbiology. A study of proper techniques for isolation and identification of pathological bacteria combined with fungal, viral, protozoan, and parasitic identification. Online, Internet, or Web-based Lecture (3 credit hours)

MLS 434. Advanced Clinical Chemistry. A study of biological compounds and elements located in body fluids with an emphasis on isolation and identification techniques. Online, Internet, or Web-based Lecture (3 credit hours)

MLS 435. Advanced Immunohematology. A study of proper techniques, principles, and applications for blood transfusion practices. Online, Internet, or Web-based Lecture (3 credit hours)

MLS 436. Advanced Clinical Seminar. A cumulative review of the major MLS subject areas: Chemistry, Urinalysis, Microbiology, Immunohematology, Hematology, Coagulation, Virology, Mycology, Parasitology, and Laboratory Operations, with an emphasis on certification preparation. Online, Internet, or Web-based Lecture (2 credit hours)

MLS 445. Clinical Rotation. MLS progression clinical education practicum in affiliated laboratories Online, Internet, or Web-based Clinical Rotation (4 credit hours)

**CLINICAL FACILITIES**

Clinical educational experiences in medical laboratory science are provided in conjunction with the following health care facilities:

- Baptist Memorial Hospital-DeSoto - Southaven
- Biloxi Regional Medical Center – Biloxi
- Central Mississippi Medical Center - Jackson
- Crossgates River Oaks Hospital - Brandon
- Delta Regional Medical Center - Greenville
- Magnolia Regional Health System - Brandon
- River Region Health System - Vicksburg
- Singing River Hospital – Pascagoula
- Southcentral Regional Medical Center – Laurel
- Southwest Mississippi Medical Center – McComb
- University of Mississippi Medical Center - Grenada
- University of Mississippi Medical Center (University Hospital and Health System) - Jackson
NUCLEAR MEDICINE TECHNOLOGY (MS)
Kristi Moore, PhD, RT (R) (CT) ARRT, Radiologic Sciences Department Chair
Sherry J. West, DHA, RT (R) (N) ARRT, CNMT, Program Director and Clinical Coordinator
Anson L. Thaggard, MD, Medical Advisor

FACULTY
Associate Professor:
Kristi Moore, PhD, RT (R) (CT) ARRT
Mark R. Gray, PhD, RT (R) ARRT

Assistant Professors:
Angela Burrell, MSN, RN
Mike Ketchum, DHA, RT (R) ARRT
Sherry J. West, DHA, RT (R) (N) ARRT, CNMT
Seena Edgerton, DHA, RT (R) (M) ARRT

Instructors:
Lee Brown, BS, RT (R) (N) ARRT, CNMT
Michael J. Smith, MBA
Asher Street, MS, RT (R) (MR) ARRT
Brian Carter, PharmD, ANP

ABOUT THE PROFESSION
Nuclear medicine technology is a multidisciplinary paramedical field concerned with the use of radioactive materials for the diagnosis of various pathological disease states and for the treatment of specialized disorders. The nuclear medicine technologist (NMT) is responsible for radiation safety, quality control, preparing and administering radiopharmaceuticals, performing imaging procedures, collecting and preparing biological specimens, performing special laboratory procedures, and preparing data for interpretation by a physician. The ability to produce functional images and quantify physiologic processes at a molecular level distinguishes nuclear medicine technology from other imaging modalities such as radiography, sonography and magnetic resonance imaging (MRI).
Nuclear medicine is one of the fastest growing allied health professions due to the development of new radiopharmaceuticals for diagnostic and therapeutic purposes as well as promising research and development of cancer-detecting agents and imaging technology such as Positron Emission Tomography-Computed Tomography (PET/CT). Career opportunities are exceptional, ranging from positions as staff technologists to supervisory posts. Other positions are available in specialty areas as research technologists, PET/CT technologists and educators.

ACCREDITATION STATUS
The nuclear medicine technology program is accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT), 2000 W. Danforth Rd., Ste. 130 #203, Edmond, OK 73003. JRCNMT’s phone number is (405) 285-0546.

PROGRAM ADMISSION REQUIREMENTS
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the Master of Science in Nuclear Medicine Technology program must:
1. Hold current ARRT (R) registration or be registry eligible;
2. Have earned a Bachelor of Science degree from a regionally accredited institution of higher learning;
3. Have successfully completed (a grade of C or better) Anatomy & Physiology with Lab (2 courses), General Chemistry with Lab (1 course), and General Physics (1 course),
4. Have a minimum overall cumulative grade point average of 3.0 on 4.00 scale;
5. Submit an official GRE report that includes verbal, quantitative, and analytical writing scores;
6. Provide three (3) letters of recommendation:
   • One (1) from current or past Radiologic Sciences Program Director
   • One (1) from current Radiologic Sciences Clinical Coordinator, if student, or Supervisor, if employed
   • One (1) from a member of the community;
7. Provide documentation of a minimum of 8 hours of observation in a nuclear medicine department;
8. Hold current CPR certification at the time of registration; and
9. Complete an interview

PROGRAM APPLICATION
All application documents and the application fees must be received by the Office of Student Records and Registrar by April 1 for summer admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

CERTIFICATION
Students who satisfactorily complete all the program requirements will be awarded the Master of Science in Nuclear Medicine Technology from the University of Mississippi and will be eligible to take the examinations for certifications offered by the American Registry of Radiologic Technologists (ARRT) and the Nuclear Medicine Technologist Certification Board (NMTCB). Candidates for certification must have an overall grade point average (GPA) in University of Mississippi Medical Center coursework of 3.0 or higher on a 4.0 scale. Most states require licensure in order to practice; however, state licenses are usually based on the results of the ARRT and NMTCB certification examinations. Be advised that a felony conviction may affect a graduate’s ability to sit for the ARRT and NMTCB certification examinations or attain state licensure.
## PROFESSIONAL COURSE OF STUDY

**Course** | **Semester Hours**
---|---
NMT 601 Nuclear Medicine Foundations | 3
NMT 606 Nuclear Physics and Radiobiology | 2
NMT 610 Nuclear Medicine Technology Principles | 3
NMT 612 Applied Nuclear Medicine Imaging I | 3
NMT 624 Applied Nuclear Medicine Imaging II | 4
NMT 650 Clinical Practicum I | 4
NMT 651 Clinical Practicum II | 4
NMT 652 Clinical Practicum III | 4
NMT 660 Nuclear Medicine Seminar | 4
NMT 690 Nuclear Medicine Research Methods I | 3
NMT 699 Nuclear Medicine Research Methods II | 3

**Total Required Hours** | **36**

## COURSE DESCRIPTIONS

**NMT 601. Nuclear Medicine Foundations.** An introduction to nuclear medicine technology emphasizing patient care; principles of nuclear radiation and safety; instrumentation and quality control; and medical law and ethics specific to NMT. Nuclear medicine mathematic applications for radionuclide activity, volume, concentration, decay, and unit conversion formulas are introduced. Techniques and procedures for proper venipuncture in nuclear medicine procedures are presented in the laboratory setting. Medical terminology is presented and includes a study of word origins, structures, abbreviations, and symbols. Traditional Lecture/Lab (3 credit hours)

**NMT 606. Nuclear Physics & Radiobiology.** Presents qualitative and quantitative concepts of radiation physics and radiobiology pertaining to medical applications in nuclear medicine; atomic and nuclear structure, radioactive decay, properties of radiation; and photon interactions in matter. Additionally, the course examines physical, chemical, and biological mechanisms involved in radiation to living cells and their components. Traditional Lecture (2 credit hours)

**NMT 610. Nuclear Medicine Technology Principles.** A study of the fundamental concepts of radiopharmaceutical production and mechanisms of localization; theoretical and practical concepts of nuclear instrumentation and statistics; principles of in vivo and in vitro counting and imaging, and Gamma/SPECT/PET technology and image management and reconstruction techniques. Medical terminology of nuclear concepts and procedures is presented, including definitions, spelling, and pronunciation. Traditional Lecture (3 credit hours)

**NMT 612. Applied Nuclear Medicine Imaging I.** A study of anatomy, physiology, terminology, and pathology related to diagnostic nuclear medicine for the skeletal, gastrointestinal, respiratory, urinary, and endocrine systems. The course presents current uses of radiopharmaceuticals for organ visualization, function, and radiotherapy. Principles for determining diagnostic value of imaging results are presented in the clinical laboratory setting. Cross sectional anatomy is included. Traditional Lecture/Lab (3 credit hours)

**NMT 624. Applied Nuclear Medicine Imaging II.** A study of anatomy, physiology, terminology, and pathology related to diagnostic and therapeutic nuclear medicine for the central nervous system and nuclear oncology. The course provides comprehensive studies of immunology, nuclear cardiology, and related PET/CT. Principles for determining diagnostic value of imaging results are presented in the laboratory setting. Related cross sectional anatomy is included. Traditional Lecture/Lab (4 credit hours)

**NMT 650. Clinical Practicum I.** A supervised introduction to the clinical environment providing experience with in vivo and in vitro procedures; instrumentation quality control; radiopharmacy; applied radiation safety procedures; and clinical imaging. Traditional Clinical Rotation (3 credit hours)

**NMT 651. NMT Clinical Practicum II.** A continuation of NM 650. Directed intermediate level clinical practice providing practical clinical experience with in vivo and in vitro procedures; instrumentation quality control; radiopharmacy; applied radiation safety procedures; and clinical imaging. Traditional Clinical Rotation (4 credit hours)

**NMT 652. NMT Clinical Practicum III.** A continuation of NM 651. Directed advanced level clinical practice providing clinical experience with in vivo and in vitro procedures and therapies; PET/CT imaging and image evaluation; instrumentation quality control; radiopharmacy; applied radiation safety procedures; and department management. Traditional Clinical Rotation (4 credit hours)

**NMT 660. Nuclear Medicine Seminar.** A review of current literature and research applied to nuclear medicine case studies, along with review of didactic and clinical NMT providing an overview of topics relating to professional certification. Factors affecting health policy and healthcare administration are presented. Traditional Lecture (4 credit hours)

**NMT 690. Nuclear Medicine Research Methods I.** Reinforces the conceptual basis for interpreting professional literature and making evidence-based practice decisions. Both qualitative and quantitative research designs are explored in-depth, and students are instructed in the research process with emphasis on the literature review. Student groups complete a literature review on a relevant topic under the direction of a faculty advisor. (Lecture) (3 semester hours)

**NMT 699. Nuclear Medicine Research Methods II.** A continuation of the research process introduced in NMT 690. Didactic emphasis is on methodology, statistical analyses and the compilation and dissemination of a final research project. Student groups complete the details unique to their research project under the direction of a faculty advisor. (Lecture) (3 semester hours)

## CLINICAL FACILITIES

Clinical educational experiences in nuclear medicine technology are provided in conjunction with the following health care facilities:

- G. V. “Sonny” Montgomery VA Medical Center - Jackson
- Cardinal Health Nuclear Pharmacy - Jackson
- Central Mississippi Medical Center (Merit Health) - Jackson
OCCUPATIONAL THERAPY (MOT)
Christy M. Morgan, PhD, OTR/L, Department Chair and Program Director
Carol Tubbs, MA, OTR/L, Associate Department Chair

FACULTY
Professors:
Peter W. Giroux, PhD, OTR/L
Lorraine Street, PhD, OTR/L, BCP

Associate Professors:
Robin Davis, MS, OTR/L
Christy M. Morgan, PhD, OTR/L
Carol Tubbs, MA, OTR/L

Tonia B. Taylor, PhD, COTA/L

Assistant Professors:
Kayla C. Abraham, MA, OTR/L
Robin Parish, MA, OTR/L, CHT
Penny T. Rogers, DHA, OTR/L

Megan Ladner, MS, OTR/L

Instructor:
Kelly C. Crawford, MSM, OTR/L

ABOUT THE PROFESSION
The occupational therapist is a health care professional that provides intervention to individuals across the life span whose lives have been impacted by physical, psychological or developmental problems. The therapist designs activities for these individuals to maximize occupational performance in work, self-care, leisure and other daily occupations. The therapist must have the ability to effectively interact with other people and enjoy creative problem-solving. Employment opportunities are found in hospitals, rehabilitation centers, outpatient facilities, mental health programs, private practice, long-term care facilities, home health agencies, industry and school settings.

ACCREDITATION STATUS
The occupational therapy program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE may be contacted by phone at (301) 652-2682 (AOTA).

PROGRAM ADMISSION REQUIREMENTS
The program consists of 36 months of didactic, laboratory, demonstration and clinical course work; the program does not accept outside course work, work experience or experiential learning in place of any MOT curriculum course. Class size is limited, and acceptance into the program is on a competitive basis. Preference is given to Mississippi residents; out-of-state applicants will be considered only if there are positions available after all qualified Mississippi applicants are accepted. The program does not offer advanced placement or admission based on ability to benefit. In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the occupational therapy program must:

1. Have completed a minimum of 72 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Have a minimum overall cumulative grade point average of 3.00 on a 4.00 scale;
3. Provide evidence of 24 hours of observation in at least two occupational therapy clinical departments or practices within the calendar year preceding the application deadline;
4. Complete an interview with the Occupational Therapy Admissions Committee;
5. Have written confirmation of completion of the Hepatitis B vaccination series or that the Hepatitis B vaccination series has been started at the time of registration; and
6. Successfully complete (a grade of “C” or better) the following prerequisite courses:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Speech</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Statistics</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Social or Behavioral Science²</td>
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<td>6</td>
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<tr>
<td>General Psychology</td>
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<td>3</td>
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<tr>
<td>Child or Adolescent or Abnormal or Educational Psychology</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Human Growth and Development or Developmental Psychology</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humanities and Fine Arts¹</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Anatomy and Physiology with Lab⁴</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>General Biology I and II or Zoology I and II or Higher Level Biology Courses with Lab⁵</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
General Chemistry with Lab\textsuperscript{1} & 1 & 4 \\
Physics with Lab\textsuperscript{2} & 1 & 4 \\
Electives\textsuperscript{3} & 3 & 9 \\
\textbf{Total Prerequisites} & & 72 \\
\textsuperscript{1} Statistics may include courses such as Elementary, Behavioral, Business or Introductory. Survey courses are not acceptable. \\
\textsuperscript{2} Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology. \\
\textsuperscript{3} Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theater. \\
\textsuperscript{4} One course of pure human anatomy with lab AND one course of pure physiology with lab is equivalent to two anatomy and physiology with lab courses. \\
\textsuperscript{5} Science survey courses designed for non-science majors are not acceptable for a required course. \\
\textsuperscript{6} These are not required courses but might be helpful electives: medical terminology, trigonometry, additional psychology courses and/or other science courses.

**PROGRAM APPLICATION DEADLINE**

All application documents (including completed observation forms) and the application fees must be received by the Office of Student Records and Registrar by January 15 for summer admission. Students are strongly encouraged to complete the application submission well before the deadline date whenever possible. General application information may be found in the General Application Procedures section of the School of Health Related Professions.

**EXPENSES**

In addition to tuition, fees, and health insurance, students should be prepared to spend $2,000 to $3,000 per year for necessary books, supplies and uniforms. Students are also required to complete two 12-week full-time clinical rotations which are typically not within commuting distance from the Jackson area, and at least one of these placements will be out of Mississippi. Therefore, students should be prepared to provide for their own transportation, living and other incidental expenses during these clinical affiliation experiences.

**DEGREE AND CERTIFICATION**

Candidates for the occupational therapy degree must have completed the prescribed curriculum, encompassing 36 continuous months (3 years) of study, with an overall cumulative grade point average of 3.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Completion of the Master of Occupational Therapy program in its entirety is required for eligibility for the national certification examination. Graduates of the program are eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT certification examination. Be advised that a felony conviction may affect a graduate’s ability to sit for the NBCOT certification examination or attain state licensure. Note: Due to variability of available clinical sites, completion of the required curriculum may be extended beyond the minimum of 36 months. All OT students must complete Level II Fieldwork within 24 months following completion of didactic course work.

**PROFESSIONAL COURSE OF STUDY***

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Summer</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>OT 310 Introduction to Occupational Therapy in Health Care Delivery</td>
<td>3</td>
</tr>
<tr>
<td>OT 311 Group Process</td>
<td>2</td>
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<tr>
<td>OT 315 Medical Conditions I</td>
<td>2</td>
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<tr>
<td>OT 318 Introduction to Research</td>
<td>2</td>
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<tr>
<td><strong>Total</strong></td>
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<th>Fall</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>OT 308 Structural Analysis of Human Motion</td>
<td>3</td>
</tr>
<tr>
<td>OT 309 Structural Analysis of Human Motion Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>OT 312 Conceptual Framework for Therapeutic Occupation I</td>
<td>3</td>
</tr>
<tr>
<td>OT 323 Occupational Therapy: Pediatrics/Early Childhood</td>
<td>3</td>
</tr>
<tr>
<td>OT 337 Pediatric Fieldwork I</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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<table>
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<th>Spring</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>OT 313 Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>OT 316 Medical Conditions II</td>
<td>2</td>
</tr>
<tr>
<td>OT 326 Occupational Therapy: Middle Childhood/Adolescent</td>
<td>4</td>
</tr>
<tr>
<td>OT 328 Neuroscience for Occupational Therapy</td>
<td>4</td>
</tr>
<tr>
<td>OT 332 Conceptual Framework for Therapeutic Occupation II</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16</td>
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</table>

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Summer</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>OT 317 Medical Conditions III</td>
<td>3</td>
</tr>
<tr>
<td>OT 333 Occupational Therapy: Adult/Older Adult</td>
<td>4</td>
</tr>
<tr>
<td>OT 441 Analysis of Legal and Ethical Issues in Occupational Therapy</td>
<td>3</td>
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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

COURSE DESCRIPTIONS

OT 308. Structural Analysis of Human Motion. In-depth knowledge of the gross anatomical structure and functions of the human body. Emphasis is placed on the study of the musculoskeletal system and muscle innervations with particular attention to the specific muscle functions and consequences of their loss related to occupational performance. Traditional Lecture (3 credit hours)

OT 309. Structural Analysis of Human Motion Lab. This is the dissection laboratory to complement OT 308 Structural Analysis of Human Motion. Traditional Laboratory (3 credit hours)

OT 310. Intro to OT in Health Care Delivery. Basic tenets of occupational therapy are introduced. Topics include history and philosophy of the profession, theories/frames of reference, and professional behavior, terminology, and documents. The role of the occupational therapist in the context of various service delivery systems will be explored, with emphasis on the U.S. healthcare system. Traditional Lecture (3 credit hours)

OT 311. Group Process. The content includes analysis of individual and group interaction, communication processes, group dynamics, and opportunities for leadership skill development. Traditional Lecture/Lab (2 credit hours)

OT 312. Concept Frwk Therapeutic Occupation I. Provides the student with knowledge of the Occupational Therapy Practice Framework: Domain and Process. The application of the framework is emphasized through analysis and adaptation of activities to enhance occupational performance across the life span. Traditional Lecture/Lab (3 credit hours)

OT 313. Kinesiology. Integrates principles of biomechanics and knowledge of anatomy as it applies to human movement and the impact of impairment on occupational performance. Content also includes an introduction to procedures for evaluation of muscular and articular structures and other application labs. Traditional Lecture/Lab (3 credit hours)

OT 315. Medical Conditions I. Introduction of conditions commonly seen in pediatric and adolescent occupational therapy. Emphasis is placed on etiology, symptoms, medical intervention, and direct implications for occupational performance. Traditional Lecture (2 credit hours)

OT 316. Medical Conditions II. Introduces medical conditions commonly seen in adult occupational therapy. Emphasis placed on etiology, symptoms, medical intervention, and implication for occupational performance. Traditional Lecture (2 credit hours)

OT 317. Medical Conditions III. A continuation of OT 316. It introduces additional medical conditions commonly seen in adult occupational therapy. Emphasis is placed on etiology, symptoms, medical intervention and implication for occupational performance. Traditional Lecture (3 credit hours)
OT 301. Introduction to Research. Introduces concepts essential for evidenced-based practice in occupational therapy. The process of locating, reviewing, and critiquing biomedical research will be examined. Principles related to research design and statistical methods will be introduced. Traditional Lecture (2 credit hours)

OT 323. OT: Pediatrics/Early Childhood. Identifies the physical, psychological, social, and cultural forces which affect children's occupations within the environment from birth through early childhood. Occupational therapy theories/frames of reference and service delivery for this age group are examined. Traditional Lecture/Lab (3 credit hours)

OT 324. Psychiatric Medical Conditions. Introduces diagnostic categories of mental disorders as well as the medical, psychological, and sociological factors that influence mental health. Emphasis is placed on etiology, symptoms, prognosis and general intervention. Traditional Lecture (3 credit hours)

OT 326. OT: Middle Child/Adolescent. Identifies the physical, psychological, social, and cultural forces which affect children's occupations within the environment from middle childhood through adolescence. Occupational therapy theories/frames of reference and service delivery for this age group are examined. Clinical reasoning in assessment and treatment for adults is introduced. Traditional Lecture/Lab (4 credit hours)

OT 332. Concept Frmk Therapeutic Occupation II. An in-depth study of the structure and function of the central nervous system. Motor and sensory dysfunctions are related to localized disruptions of nervous system activities. Traditional Lecture (4 credit hours)

OT 337. Pediatric Fieldwork I. Students apply didactic learning to the practice of occupational therapy in the pediatric population. The emphasis is on clinical problem-solving in assessment, treatment, outcomes, and written documentation. Combination lecture and clinical course. Traditional Clinical Rotation (2 credit hours)

OT 341. Asst. Tech & Environmental Adaptations. In-depth study of assistive technology as it impacts participation in occupations. Laboratory experiences focus on critical thinking skills related to environmental adaptation and the use of assistive technology to enhance occupational performance across all contexts. Traditional Lecture/Lab (3 credit hours)

OT 343. Psychosocial Dysfunction. Concentrates on the entry level OT skills required for mental health intervention across practice settings. The student is instructed in theories/frames of reference, evaluation, and treatment techniques, and discharge planning for individuals with psychosocial problems. Combination lecture and clinical course. Traditional Lecture/Lab (3 credit hours)

OT 345. Psychosocial Fieldwork I. Students apply didactic learning to the practice of occupational therapy in psychosocial dysfunction. The emphasis is on clinical problem-solving in assessment, treatment, outcomes and written documentation. Combination lecture and clinical course. Traditional Clinical Rotation (3 credit hours)

OT 411. Analysis of Legal & Ethical Issues in OT. Knowledge and application of law and ethics related to occupational therapy practice. Strategies for analyzing and resolving professional dilemmas in service delivery are introduced and applied. In addition, legal topics including liability issues, malpractice, and business and education law are presented. Traditional Lecture (3 credit hours)

OT 460. Research Methods I. Reinforces the conceptual basis for interpreting professional literature and making evidence-based practice decisions. Both qualitative and quantitative research designs are explored in depth, and students are instructed in the research process with emphasis on the literature review. Student groups complete a literature review on a relevant topic under the direction of a faculty advisor. Traditional Lecture (3 credit hours)

OT 490. Special Topics. With the consent of the department chair, a student may elect to take this course on a subject of interest in special areas of occupational therapy. The student must have the support of a faculty advisor for course administration. Credits will be assigned according to the scope of the subject and/or project completed. Traditional Independent Study (1-4 credit hours)

OT 500. Research Methods II. A continuation of the research process introduced in OT460. The didactic emphasis is on development of a research methodology and statistical analyses. Students groups complete the remainder of the research proposal under the direction of a faculty advisor. Traditional Lecture (3 credit hours)

OT 501. Research Methods III. A continuation course of OT500. Didactic emphasis is on the compilation and dissemination of a final research report. Students groups complete the details unique to their research project under the direction of a faculty advisor. Traditional Lecture (2 credit hours)

OT 510. Adv Therapeutic Modalities & Apps. Instruction and application opportunities for treatment approaches inclusive of all populations across the lifespan and diagnostic categories. Topics include specialized treatment techniques and in-depth presentation of
techniques introduced in earlier courses. Students examine and present a treatment topic and complete a longitudinal, case-based treatment plan. Traditional Lecture/Lab (3 credit hours)

**OT 515. Fieldwork II A.** Full-time, 12-week clinical experience in which students are responsible for providing services to clients/patients under the supervision of a qualified occupational therapy practitioner. The focus is on development of the skills necessary for entry level occupational therapy practice. Placements are selected to ensure exposure to a variety of settings and clients. Traditional Clinical Rotation (9 credit hours)

**OT 516. Management Practices & Prof Leadership.** This course exposes students to the day-to-day functions of an occupational therapist in administrative, managerial and leadership roles. Issues and resources related to professional development throughout the career are emphasized. Traditional Lecture (3 credit hours)

**OT 530. Advanced Clinical Reasoning.** Students apply different types of clinical reasoning to the occupational therapy process through lecture and case analysis. Professional development is also emphasized. Traditional Lecture (3 credit hours)

**OT 537. Fieldwork II B.** Full-time, 12-week clinical experience in which students are responsible for providing services to clients/patients under the supervision of a qualified occupational therapy practitioner. The focus is on development of the skills necessary for entry level occupational therapy practice. Placements are selected to ensure exposure to a variety of settings and clients. Traditional Clinical Rotation (9 credit hours)

**OT 541. Comprehensive Capstone.** A comprehensive review of the curriculum in preparation for the national board examination. Includes information on the process for national certification and state licensure for the occupational therapist. Public dissemination of findings from OT 501 research projects will be required. Traditional Lecture (3 credit hours)

**OT 542. Community Practice.** Students will gain an understanding and appreciation of the role of occupational therapy in home and community settings as well as evidence based practice, policy issues, and trends in models of service delivery. Topics include traditional and emerging practice in the realms of health promotion, prevention, evaluation, and intervention. Traditional Lecture/Lab (3 credit hours)

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**PHYSICAL THERAPY (DPT)**

Rebecca H. Pearson, PT, PhD, Department Chair and Program Director
Lisa Barnes, PT, DPT, PhD, Associate Department Chair

**FACULTY**

**Professors**

Felix Adah, PT, PhD
Min Huang, PT, PhD

Rebecca H. Pearson, PT, PhD
Paula L. Stubbs, PT, PhD, RRT

Kimberly Curbow Wilcox, PT, PhD, NCS

**Associate Professors:**

Lisa Barnes, PT, DPT, PhD
Joy Kuebler, PT, DPT

Lisa Latham, PT, DPT, EdD
Emily McVey, MD

Janet Slaughter, PT, DPT, PCS

**Assistant Professors:**

Sherry Colson, PT, DPT
Melanie Lauderdale, PT, DPT, NCS

Ryan McGlawn, PT, DPT, OCS
Kimberly Willis, PT, DPT

**Clinical Assistant Professor:**

Maureen Hardy, PT, MS, CHT

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**ABOUT THE PROFESSION**

The physical therapist is a health professional that examines, designs, implements and modifies therapeutic interventions for persons of all age groups in order to enhance or maintain endurance, muscle strength and mobility, and treat pain, movement dysfunction or disability due to disease, injury, loss of a body part or birth defect. The therapist helps the individual prevent injury and overcome movement dysfunction through the use of exercise, education, assistive devices and physical procedures. Additionally, the therapist considers psychological, sociological and economic factors in interactions with clients, patients and community groups, assesses living environments and recommends adaptations to eliminate architectural barriers.

As the need for qualified professional physical therapists exists wherever health care services are required, employment opportunities include hospitals, private practices, rehabilitation centers, home health agencies, industry, research centers, nursing homes, community centers, wellness centers, clinics and school settings. The physical therapy profession offers opportunities for advancement in the areas of education, clinical specialization, management, consultation and research. Practice settings, employment arrangements, occupational responsibilities and career opportunities depend upon the interests and skills of each practitioner.

**ACCREDITATION STATUS**

The physical therapy program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, VA 22314-1488. CAPTE’s phone number is (703) 706-3245.
PROGRAM ADMISSION REQUIREMENTS

In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the Doctor of Physical Therapy program must:

1. Provide evidence of observation in a minimum of two physical therapy clinical departments or practices for a total of 40 hours (Additional hours and sites are recommended. A maximum of 20 hours total can be applied to the observation requirement from hours earned during internship experiences. All observation hours must be completed in the current year of application and documentation forms must be received by the application deadline.);
2. Have a baccalaureate degree from a regionally accredited institution of higher learning;
3. Have a minimum overall grade point average of 3.00 on a 4.00 scale;
4. Have a minimum required course grade point average of 3.00 on a 4.00 scale;
5. Submit an official GRE report that includes verbal, quantitative, and analytical writing scores;
6. Submit a resume that includes (1) career objective; (2) educational history; (3) work history; (4) community service activities; and (5) honors and activities;
7. Be proficient in the use of computers for word processing, spreadsheet, library database searching and be able to perform Internet searches;
8. Have current first aid and CPR certification at the time of registration;
9. Have written confirmation of completion of the Hepatitis B vaccination series or that the Hepatitis B vaccination series has been started at the time of registration; and
10. Successfully complete (a grade of “C” or better) the prerequisite courses as follows:

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<tr>
<th>Prerequisite Courses*</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Statistics (mathematics, psychology or education)(^{3})</td>
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<td>3</td>
</tr>
<tr>
<td>Biology with Lab</td>
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<tr>
<td>Chemistry with Lab</td>
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<td>8</td>
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<tr>
<td>Physics with Lab</td>
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<td>6-8</td>
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<tr>
<td>Advanced Physical or Biological Science(^{2})</td>
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<td>3-5</td>
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<td><strong>Total Prerequisites</strong></td>
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\(^{*}\)Science survey courses designed for non-science majors are not acceptable for a required course. Normally required science courses must have been taken in the last 10 years. All physical or biological sciences listed at a particular college or university do not necessarily satisfy the prerequisite requirements; please consult with the physical therapy pre-academic advisor for clarification.

\(^{2}\)Must be taken at a senior college.

\(^{3}\)Must be 300 level or above and taken at a senior college. Associated labs, whether incorporated or offered separately, must also be completed. Student must have completed all specified prerequisites for each advanced science course taken.

PROGRAM APPLICATION DEADLINE

All application documents and the application fees must be received by the Office of Student Records and Registrar by November 1 for summer admission, while final fall transcripts must be received by the last Tuesday in January. General application information may be found in the General Application Procedures section of the School of Health Related Professions.

EXPENSES

In addition to tuition, fees, health insurance and professional insurance, students should be prepared to spend $3,000 to $4,000 per year for necessary books, supplies and uniforms. Students are required to spend part of the second fall semester, 8 weeks of the third summer semester and all of the spring semester of the third year in full-time clinical education experiences in Mississippi or other states. Although some clinical institutions may offer a small stipend or room and board, students should be prepared to provide their own transportation, living and other incidental expenses during these clinical education experiences. One long-term clinical education assignment will be at an out-of-state facility and a second assignment will be at an in-state facility outside the Jackson metro area. Students may be required to buy laptop computers and/or wireless handheld personal data assistance devices that will be compatible with the campus computer network.

DEGREE AND LICENSURE

Candidates for the physical therapy degree must have completed the prescribed curriculum with an overall cumulative grade point average of 3.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all course requirements, the student will be awarded the Doctor of Physical Therapy degree from the University of Mississippi. Due to the variability of available clinical sites, completion of the required curriculum may be extended beyond the minimum of 36 months. Students are recommended by the faculty for graduation. The graduate will be eligible to take the national physical therapy licensure examination.

PROFESSIONAL COURSE OF STUDY

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<tr>
<th>FIRST YEAR</th>
<th>Semester Hours</th>
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<tr>
<td>Summer</td>
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<tr>
<td>PT 600 Anatomical Basis of Human Movement in Physical Therapy Practice</td>
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<tr>
<td>PT 610 Introduction to Physical Therapy Practice</td>
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<td>Fall</td>
<td>Semester Hours</td>
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<tr>
<td>PT 601 Physiologic Basis of Physical Therapy I</td>
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<tr>
<td>PT 602 Human Kinesiology and Biomechanics I</td>
<td>3</td>
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<tr>
<td>PT 611 Systems Review and Clinical Dysfunction</td>
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<td>PT 620 Acute Care in Physical Therapy I</td>
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<tr>
<td>PT 630 Principles of Physical Therapy Practice I</td>
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<th>Spring</th>
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<tr>
<td>PT 603 Physiologic Basis of Physical Therapy II</td>
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<tr>
<td>PT 621 Clinical Tests and Measures in Physical Therapy Practice</td>
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<tr>
<td>PT 631 Assessment and Management of Musculoskeletal Problems I</td>
<td>4</td>
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<tr>
<td>PT 632 Principles of Physical Therapy Practice II</td>
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<td>PT 660 Evidence-Based Physical Therapy Practice I</td>
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**SECOND YEAR**

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<th>Summer</th>
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<tr>
<td>PT 604 Human Kinesiology and Biomechanics II</td>
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<tr>
<td>PT 605 Pharmacology in Physical Therapy</td>
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<td>PT 633 Acute Care in Physical Therapy II</td>
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<tr>
<td>PT 640 Legal and Ethical Issues in Healthcare</td>
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<tr>
<td>PT 670 Specialty Practice in Physical Therapy Elective</td>
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<tr>
<td>PT 617 Issues in Community Health and Prevention and Wellness</td>
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<td>PT 634 Assessment and Management of Musculoskeletal Problems II</td>
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<td>PT 641 Organizational Systems in Healthcare Delivery</td>
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<td>PT 650 Clinical Experience I</td>
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<tr>
<td>PT 662 Journal Seminar I</td>
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<tr>
<td>PT 606 Neurosciences in Physical Therapy Practice</td>
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<td>PT 612 Developmental Basis of Functional Movement across the Lifespan</td>
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<td>PT 635 Physical Therapy Management of Integumentary Problems</td>
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<td>PT 636 Neurological Aspects of Physical Therapy Practice I</td>
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<tr>
<td>PT 661 Evidence-Based Physical Therapy Practice II</td>
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<td>PT 663 Journal Seminar II</td>
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<td>PT 670 Specialty Practice in Physical Therapy Elective</td>
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**THIRD YEAR**

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<tr>
<td>PT 613 Applied Clinical Decision-Making</td>
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<td>PT 651 Clinical Experience II</td>
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<tr>
<td>PT 616 Comprehensive Capstone</td>
<td>3</td>
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<tr>
<td>PT 637 Neurological Aspects of Physical Therapy Practice II</td>
<td>4</td>
</tr>
<tr>
<td>PT 638 Neurological Aspects of Physical Therapy Practice III</td>
<td>4</td>
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<tr>
<td>PT 642 Resource Management in Physical Therapy</td>
<td>2</td>
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<tr>
<td>PT 670 Specialty Practice in Physical Therapy Elective</td>
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<td><strong>Total</strong></td>
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<tr>
<th>Spring</th>
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<tbody>
<tr>
<td>PT 652 Clinical Experience III</td>
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<tr>
<td>PT 653 Clinical Experience IV</td>
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**Total Required Hours** 120

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<th>Elective Option</th>
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<tbody>
<tr>
<td>PT 671 Independent Study in Physical Therapy Practice</td>
</tr>
<tr>
<td>PT 672 Special Topics in Physical Therapy Practice</td>
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**COURSE DESCRIPTIONS**

**PT 600. Anatomical Basis of Human Movmt-PT Prac.** An integrated approach to regional study of the gross anatomical structure and functions of the human body with emphasis on the study of the musculoskeletal, nervous, cardiovascular, and pulmonary systems. Traditional Lecture/Lab (7 credit hours)
Presentation of various management techniques, such as exercise, flexibility, and mobilization, which are used in the management of these problems. Prerequisites: PT 602 and PT 611 Traditional Lecture (4 credit hours)

PT 602. Human Kinesiology and Biomechanics I. A study of normal and abnormal human movement with consideration of static and dynamic structural relationships. Emphasis is on the clinical application of kinesiologic principles and relationships. Prerequisite: PT 600 Traditional Lecture (3 credit hours)

PT 603. Physiologic Basis of Physical Therapy II. An examination of the client’s response to physical therapy intervention in health and disease. Emphasis is on the physiologic responses and adaptations of the cardiopulmonary and musculoskeletal systems and the energy systems utilized during activity. Prerequisite: PT 601 Traditional Lecture (3 credit hours)

PT 604. Human Kinesiology and Biomechanics II. A study of human structure and movement in the areas of gait and posture. Both normal and abnormal gait and posture will be addressed in lecture and laboratory settings. Basic introductions and principles in the areas of motor learning and motor control will be presented. Prerequisite: PT 602 and PT 621 Traditional Lecture/Lab (3 credit hours)

PT 605. Pharmacology in Physical Therapy. General concepts of pharmacokinetics and pharmacodynamics. Includes a survey of the classes of pharmacological agents used in the treatment of diseases and disorders of the cardiovascular, pulmonary, musculoskeletal, integumentary, and neuromuscular systems. Examination of clinical responses to drug interactions and side effects in the physical therapy patient population and presentation of medical diagnostic measures used to assess diseases and disorders of these systems. Prerequisite: PT 601. Traditional Lecture (2 credit hours)

PT 606. Neurosciences in Physical Therapy. Neurological basis of central nervous system function with emphasis on motor performance. Includes applications for cranial nerve, reflex, and sensory testing. Prerequisite: PT 611 Traditional Lecture (4 credit hours)

PT 610. Introduct to Physical Therapy Practice. Principles and conceptual bases of communication, education, cultural diversity, documentation in the healthcare record, psychosocial aspects of care and disability, and introduction to ethical practice in a variety of healthcare settings. Prerequisite: Admission Traditional Lecture (3 credit hours)

PT 611. Systems Review and Clinical Dysfunction. Principles and practices related to the systems review process of physical therapy examination. Clinical pathology of body systems, with emphasis on the influence of these pathologies on the role and practice of physical therapists. Prerequisite: PT 600 Traditional Lecture (4 credit hours)

PT 612. Develop Basis- Functional Mvmnt:Lifespan. Study of the sequential changes of human development, maturation, and aging from conception to death with emphasis on neuromuscular and musculoskeletal systems. Prerequisite: PT 604 Traditional Lecture (3 credit hours)

PT 613. Applied Clinical Decision Making. A synthesis of concepts learned during the preceding clinical experience, utilizing case study presentations, sharing of clinical in - services, and professional socialization. Requisite: Concurrent enrollment in PT 651; Prerequisites: PT 605 and PT 650 Traditional Lecture (3 credit hours)

PT 616. Comprehensive Capstone. A review and synthesis of the patient client management model with a focus on specific clinical disorders with an emphasis on clinical decision making based on clinical experiences. A secondary emphasis is on preparation for the National Physical Therapy Examination. Prerequisites: PT 613 and PT 651 Traditional Lecture (3 credit hours)

PT 617. Issues in Comm Health & Prev & Wellness. A synopsis of issues in community health, including epidemiological concepts, community education processes, and a survey of community health stakeholders, current programs, and agencies. The role of physical therapists in prevention and promotion of health is examined in relation to principles and practices for primary, secondary, and tertiary prevention. Prerequisites: PT 603, PT 610, PT 611, PT 640, PT 660 Traditional Lecture (3 credit hours)

PT 620. Acute Care in Physical Therapy I. Practice related to the role of the physical therapist in the acute care setting, including introduction to radiology, lab values, pulmonary function testing, cardiac monitoring, and equipment utilized for patients in this setting. Prerequisite: PT 600 Traditional Lecture/Lab (4 credit hours)

PT 621. Clinical Tests & Measures in PT Practice. Theory and application of patient examination skills including muscle performance testing, goniometry, sensory testing, functional assessment, functional capacity examination, assessment of home and work environments, and application of ergonomic principles. Incorporates documentation of patient examination and evaluation in the medical record. Prerequisites: PT 601, PT 602, PT 610, PT 611 Traditional Lecture/Lab (4 credit hours)

PT 630. Principles of Physical Therapy Pract I. Basic principles and procedures involved in transfers, bed mobility, patient positioning, draping, body mechanics, passive range of motion, vital signs assessment and gait training with assistive devices. Prerequisites: PT 600 and PT 610 Traditional Lecture/Lab (3 credit hours)

PT 631. Assessment & Mgt-Musculoskeletal Prob I. Specific assessment skills related to appendicular musculoskeletal problems. Presentation of various management techniques, such as exercise, flexibility, and mobilization, which are used in the management of these problems. Prerequisites: PT 602 and PT 611 Traditional Lecture/Lab (4 credit hours)

PT 632. Principles of Phys Ther Practice II. Physical, electrical, and mechanical modalities used in physical therapy treatment. Prerequisites: PT 601, PT 602, PT 610, PT 611 Traditional Lecture/Lab (3 credit hours)

PT 633. Acute Care in Physical Therapy II. Assessment and treatment of patients in the acute care setting with a variety of medical conditions. Emphasis on the equipment utilized as well as assessment parameters as related to the management of patients in acute care settings. Prerequisites: PT 603, PT 602, PT 620, PT 621 Traditional Lecture/Lab (3 credit hours)

PT 634. Assessment & Mgt-Musculoskeletal Prob II. Specific assessment skills related to axial and pelvic musculoskeletal problems. Presentation of various management techniques, such as exercise, flexibility, and mobilization, which are used in the management of these problems. Prerequisites: PT 604 and PT 631. Traditional Lecture/Lab (3 credit hours)

PT 635. Phys Therapy Mgt of Integumentary Prob. Explores patient-client management of the patient with integumentary disruption, including pressure ulcers, neuropathic and vascular wounds, burns, scar tissue, lymphedema, and amputation. Prerequisites: PT 604, PT 605, PT 632 Traditional Lecture/Lab (4 credit hours)
**PT 636. Neurological Aspects Phys Ther Pract I.** Basic principles of rehabilitation for the physically disabled individual. Emphasis is placed on comprehensive management of neuromuscular related conditions with focus on achieving individual functional potential through therapeutic intervention, equipment and orthotic evaluation, and patient education. Prerequisites: PT 604, PT 605, PT 606, and PT 621 Traditional Lecture/Lab (3 credit hours)

**PT 637. Neurological Aspects Phys Ther Pract II.** Introduction to current theories, clinical examination, evaluation, and management of neurological conditions with emphasis on the adult population. Includes principles of rehabilitation and neurological disease processes. Prerequisites: PT 604, PT 605, PT 606, PT 621 Traditional Lecture/Lab (4 credit hours)

**PT 638. Neurological Aspects Phys Ther Pract III.** Assessment and treatment of neurological and musculoskeletal dysfunctions presenting in the 0 to 21 years age population in a variety of community and healthcare settings. Emphasis is placed on comprehensive management of neuromuscular conditions and includes overview of congenital or acquired orthopedic conditions affecting the pediatric population. Prerequisites: PT 605, PT 606, PT 612, and PT 621 Traditional Lecture/Lab (4 credit hours)

**PT 640. Legal and Ethical Issues in Healthcare.** An overview of the legal structure of the healthcare system, including public and private law affecting healthcare. Concurrent ethical issues are explored, with a focus on ethical principles and decision making. Traditional Lecture (2 credit hours)

**PT 641. Organizational Syst Hlthcare Delivery.** An overview of the structure of healthcare delivery. Emphasizes patient settings, reimbursement mechanisms, accreditation, risk management, consultation, advocacy, and quality assessment and improvement. Prerequisite: PT 640 Traditional Lecture (2 credit hours)

**PT 642. Resource Management in Physical Therapy.** Explores the business management of the physical therapy practice. Includes management theory, strategic planning, operations planning, human resource management, budgeting, marketing, and leadership. Prerequisite: PT 641 Traditional Lecture (2 credit hours)

**PT 650. Clinical Experience I.** An eight week full time clinical education experience. Emphasis based on basic evaluation and treatment techniques of musculoskeletal conditions of the upper and lower extremities and medical conditions. Prerequisite: Enrolled in regular track and in good academic standing. Traditional Clinical Rotation (6 credit hours)

**PT 651. Clinical Experience II.** An eight week full time clinical education experience. The student is assigned to one of a variety of practice settings. Emphasis is on comprehensive evaluation, diagnosis, and treatment planning for a variety of patient care problems. Prerequisites: PT 650, enrolled in regular track, and in good academic standing. Traditional Clinical Rotation (6 credit hours)

**PT 652. Clinical Experience III.** The final clinical education course consisting of full time long term experiences in a variety of settings. This course is the culmination of the students’ previous didactic and clinical experiences and is designed to assist the student in achieving clinical competence as an entry level physical therapist. Emphasis is on professional behaviors as well as comprehensive patient management. Prerequisites: PT 651, enrolled in regular track, and in good academic standing. Traditional Clinical Rotation (6 credit hours)

**PT 653. Clinical Experience IV.** The final clinical education course consisting of full time long term experiences in a variety of settings. This course is the culmination of the students’ previous didactic and clinical experiences and is designed to assist the student in achieving clinical competence as an entry level physical therapist. Emphasis is on professional behaviors as well as comprehensive patient management. Prerequisites: PT 652, enrolled in regular track, and in good academic standing. Traditional Clinical Rotation (6 credit hours)

**PT 660. Evidence-Based Physical Therapy Pract I.** A survey of research design and statistical methods used in biomedical research. Content will provide an introduction to foundational knowledge necessary for interpreting scientific literature. Traditional Lecture (3 credit hours)

**PT 661. Evidence-Based Physical Therapy Pract II.** Building on foundational concepts of PT 660, this course develops the ability of the student to interpret and appraise evidence in physical therapy literature. Prerequisite: PT 660 Traditional Lecture (2 credit hours)

**PT 662. Journal Seminar I.** Preceptor guided group process review of current literature for the development of methodology for a research project. Seminar is pass/fail. Traditional Laboratory (1 credit hours)

**PT 663. Journal Seminar II.** Preceptor guided group process review of current literature related to the completion of a research project. Emphasis on the integration of the literature in the clinical practice of physical therapy. Seminar is pass/fail. Traditional Laboratory (1 credit hours)

**PT 670. Specialty Practice in Physical Therapy.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 credit hours)

**PT 670-01. Advanced Ortho and Sports PT.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Online, Internet, or Web-based Lecture/Lab (2 credit hours)

**PT 670-02. Neurologic Physical Therapy.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Online, Internet, or Web-based Lecture/Lab (2 credit hours)

**PT 670-03. Pediatric Physical Therapy.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Online, Internet, or Web-based Lecture/Lab (2 credit hours)

**PT 670-04. Advanced Manual Therapy.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Online, Internet, or Web-based Lecture/Lab (2 credit hours)
The demand for radiologic procedures has increased, thus creating a demand for new professionals in the field. As technology advances and the population ages, excellent career opportunities exist in hospitals, diagnostic imaging centers and private physician’s offices. The Bachelor of Science in Radiologic Sciences provides graduates opportunities for career advancement in areas such as administrative, medical sales, education, quality management and public health facilities. A career as a radiologic technologist offers a promising future, job stability and competitive salaries with other health professionals who have similar educational backgrounds. Radiologic sciences is a specialized field in which professional radiologic technologists perform medical imaging procedures for the purpose of diagnosing disease and injury. The radiologic technologist is responsible for performing a variety of challenging and interesting examinations on a diverse patient population. These include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women's health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Online, Internet, or Web-based Lecture/Lab (2 credit hours)

**PT 670-05. Applied Integumentary Concepts in PT.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women's health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Online, Internet, or Web-based Lecture/Lab (2 credit hours)

**PT 670-10. Alternative PT Management.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women's health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 credit hours)

**PT 670-11. Intro to Aquatic Rehab.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 credit hours)

**PT 670-12. PT and Progressive Neurologic Disorders.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 credit hours)

**PT 670-15. Survey of PT Practice in Oncology.** Students may take an elective course in a specialty practice area of interest. These can include areas such as sports physical therapy, aquatics, advanced manual therapy skills, women’s health, pediatrics, neurological therapy skills, or other areas of interest. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Online, Internet, or Web-based Lecture/Lab (2 credit hours)

**PT 671. Independent Study in Physical Ther Pract.** An independent study course designed to enhance the knowledge base in administrative, education, or clinical issues. Permission of the instructor and department chair is required. Credit hours assigned according to the scope of the project. Traditional Lecture (1-4 credit hours)

**PT 672. Special Topics in Physical Therapy Pract.** A student may take this course on a subject of interest or a clinical practice area of physical therapy with permission of the course faculty and department chair. Credit hours assigned according to the scope of the project. Traditional Lecture (1-4 credit hours)

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**RADIOLOGIC SCIENCES (BS)**

Kristi Moore, PhD, RT (R) (CT), ARRT, Department Chair and Program Director
Seena Edgerton, DHA, RT (R) (M), ARRT, Clinical Coordinator

**FACULTY**

**Associate Professors:**
Kristi Moore, PhD, RT (R) (CT), ARRT
Mark R. Gray, PhD, RT (R), ARRT

**Assistant Professors:**
Angela Burrell, MSN, RN
Seena Edgerton, DHA, RT (R) (M), ARRT
Sherry J. West, DHA, RT (R) (N), ARRT, CNMT
Mike Ketchum, DHA, RT (R), ARRT
Kevin McKay, MA, RT (R) (T), ARRT, CMD
Asher Street, MS, RT (R) (MR), ARRT

**Instructors:**
Lee Brown, BS, RT (R) (N), ARRT, CNMT

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**ABOUT THE PROFESSION**

The field of radiologic sciences is a dynamic profession that is ever-changing in terms of technology and professional expertise. Radiology is one of the fastest growing, most exciting and increasingly important fields in medicine today. Radiologic sciences is a specialized field in which professional radiologic technologists perform medical imaging procedures for the purpose of diagnosing disease and injury. The radiologic technologist is responsible for performing a variety of challenging and interesting examinations on a diverse patient population. Those procedures include conventional radiography, fluoroscopy and surgical studies. Although many graduates seek employment as diagnostic radiographers, some choose to specialize in advanced imaging modalities, such as magnetic resonance imaging, computed tomography, sonography, radiation therapy, nuclear medicine, mammography, vascular imaging and quality management. As an integral part of the health care team, radiologic technologists endeavor to provide outstanding patient care while limiting radiation exposure to patients, themselves and others.

A career as a radiologic technologist offers a promising future, job stability and competitive salaries with other health professionals who have similar educational backgrounds. Excellent career opportunities exist in hospitals, diagnostic imaging centers and private physician’s offices. The Bachelor of Science in Radiologic Sciences provides graduates opportunities for career advancement in areas such as administration, medical sales, education, quality management and public health facilities. As technology advances and the population ages, the demand for radiologic procedures has increased, thus creating a demand for new professionals in the field.

**ACCREDITATION STATUS**

The radiologic sciences program is accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), mail@jrcert.org. 20 N. Wacker Dr., Suite 2850; Chicago, IL 60606-2901. JRCERT’s phone number is (312) 704-5300.
TRADITIONAL RADIOLOGIC SCIENCES

The traditional baccalaureate degree program in radiologic sciences is an entry-level program for students who want to become a registered radiologic technologist. Upon completion of the program, consisting of 22 continuous months, students receive a bachelor of science degree and are prepared to apply for and are eligible to take the examination for certification as a registered radiologic technologist.

PROGRAM ADMISSION REQUIREMENTS

In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the radiologic sciences program must:

1. Have completed a minimum of 60 semester hours of academic credit from a regionally accredited institution of higher learning;
2. Have a minimum overall cumulative grade point average of 2.50 on a 4.00 scale;
3. Complete an interview with the Radiologic Sciences Admissions Committee;
4. Submit ACT scores;
5. Hold current CPR certification at the time of registration;
6. Successfully complete a background check at the time of registration; and
7. Successfully complete (a grade of “C” or better) the following minimum prerequisite number of required courses:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Social or Behavioral Science¹</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Speech</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humanities and Fine Arts²</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Anatomy and Physiology with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Natural Sciences³</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Basic Computer Concepts and Applications</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Electives⁴</td>
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<td>19</td>
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<tr>
<td>Total Prerequisites</td>
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<td>60</td>
</tr>
</tbody>
</table>

¹Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.
²Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.
³Natural Sciences include courses such as astronomy, biology, chemistry, geology, physics or physical science.
⁴The Radiologic Sciences Admissions Committee highly recommends general chemistry with lab and general physics as electives. Additional recommended electives are medical terminology, natural sciences (biology, microbiology), advanced mathematics and advanced computer sciences.

PROGRAM APPLICATION DEADLINE

All application documents and the application fees must be received by the Office of Student Records and Registrar by February 15 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

EXPENSES

In addition to tuition, fees, health insurance and professional association dues, students should be prepared to spend $3,600 the first year and $1,650 the second year at the University of Mississippi Medical Center for necessary books, uniforms and instruments. Online students should be prepared to pay a distance education fee of $150 each semester.

DEGREE AND CERTIFICATION

Candidates for the radiologic sciences degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or better on a 4.00 scale on all work at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Radiologic Sciences from the University of Mississippi and are eligible to take the examination for certification offered by the American Registry of Radiologic Technologists (ARRT). Most states require licensure in order to practice; however, state licenses are usually based on the results of the ARRT certification examination. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the ARRT certification examination or attain state licensure.

PROFESSIONAL COURSE OF STUDY

JUNIOR YEAR

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAD 300 Concepts of Radiologic Sciences</td>
<td>2</td>
</tr>
<tr>
<td>RAD 306 Radiographic Procedures I</td>
<td>3</td>
</tr>
<tr>
<td>RAD 312 Radiation Protection</td>
<td>2</td>
</tr>
<tr>
<td>RAD 318 Principles of Image Formation I</td>
<td>3</td>
</tr>
<tr>
<td>RAD 324 Age Specific Patient Care</td>
<td>2</td>
</tr>
<tr>
<td>RAD 354 Clinical Practicum I</td>
<td>2</td>
</tr>
</tbody>
</table>

14
Spring
RAD 330 Radiologic Physics 3
RAD 336 Radiobiology 2
RAD 342 Research Methods 2
RAD 348 Radiographic Procedures II 3
RAD 350 Principles of Image Formation II 3
RAD 360 Clinical Practicum II 2

SENIOR YEAR
Summer
RAD 400 Legal and Ethical Issues in Imaging Sciences 3
RAD 451 Management Issues in Diagnostic Health Care 3
RAD 454 Clinical Practicum III 3
RAD 472 Seminar I 1

Fall
RAD 406 Radiographic Procedures III 3
RAD 418 Digital Image Acquisition and Display 3
RAD 436 Radiographic Pathology 3
RAD 460 Clinical Practicum IV 3

Spring
RAD 412 Advanced Medical Imaging Science 2
RAD 424 Principles of Computed Tomography 2
RAD 430 Pharmacology and Drug Administration 2
RAD 448 Radiographic Procedures IV 2
RAD 466 Clinical Practicum V 3
RAD 475 Seminar II 2

Total Required Hours 64

CLINICAL FACILITIES
 Clinical educational experiences in radiologic sciences are provided in conjunction with the following health care facilities:
- Baptist Medical Center Yazoo - Yazoo City
- G. V. “Sonny” Montgomery VA Medical Center - Jackson
- Hardy Wilson Memorial Hospital - Hazlehurst
- Madison Radiological Group LLC - Madison
- Merit Health Rankin - Brandon
- Merit Health River Region - Vicksburg
- Mississippi Methodist Rehabilitation Center - Jackson
- University of Mississippi Medical Center (Jackson Medical Mall) - Jackson
- University of Mississippi Medical Center (Lakeland Family Medicine Center) - Jackson
- University of Mississippi Medical Center (University Hospital and Health System) - Jackson
- University Physicians Grants Ferry Clinic - Flowood

ADVANCED STANDING RADIOLOGIC SCIENCES
The advanced standing baccalaureate degree program in radiologic sciences is intended to enhance the quality and education of registered radiologic technologists. It enables practicing registered radiologic technologists to update their education background, enhance their didactic skills, improve their clinical decision-making skills, and receive the Bachelor of Science in Radiologic Sciences. The program, offered across five semesters, is designed for, but not limited to, part-time, non-traditional students. Online course work is the method of content delivery.

PROGRAM ADMISSION REQUIREMENTS
In addition to the admission standards of the institution and the general admission requirements of the School of Health Related Professions, candidates seeking admission to the advanced standing radiologic sciences program must:
1. Submit a copy of current ARRT (R) credential;
2. Have completed a minimum of 60 semester hours of academic credit (exclusive of physical education, military science, dogmatic religion, and vocational courses) from a regionally accredited institution of higher learning;
3. Have a minimum cumulative GPA of 2.50 on a 4.00 scale; and
4. Successfully complete (a grade of “C” or better) the following minimum prerequisite number of required courses below:

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</tr>
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College Algebra, Quantitative Reasoning or Higher Mathematics 1 3
Humanities and Fine Arts³ 3 9
Anatomy and Physiology with lab 2 8
Natural Sciences¹ 1 3
Electives⁴ 25
Total Prerequisites 60
¹Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.
²Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.
³Natural Sciences include courses such as astronomy, biology, chemistry, geology, physics or physical science.
⁴The Radiologic Science Admissions Committee highly recommends general chemistry with lab and general physics as electives. Additional recommended electives are medical terminology, natural sciences (biology, microbiology), advanced mathematics and advanced computer sciences.

PROGRAM APPLICATION DEADLINE
All application documents and application fees must be received by the Office of Student Records and Registrar by July 1 for fall admission. General application information may be found in the General Application Procedures section of the School of Health Related Professions. The School reserves the right to consider and accept applications after the established deadline if places are available. To determine if a deadline has been extended, call the Office of Student Records and Registrar after the deadline at (601) 984-1080.

PROFESSIONAL COURSE OF STUDY

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<td>3</td>
</tr>
<tr>
<td>RAD 414 Advanced Clinical Practice Skills</td>
<td>4</td>
</tr>
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<td>RAD 418 Digital Image Acquisition and Display</td>
<td>3</td>
</tr>
<tr>
<td>RAD 430 Pharmacology and Drug Administration</td>
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<td>3</td>
</tr>
<tr>
<td>RAD 438 Radiographic Image Analysis</td>
<td>4</td>
</tr>
<tr>
<td>RAD 442 Clinical Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>RAD 451 Management Issues in Diagnostic Health Care</td>
<td>3</td>
</tr>
<tr>
<td>RAD 478 Computed Tomography Applications and Sectional Imaging</td>
<td>4</td>
</tr>
<tr>
<td>RAD 484 Radiologic Sciences Directed Study*</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Required Hours 34

*Upon the successful completion of RAD 484, students will be awarded an additional 30 semester hours of transfer elective credit based on required course work completed in the previous program that enables them to sit for and earn their professional credential.

COURSE DESCRIPTIONS

RAD 300. Concepts of Radiologic Sciences. An overview of the foundations in radiography involving the practitioner’s role in the healthcare delivery system. An introduction to general anatomy and body systems, mobile radiography, trauma radiography, and surgical radiography are explored. Principles, practices, and policies of the healthcare organization(s), medical language, professional communication, and professional responsibilities of the radiographer will be examined and discussed. Traditional Lecture (2 credit hours)

RAD 306. Radiographic Procedures I. Provides a knowledge base necessary to perform standard radiographic procedures of the thoracic viscera, abdomen, upper and lower extremities, and bony thorax. Content includes the radiographic anatomy and positioning of these body structures. Laboratory experience will be used to complement the didactic portion. Traditional Lecture/Lab (3 credit hours)

RAD 312. Radiation Protection. Basic theories and principles related to the safe utilization of diagnostic radiographic equipment in a clinical setting. The student applies the theories and principles of safe radiation exposure. Traditional Lecture (2 credit hours)

RAD 318. Principles of Image Formation I. Factors that govern and influence the production and recording of radiologic images. Content includes the importance of minimum imaging standards, discussion of a problem-solving technique for image evaluation, and the factors affecting image quality. Laboratory experience will be used to complement the didactic portion. Traditional Lecture/Lab (3 credit hours)

RAD 324. Age Specific Patient Care. Patient care theory and techniques for a diverse patient population. Content includes age appropriate interpersonal communication, human diversity, patient transfer, and immobilization techniques, vital sign monitoring, sterile and aseptic technique, infection control, and medical emergencies. Traditional Lecture (2 credit hours)

RAD 330. Radiologic Physics. Qualitative and quantitative concepts of radiation physics pertaining to medical applications in radiology; atomic and nuclear structure; properties of radiation; x-ray production; artificial production; photon interactions in matter; and attenuation processes. Traditional Lecture (3 credit hours)

RAD 336. Radiobiology. Qualitative and quantitative concepts of radiobiology pertaining to genetic and somatic effects of ionizing radiation and the mechanisms of interaction from subcellular level to organism. Traditional Lecture (2 credit hours)

RAD 342. Research Methods. Provides an overview of research design methodology in radiologic sciences. Emphasis is on data collection, analysis, interpretation, and effective communication of research via written and oral presentations. Traditional Lecture (2 credit hours)

RAD 348. Radiographic Procedures II. A continuation of RAD 306. Content includes the radiographic anatomy and positioning of the shoulder and pelvic girdles, as well as the vertebral column. Laboratory experience will be used to complement the didactic portion. Traditional Lecture/Lab (3 credit hours)

RAD 350. Principles of Image Formation II. A continuation of RAD 318. Content will include imaging accessories, technique charts, image receptors, image processing, sensitometry, and criterion for image evaluation. Laboratory experience will be used to complement the didactic portion. Traditional Lecture/Lab (3 credit hours)
RAD 354. Clinical Practicum I. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of radiologic procedures. Content includes patient assessment; radiographic examinations of extremities (upper and lower), chest, bony thorax, and abdomen; radiologic imaging critique; concepts of team practice and patient-centered clinical practice; total quality management; and professional development. Traditional Clinical Rotation (2 credit hours)

RAD 360. Clinical Practicum II. A continuation of RAD 354. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of radiologic procedures. Content includes patient assessment; radiographic examinations of extremities (upper and lower) and girdles, chest, bony thorax, abdomen, and vertebral column; radiologic imaging critique; concepts of team practice and patient-centered clinical practice; total quality management; and professional development. Traditional Clinical Rotation (2 credit hours)

RAD 400. Legal and Ethical Issues in Imaging Sciences. A study of legal and ethical issues in imaging sciences. Topics include ethical theories, end of life care, living wills, confidentiality, risk management and quality review, HIPAA, and implementation of the electronic health record. Traditional Lecture (3 credit hours)

RAD 406. Radiographic Procedures III. A continuation of RAD 348. Content includes the radiographic anatomy and positioning of the digestive system, biliary system, and cranium. Laboratory experience will be used to complement the didactic portion. Traditional Lecture/Lab (3 credit hours)

RAD 412. Advanced Medical Imaging Science. A study of the advanced physical principles of diagnostic radiology. Topics include image intensification, specialized radiographic units, and quality control of radiographic equipment and accessories. Traditional Lecture (2 credit hours)

RAD 414. Advanced Clinical Practice Skills. Focuses on the current healthcare delivery environment including patient assessment, monitoring, infection control, and management. It includes working with multicultural patients, managing problem patients, and patient education. Additional topics include an overview of considerations when working in an increasingly digital imaging environment. Online, Internet, or Web-based Lecture (4 credit hours)

RAD 418. Digital Image Acquisition and Display. Explores the components, principles, and operations of digital imaging systems. Factors that impact image acquisition, display, archiving and retrieval are discussed. Principles of digital imaging quality assurance and maintenance are presented. Traditional Lecture (3 credit hours)

RAD 424. Principles of Computed Tomography. Explores the basic physical and technical principles of computed tomography (CT) imaging. Content includes computed tomography generations, components, operations, and imaging processes with an emphasis on sectional anatomy as compared to planar anatomy as seen in computed tomography. Online, Internet, or Web-based Lecture (4 credit hours)

RAD 430. Pharmacology and Drug Administration. An overview of pharmacologic principles and practices in patient care with emphasis on imaging procedures. Topics include biopharmaceutics, pharmacokinetics, pharmacodynamics, drug classifications, radiopharmaceuticals, venipuncture, routes of drug administration, emergency medications, and cardiac monitoring. Traditional Lecture (2 credit hours)

RAD 436. Radiographic Pathology. Introduces theories of disease causation and the pathophysiologic disorders that compromise healthy systems. Content includes etiology, pathophysiologic responses, clinical manifestations, radiographic appearance, and management of alterations in body systems. Traditional Lecture (3 credit hours)

RAD 438. Radiographic Image Analysis. A study of specific factors of the radiographic process that affect image quality, with an emphasis on refinement of image analysis and problem-solving skills. Image analysis of the appendicular skeleton, axial skeleton, chest, abdomen, and digestive system will be explored. Online, Internet, or Web-based Lecture (4 credit hours)

RAD 442. Clinical Research Methods. A study of research design methodology in radiologic sciences. Topics include terminology of research, qualitative and quantitative methods, statistics, basic research designs, and data analysis techniques. Emphasis is placed on critical review of radiologic sciences research studies and their application to clinical practice. Online, Internet, or Web-based Lecture (4 credit hours)

RAD 445. Concepts of Magnetic Resonance Imaging. A study of the basic physical principles of magnetic resonance imaging (MRI). Content includes fundamentals of magnetic resonance imaging, equipment and instrumentation, radiofrequency and gradients, image production parameters, contrast media, pulse sequences, safety essentials, image quality, and procedure protocols of common magnetic resonance imaging examinations. Provides an overview of human anatomy, viewed in body sections, as it relates to the imaging professional. Pathologic diseases and conditions commonly imaged utilizing MRI will also be studied. Online, Internet, or Web-based Lecture (3 credit hours)

RAD 448. Radiographic Procedures IV. A continuation of RAD 406. Content includes the radiographic anatomy and positioning of the urinary system, reproductve system, central nervous system, as well as the use of advanced radiographic procedures. Traditional Lecture (2 credit hours)

RAD 451. Management Issues in Diagnostic Health Care. A study of managerial roles and functions in healthcare organizations with emphasis in diagnostic imaging. Content includes connective processes, planning, organizing, staffing, influencing, controlling, and labor relations. Provides a foundation of managerial thoughts and processes which lead to organizational success and maximum productivity. Online, Internet, or Web-based Lecture (3 credit hours)

RAD 454. Clinical Practicum III. A continuation of RAD 360. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of radiologic procedures. Content includes patient assessment; radiographic examinations of extremities (upper and lower) and girdles, chest, bony thorax, abdomen, and vertebral column; radiologic imaging critique; concepts of team practice and patient-centered clinical practice; total quality management; and professional development. Traditional Clinical Rotation (3 credit hours)
RAD 457. Breast Imaging Principles. A study of the basic physical principles of breast imaging (mammography). Content includes fundamentals of breast imaging, equipment and instrumentation, image production parameters, quality control and regulations, patient care in breast imaging, breast ultrasound, digital mammography, and procedure protocols and techniques specific to breast imaging examinations. Provides an overview of breast anatomy and pathology. Online, Internet, or Web-based Lecture (3 credit hours)

RAD 460. Clinical Practicum IV. A continuation of RAD 454. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of radiologic procedures. Content includes patient assessment; radiographic examinations of extremities (upper and lower) and girdles, chest, bony thorax, abdomen, vertebral column, and gastrointestinal system; radiologic imaging critique; concepts of team practice and patient-centered clinical practice; total quality management; and professional development. Traditional Clinical Rotation (3 credit hours)

RAD 463. Patient Safety in Radiologic Sciences. A study of the essentials of patient safety in the healthcare environment, with emphasis on safety within the imaging profession. Content includes an introduction to healthcare safety, workplace safety, risk management, patient transfer and transport, patient fall prevention protocols, infection control practices, medication safety, sentinel event policies and prevention, and radiation protection. Online, Internet, or Web-based Lecture (3 credit hours)

RAD 466. Clinical Practicum V. A continuation of RAD 460. Supervised clinical practice experience designed for sequential development, application, critical analysis, integration, synthesis, and evaluation of concepts and theories in the performance of radiologic procedures. Content includes patient assessment; radiographic examinations of extremities (upper and lower) and girdles, chest, bony thorax, abdomen, vertebral column, urinary system, gastrointestinal system, reproductive system, and central nervous system; radiologic imaging critique; concepts of team practice and patient-centered clinical practice; total quality management; and professional development. Traditional Clinical Rotation (3 credit hours)

RAD 472. Seminar I. An overview of various topics in radiologic sciences. Traditional Lecture (1 credit hour)

RAD 475. Seminar II. A continuation of RAD 472 and provides an overview of various topics in radiologic sciences. Traditional Lecture/Lab (2 credit hours)

RAD 478. CT Applications and Sectional Imaging. A study of the basic physical principles of computed tomography (CT) imaging. Content includes fundamentals of computed tomography, equipment and instrumentation, data acquisition, image processing and reconstruction, patient safety, image quality, and procedure protocols of common computed tomography examinations. Provides an overview of human anatomy, viewed in body sections, as it relates to the imaging professional. Online, Internet, or Web-based Lecture (4 credit hours)

RAD 484. Radiologic Sciences Directed Study. Involves a directed study designed to provide registered radiologic technologists the opportunity to demonstrate their expanded capabilities resulting from previous didactic and clinical experience gained in radiologic sciences. Requires the student to utilize the knowledge, skills, and insights gained from previous courses taken in the Advanced Standing Radiologic Sciences Track and requires the student to develop a comprehensive ePortfolio of material that includes, but is not limited to, directed reading essays, testing assignments, CITI Basic Course assignments, an MSHH Healthcare Law presentation, and a Curriculum Vitae. The student will work with a supervising faculty member and a mentor/preceptor. Prerequisite: Senior standing and permission of the program director are required. Online, Internet, or Web-based Lecture (4 credit hours)

RAD 490. Special Topics. Interdisciplinary elective. Content varies. May be repeated for credit. Prerequisite: Permission of instructor. Traditional Lecture (1-4 credit hours)

FACULTY

KAYLA C. ABRAHAM, BS (University of Louisiana at Monroe); assistant professor of occupational therapy

FELIX ADAH, BS (University of Ille), M.S. (University of Ibadan), PhD (University of Mississippi); professor of physical therapy

JEANETTE ADAIR, BA (Ottawa University), MSSM (University of Mississippi); associate professor of general administration

JESSYLEN AGE, BSN, MSHA (Mississippi College), DNP (University of Mississippi); assistant professor of health sciences

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SHARON ANDREWS, BS (University of Mississippi); instructor of dental hygiene

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REBECCA M. BARRY, BS (Louisiana State University), MEd (Mississippi State University), PhD (University of Mississippi); professor of dental hygiene

KAYE BENDER, MS (University of Southern Mississippi), BSN, PhD (University of Mississippi); professor of health administration

HAMED A. BENGHUZZI, BS (University of Garyounis-Benghazi), MS, PhD (University of Dayton); professor of clinical health sciences

BARBARA BRENT, BS (University of Mississippi); instructor of dental hygiene

LEE BROWN, BS (University of Mississippi); instructor of radiologic sciences

SHELLIA A. BULLOCK, BSN (University of North Alabama), MBA (Belhaven University); instructor of health informatics and information management

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PETER GIROUX, BS (Northeastern Louisiana University), MHS (Mississippi College), PhD (University of Mississippi); professor of occupational therapy

MARK R. GRAY, BA (Ottawa University), MS, PhD (University of Mississippi); associate professor of radiologic sciences

CARISA NIXON HAIRE, BSN (Union University), BS HIlIM (University of Mississippi); instructor of health informatics and information management

ELGENAID HAMADAIN, BS (University of Alexandria), MS, PhD (Mississippi State University); professor of clinical health sciences

JOHN HODNETT, BS, MEd (Delta State University), BSN (University of Southern Mississippi), MSN (University of Alabama), DNP (University of Alabama Tuscaloosa); assistant professor of health sciences

SANDRA HORNE, BS (University of Mississippi), MHSA (Mississippi College); DHA (University of Mississippi Medical Center); associate professor of dental hygiene

MIN HUANG, BS, PhD (University of Mississippi), MD (Tongji Medical University); professor of physical therapy

JOHN C. HYDE, BS (Western Kentucky University), MS (Trinity University), PhD (University of Alabama at Birmingham); professor

JAMIL IBRAHIM, BA (University of Mustansiriyyah), MBA (Jackson State University), PhD (University of Southern Mississippi); associate professor of health sciences

ELLEN JONES, BS (Springfield College), MS (University of Southern Mississippi), PhD (University of Mississippi); assistant professor of health administration

MIKE KETCHUM, BS (University of Louisiana at Monroe), MSEd (Peru State College), DHA (University of Mississippi); assistant professor of radiologic sciences

ED KING, BA (Millsaps College), BST, MST (Boston University); associate professor of clinical health sciences

JOY KUEBLER, BS (University of Mississippi), MS (University of Alabama at Birmingham), DPT (University of South Alabama); associate professor of physical therapy

Megan LADNER, BS (University of Mississippi), MS (University of Southern Mississippi); assistant professor of occupational therapy

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MELANIE LAUDERDALE, BS (Mississippi State University), DPT (University of Mississippi); assistant professor of physical therapy

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER

ELIZABETH MOORE, BS (University of Mississippi); instructor of dental hygiene

KRISTI MOORE, BS, MS, PhD (University of Mississippi); associate professor of radiologic sciences

LATOYA RICHARDS-MOORE, BS (Tougaloo College), BS, MS, PhD (University of Mississippi); associate professor of medical laboratory science

ANGELA MOREY, BS (Medical College of Georgia), MSM (Georgia State University); assistant professor of health informatics and information management
CHRISTY M. MORGAN, BS (University of Mississippi), MHSA (Mississippi College), PhD (University of Mississippi); associate professor of occupational therapy
LISA MORTON, BS (Louisiana Tech University), MLIS (Louisiana State University), PhD (Drexel University); associate professor of health informatics and information management
MARC NIVET, BS (Southern Connecticut State University), MS (Long Island University), EdD (University of Pennsylvania); associate professor of health sciences
MITZI NORRIS, BS, MS (Mississippi University for Women), PhD (University of Mississippi); associate professor of health administration
DELLI OWENS, BSN. (University of Southern Mississippi), MSN (University of Alabama), JD (University of Mississippi); assistant professor of health informatics and information management
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REBECCA H. PEARSON, BS, MEd, EdS, PhD (University of Mississippi); professor of physical therapy
ANN H. PEDEN, BA, PhD (University of Mississippi), MBA (Louisiana Tech University); professor of health informatics and information management
TERRY POLLARD, BS, MA (University of Southern Mississippi); assistant professor of general administration
CHARLES E. RAMSEY, BS (Mississippi College), DMD (University of Mississippi); assistant professor of dental hygiene
MOLLY RATCLIFF, BBA, MS (Mississippi State University); instructor of general administration
RICHARD ROBERSON, BA (Baylor University), JD (University of Mississippi); assistant professor of health administration
JONI ROBERTS, BA (Washington Adventist University), MAT (American University), DrPh (Loma Linda University); assistant professor of health sciences
ROBIN W. ROCKHOLD, BA (Kenyon College), PhD (University of Tennessee); professor of clinical health sciences
PENNY ROGERS, BS (University of Mississippi), MAT, (Grand Canyon University), DHA (University of Mississippi); assistant professor of occupational therapy
BRIAN RUTLEDGE, BA, MHSA (Mississippi College), PhD (University of Mississippi); assistant professor of health administration
TRAVIS SCHMITZ, BS, MBA (Mississippi College), PhD (University of Mississippi); assistant professor of health sciences
CYNTHIA SENIOR, BS (University of Mississippi), MEd (William Carey University); instructor of dental hygiene
JANET SlaughteR, BS, DPT (University of Mississippi); associate professor of physical therapy
ASHER STREET, BS (University of Mississippi); instructor of radiologic sciences
LORRAINE STREET, BS (University of Mississippi), MOT. (Texas Woman’s University), PhD (University of Mississippi); professor of occupational therapy
PAULA STUBBS, MST (Jackson State University), BS, BSPE, PhD (University of Mississippi); professor of physical therapy
AMY L. SULLIVAN, BS, MS, PhD (University of Mississippi); professor of dental hygiene
FELICIA M. TARDY, BS (Alcorn State University), BS, MS, PhD (University of Mississippi); associate professor of medical laboratory science
JUANYCE TAYLOR, BS (University of Southern Mississippi), MEd (Jackson State University); assistant professor of health sciences
SUSAN TAYLOR, BA, BS (Blue Mountain College), MS, PhD (University of Mississippi); professor of health administration
TONIA B. TAYLOR, BS, PhD (Jackson State University); associate professor of occupational therapy
CAROL TUBBS, BS (Louisiana State University), BA, MA (Louisiana State University); professor of health administration
HELEN TURNER, BS (Mississippi University for Women), PhD, MD (University of Mississippi); associate professor of occupational therapy
STACY HULL VANCE, BS, MS (Jackson State University), BS, MS, PhD (University of Mississippi); associate professor of medical laboratory science
STEVE H. WATSON, BA, MCC, MPC (Mississippi College), PhD (Mississippi State University); associate professor of general administration
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SHERRI J. WEST, BS, MS (Midwestern State University), DHA (University of Mississippi); assistant professor of radiologic sciences
THOMAS WIGGERS, BS (Millsaps College), MS (Mississippi College); associate professor of medical laboratory science
KIMBERLY CURBOW WILCOX, BS (Mississippi State University), MS (Texas Woman’s University), BS, PhD (University of Mississippi); professor of physical therapy
RENEE WILKINS, BS, MS, PhD (University of Mississippi); associate professor of medical laboratory science
KIMBERLY WILLIS, BS, DPT (University of Mississippi); assistant professor of physical therapy
DORTHY YOUNG, BA (Furman University), MHSA (Mississippi College), PhD (University of Mississippi); instructor of health informatics and information management
## 2016-2017 Semester Academic Calendar

### SUMMER TERM

**May**
- 30 Mon  | Memorial Day
- 31 Tues | Classes begin for D3 and D4

**June**
- 1-5 Wed-Sun | Mississippi Dental Association Annual Meeting, Perdido Beach Resort, AL
- 10 Friday  | Last day to register

**July**
- 22 Wed    | Registration begins for 2016-2017 Fall Semester

**August**
- 1 Mon    | $100 Late Registration Fee for 2016-2017 Summer Term Effective Today
- 5 Fri    | Last day of Summer term
- 9 Tues-Fri | Summer grades due

### FALL SEMESTER

- 9-12 Tues-Fri | D1 orientation
- 11-12 Thurs-Fri | Faculty retreat
- 15 Mon      | ASDA Recognition Day

**September**
- 15 Mon    | $100 Late Registration Fee for 2016-2017 Fall Semester Effective Today
- 16 Tues   | All classes begin D1,D2,D3,D4
- 18 Thurs  | SEPC D3,D4 summer term
- 19 Fri    | Last day to register for fall semester

**October**
- 26 Fri    | Last day to submit an application for December degree

**November**
- 7 Mon     | Registration begins for 2016-2017 Spring Semester
- 24-25 Thurs-Fri | Thanksgiving holidays
- 28 Mon    | Classes resume

**December**
- 9 Fri     | Last Day of Class D1,D2
- 16 Fri    | Last Day of Clinic D3, D4
- 17 Sat    | End of the fall semester
- 22 Thurs  | Fall semester grades Due

**SPRING SEMESTER**

**January**
- 5 Thurs  | SEPC Fall Semester Meeting for D1, D2, D3, D4 Students
- 9 Mon    | Classes resume

**February**
- 9 Mon    | $100 Late Registration Fee for 2016-2017 Spring Semester Effective Today
- 13 Fri   | Last day to register for spring semester
- 16 Mon   | Martin Luther King’s birthday holiday observed
- 17 Tues  | Classes resume
- 17 Tues  | Grand Rounds resumes

**April**
- 20 Fri   | Last day to submit an application for May degree
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<thead>
<tr>
<th></th>
<th>January 30–February 3</th>
<th>Mon–Fri</th>
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<tbody>
<tr>
<td>8</td>
<td>Wed</td>
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<td>Student Financial Wellness Seminar</td>
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<td>10</td>
<td>Fri</td>
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<td>ADA Give Kids a Smile Day</td>
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<tr>
<td>17</td>
<td>Fri</td>
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<td>ACD White Coat Ceremony and D4 ACD Ethics Seminar</td>
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<td>21</td>
<td>Tues</td>
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<td>Research Day</td>
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<td>May</td>
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<td>13-17</td>
<td>Mon–Fri</td>
<td>Spring break</td>
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<tr>
<td>18-21</td>
<td>Sat–Tues</td>
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<td>American Dental Education Association Annual Meeting, Long Beach, CA</td>
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<td>20</td>
<td>Mon</td>
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<td>Classes resume</td>
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<tr>
<td>22-25</td>
<td>Wed–Sat</td>
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<td>American Association of Dental Research Annual Meeting, San Francisco, CA</td>
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<td>23</td>
<td>Thurs</td>
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<td>Impressions Program</td>
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<tr>
<td>23-25</td>
<td>Thurs–Sat</td>
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<td>Hinman Dental Meeting, Atlanta, GA</td>
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<td>April</td>
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<td>6</td>
<td>Thurs</td>
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<td>MS jurisprudence exam</td>
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<tr>
<td>10</td>
<td>Mon</td>
<td>Registration begins for 2017-2018 Summer Term</td>
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<tr>
<td>13</td>
<td>Thurs</td>
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<td>Hembree Honor Society Banquet</td>
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<td>28</td>
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<td>Alumni and Friends Weekend</td>
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<td>18</td>
<td>Tues</td>
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<td>Awards Day Program</td>
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<tr>
<td>4</td>
<td>Thurs</td>
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<td>Omicron Kappa Upsilon Dental Honor Society Banquet</td>
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<td>12</td>
<td>Fri</td>
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<td>MDA Senior Honors Banquet</td>
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<tr>
<td>12</td>
<td>Fri</td>
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<td>D4 deadline for diploma dated May 26</td>
</tr>
<tr>
<td>12</td>
<td>Fri</td>
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<td>Last day of classes for D1, D2, D3, D4</td>
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<tr>
<td>16</td>
<td>Tues</td>
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<td>All grades due</td>
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<tr>
<td>16</td>
<td>Tues</td>
<td>$50 Late Registration Fee for 2017-2018 Summer Term Effective Today</td>
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<tr>
<td>23</td>
<td>Tues</td>
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<td>SEPC Meeting D4 Students</td>
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<td>23-24</td>
<td>Tue–Wed</td>
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<td>D4 checkout and records reviews</td>
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<tr>
<td>24</td>
<td>Wed</td>
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<td>SEPC Meeting D1, D2, &amp; D3 students</td>
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<tr>
<td>26</td>
<td>Fri</td>
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<td>Commencement</td>
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**SCHOOL OF DENTISTRY**

David A. Felton, DDS, Dean  
Robert Scott Gatewood, DMD, Interim Associate Dean for Academic Affairs  
Jason A. Griggs, PhD, Associate Dean for Research  
Wilhelmina F. O’Reilly, DDS, Assistant Dean for Student Affairs  
Scott M. Phillips, DMD, Assistant Dean for Clinical Affairs  
John B. Smith, DMD, Assistant Dean for Admissions

**HISTORY**

The long-range plan for the development of the Medical Center included the creation of a dental school in the 1971-1979 period. In the regular session of 1973, the Mississippi Legislature authorized the Board of Trustees to establish a School of Dentistry at the Medical Center for the “encouragement of the study of dentistry toward the doctor of dental medicine degree (DMD) as well as the continued education of the state’s dental health professionals, and the encouragement of dental research and the improvement of dental health.”

The School of Dentistry enrolled its first students in 1975, and the first class was graduated in May, 1979. The dental education building, which adjoins the main Medical Center complex by an enclosed walkway, was completed in 1977. The contemporary, five-story structure was dedicated in public and scientific ceremonies in March 1978.

**PROGRAMS**

The School of Dentistry offers a course of instruction leading to the degree of Doctor of Dental Medicine (DMD). The curriculum extends over four calendar years and is accredited by the American Dental Association Commission on Dental Accreditation. The commission is a specialized accrediting body recognized by the American Dental Association Commission on Recognition of Postsecondary Accreditation and by the United States Department of Education. The Commission on Dental Accreditation can be contacted at (312) 440-2719 or at 211 East Chicago Avenue, Chicago, IL 60611.

Master of Science and Doctor of Philosophy degrees in Biomedical Materials Science are offered by the School of Graduate Studies in Health Sciences. These graduate programs are open to dentists, engineers and other scientists and medical professionals. They focus on the fundamental principles of materials science and the unique requirements associated with the use of materials in a living system, including the oral environment.

**MISSION**

The University of Mississippi School of Dentistry’s diverse student body, faculty and staff exemplify qualities of leadership and dedication to preparing competent, ethical dentists for Mississippi and to furthering the health of its citizens. The School of Dentistry fosters an environment of lifelong learning, collaborative teaching, service and research through partnerships within the Medical Center, and with community organizations and dental health practitioners throughout Mississippi.

**CORE VALUES**

**Integrity**
- Honesty and fairness in our actions
- Building trust within our relationships
- Courage to do “what is right”

**Excellence**
- Realize and commit to our full potential
- Achievement and performance set to the highest standards

**Leadership**
- Willingness to take responsibility
- Creating a vision, setting goals to make a difference

**Professionalism**
- Ethical conduct, character and spirit for the advancement of our profession

**Continuous Improvement**
- Dedication to lifelong learning while recognizing the need to change for improvement
- Establishing and monitoring goals to enhance our value to the profession and the citizens of Mississippi

**Diversity**
- Accept our differences while working together as a cohesive group and recognizing the value and strength derived through diversity

**Caring**
- Concern for and recognizing the needs of others
- Kindness and compassion shown in all interactions

**ADMISSION TO THE DENTAL CURRICULUM**

The authority to select applicants for admission to the UMMC School of Dentistry is vested in the Dental School Admissions Committee (DSAC) and the Dean of the School of Dentistry. DSAC is appointed by the Dean of the School of Dentistry and includes clinical and basic science faculty of the School of Dentistry and the School of Medicine, representatives of the dental private practice, UMMC School of
DENTAL

• Earliest date of acceptance notification: American Dental Association Dental Admission Test may be obtained from the pre-dental advisor in most colleges or from the American Dental Admission Test (DAT). The test applicants must complete all required course work at an accredited U.S. or Canadian college or university. Full-time members of the U.S. applications from students who cannot demonstrate residency as defined by Miss. Code § 37-103-7 and 37-103-13. In recent years, applications only from individuals who are U.S. citizens or lawful permanent residents. The School of Dentistry may choose to not accept as defined by Miss. Code § 37-103-7 and 37-103-13. In recent years, nonresidents have not been considered for admission to the School of Dentistry. Applicants must complete all required course work at an accredited U.S. or Canadian college or university. Full-time members of the U.S. military must obtain orders to be based in Mississippi prior to starting first-year classes. All questions pertaining to resident status should be addressed to the Office of Student Records and Registrar, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505.

INTERVIEWS – Applicant files are reviewed by the School of Dentistry Admissions screeners. Applicants whose credentials indicate potential for success in the UMMC dental school program are invited for an interview session which includes multiple mini-interviews with members of the DSAC. Applicants must not present themselves for interviews until requested to do so by the Admissions Committee. Prescreening factors include, but are not limited to, metrics (grades and DAT scores), shadowing experiences (minimum of 100 hours of shadowing is required with at least four different dentists), research experience, commitment to community service (volunteer work with at least four different organizations is recommended) as well as professionalism, leadership, and other non-cognitive attributes. Interviews are scheduled during specific periods, and applicants are notified in advance of such periods.

APPLICATION PROCEDURE – The UMMC School of Dentistry is now a participant of the ADEA Associated American Dental Schools Application Service, AADSAS. Applicants can apply online. Contact information for ADEA AADSAS:

- Phone: (617) 612-2045 (Applicant inquiries only)
- E-mail: mailto:aadssinfo@aadsasweb.org
- Website: http://portal.aadsasweb.org/

It is not necessary that an applicant complete the entire application at once. The applicant may save the application and work on it over a period of time. Once it is submitted, however, only minor changes can be made online. Check with AADSAS to determine what information can be edited after submission of the application.

Upon verification of an applicant’s primary application, the applicant will be provided with a link to complete the UMMC School of Dentistry’s supplemental application. The supplemental application fee is $50.

Application Timetable: There are no exceptions to the below listed deadlines.

- Earliest date of application: JUNE 1, 2016
- Application deadline:
  - AADSAS deadline: SEPTEMBER 23, 2016 (Application, all documentation and fees required by AADSAS must be received by AADSAS.)
  - UMMC School of Dentistry deadline: OCTOBER 21, 2016 (All application materials, including secondary application, fees, official transcripts and letters of recommendation, must be received.)
- Earliest date of acceptance notification: DECEMBER 1, 2016

DENTAL ADMISSION TEST (DAT) – Applicants for admission to the UMMC School of Dentistry must take the American Dental Association Dental Admission Test (DAT). The test must be scheduled to be taken by computer at Prometric Testing Centers. Information regarding the American Dental Association Dental Admission Test may be obtained from the pre-dental advisor in most colleges or from the American Dental Association, 211 East Chicago Avenue, Chicago, Illinois 60611. By following a well-planned schedule, the pre-dental student should be ready to take the test at the end of the second full year of college work; the DAT is generally taken by March of the third year of college work. DAT scores more than 3 years old are not accepted. Candidates seeking to retake the DAT must wait 90 days before a re-test is allowed.

COURSE REQUIREMENTS – The applicant must show credit for at least three years of college work, totaling not fewer than 90 successful semester hours (grade of “C” or better), completed in a regionally accredited United States or Canadian college or university.

In addition, all applicants must meet the following minimum requirements:

<table>
<thead>
<tr>
<th>Course</th>
<th>Minimum Hours</th>
<th>Notes</th>
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<tr>
<td>English</td>
<td>2 semesters / 3 quarters</td>
<td>(Must include laboratory)</td>
</tr>
<tr>
<td>Inorganic Chemistry</td>
<td>2 semesters / 3 quarters</td>
<td>(Must include laboratory)</td>
</tr>
<tr>
<td>Organic Chemistry</td>
<td>2 semesters / 3 quarters</td>
<td>(Must include laboratory)</td>
</tr>
<tr>
<td>Physics</td>
<td>2 semesters / 3 quarters</td>
<td>(Must include laboratory)</td>
</tr>
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</table>
Conditional Acceptance — The Admissions Committee has concerns when prerequisite courses have been taken ten (10) or more years ago. If a science course is being used for any course requirement (for any method) and was taken ten (10) or more years ago, it must be repeated.

Unacceptable Courses — None of the minimum 90 acceptable semester hours of collegiate course work listed or described or recommended above may be met by the following: correspondence courses; courses in physical training, military science, or dogmatic religion; courses in mathematics or science designed for non-science majors; or course credit granted without college-level testing and grade. A limited number of distance learning credits may be accepted for liberal arts electives; however, none will be accepted for required science and math courses. Courses taken outside science and math departments (courses numbers other than BIOL, CHEM, PHYS or MATH) are not acceptable as required courses.

Approved Elective Courses — It is recommended that the student develop proficiency in a specific area while in undergraduate school and acquire a background in the humanities and social sciences, consulting with a pre-dental/pre-health profession advisor concerning specific courses.

Credit Transferred From a Community College — A maximum of 65 semester hours of credit from a junior college may be applied toward admission. However, it is strongly recommended that as many required science courses as possible be completed at a senior college or university to improve chances for admission.

Transfer students admission with advanced standing — The University of Mississippi Medical Center School of Dentistry does not accept transfer students from other dental schools except under exceptional circumstances. The School of Dentistry’s Executive Committee reserves the right to determine those exceptional circumstances and the criteria and procedures related to a transfer student’s admission. Graduates of foreign dental schools are not eligible for advanced standing consideration.

Completion of Degrees — An applicant enrolled in a degree-granting program at any college or university is expected to complete the requirements for and earn that degree before enrollment in dental school. Unless prior approval has been granted by the Admissions Committee, this applies to both undergraduate and graduate degrees.

Conditional Acceptance — Acceptance to the dental school is conditional; the Admissions Committee may rescind an offer of acceptance at any time before matriculation if an applicant fails to maintain expectations upon which the acceptance was based. Examples include, but are not limited to, a significant decline in academic performance, failure to complete prerequisites or other course work and degrees in progress, patterns of unprofessional behavior and incidents discovered in a criminal background check.

Special Student
No student may enroll for courses in the School of Dentistry as a special part-time student without being admitted by the Admissions Committee and receiving approval from the Associate Dean for Academic Affairs to attend class(es).

Technical Standards for Admission
The Dean and faculty’s recommendation that a student be granted the DMD degree by the University of Mississippi Medical Center signifies that the recipient of that degree possesses the knowledge, skills and attitudes to provide care across a wide spectrum of dental health needs and to function effectively in varied clinical settings. The dental practitioner must exhibit a unique combination of scientific and health care knowledge, technical abilities, communication and interpersonal skills as well as professional attitudes and behaviors in order to deliver the dental health care that is required and expected of today’s dental professional.

The University of Mississippi School of Dentistry has a responsibility for the welfare of patients treated at the school and a responsibility to graduate the best possible practitioners. Therefore, the School of Dentistry maintains certain minimum technical standards for admission to the school. Applicants must possess a basic core of skills and abilities that will allow them to successfully complete the dental curriculum and benefit fully from their professional education. As an integral part of their education, students are required to provide treatment for patients who seek care at the School of Dentistry. The school has the responsibility of ensuring the safety of those patients. This includes the completion of treatment safely and within an acceptable amount of time.

It is the responsibility of the candidate for admission to review the technical standards for admissions.

Motor Skills: All applicants must be able to meet the following technical standards. Candidates must have sufficient motor function to conduct various diagnostic and treatment procedures; to manipulate dental instruments and handpieces. These behaviors require both gross and fine muscular movements and coordination, as well as sight, touch and manual dexterity and fully functioning wrists, hands, fingers and arms. Candidates must be able to ensure that basic life support emergency procedures, including CPR, can be performed on all patients; transfer and position disabled patients personally or with assistance from auxiliary personnel; position themselves in an appropriate sitting or standing position so as to render
dental care; position dental equipment including carts, stools and dental chair; operate hand or foot controls utilizing fine movements; operate high and low speed dental handpieces during dental treatment requiring controlled movements of less than one millimeter; utilize hand instrumentation including surgical instruments for dental procedures on hard and soft tissues; perform all necessary procedures in required educational exercises including activities in the preclinical laboratories; execute motor movements necessary to arrive at a diagnosis and treatment plan, and provide patient care including emergency treatment; perform motor functions to elicit information from patients or from simulations through palpation, auscultation, percussion and other diagnostic procedures utilizing instrument manipulation.

Sensory Skills: Candidates must have functional use of the senses of vision, hearing, touch and smell in order to observe and learn effectively in the classroom, laboratory and clinical settings and, ultimately, to provide oral health care in a practice setting. These sensory skills must be sufficient to allow the student to acquire information through physical, laboratory and clinical means; to visualize intraoral and extraoral structures; to observe a patient accurately both close at hand and at a distance; and to obtain information from written documents, films, slides and video. Candidates must be able to perform educational exercises, dental examinations, and treatment utilizing functions of vision (acuity, accommodation and adequate color differentiation), touch (tactile sense using direct and indirect palpation), hearing (distinguishing sounds of auscultation and percussion, and discerning audible signs of distress from a patient) and smell (enabling observation and discernment of normal and abnormal odoriferous conditions related to either the patient or environment) in order to correctly discriminate between normal and abnormal tissues or conditions during examination, diagnostic and treatment procedures; read charts, records, small print and handwritten notations; and interpret radiographs and other graphic images with and without assistive devices.

Communication Skills: Candidates must have sufficient fluency in the English language to be able to speak, understand, read and write so as to obtain information from texts and lectures; communicate concepts; perceive and describe patient behaviors and emotional states; communicate effectively and sensitively with patients and all members of the health care team both orally and in writing. Candidates must be able to discuss, explain and exchange information with the patient at a level necessary to develop a health history to address health problems, to arrive at diagnoses and treatment plans and to give direction before, during and after treatment; to retrieve information from texts and lectures; to communicate concepts on written and oral examinations and to other health care workers/providers; and to communicate effectively in spoken and written English in classroom, laboratory and clinical settings.

Cognitive Skills: Candidates must possess those cognitive skills necessary to problem solve in all educational and clinical settings, to accumulate, comprehend and apply information as part of learning and in the establishment of a diagnosis and treatment plan, and to provide oral health care. Candidates must demonstrate the ability to acquire, analyze, synthesize, integrate, measure, calculate and manage data and background knowledge in developing understanding and concepts, and to do so in educational and clinical settings; to perform these cognitive skills in a critical and logical problem solving format and to do so within a specific time limited framework; to comprehend three-dimensional and spatial relationships of structures; to make rational decisions regarding patient care; and to provide treatment within an acceptable time frame so as to insure safety of the patient.

Behavioral Skills: Candidates must demonstrate sufficient behavioral and social skills, professionalism and emotional health to successfully accomplish the responsibilities related to care of the dental patient and to perform to the fulfillment of the full range of academic and clinical duties of a student. Candidates must be able to manage patients with a wide variety of moods and do so in a tactful, congenial and compassionate manner so as to avoid alienation and antagonism; possess sufficient physical ability to meet the demands of ongoing, concurrent classroom, laboratory and clinical educational exercises; adapt to a changing environment, display flexibility and function appropriately in the face of those uncertainties inherent in dental education; possess emotional health sufficient to carry out tasks, have good judgment and behave in a professional, reliable, mature and responsible manner; exhibit appropriate motivation and a genuine interest in caring for others; exercise good judgment in prompt completion of responsibilities attendant to the educational process and to the diagnosis, treatment planning and care of patients; possess interpersonal skills and attributes of integrity, empathy, stability and punctuality to be able to function effectively as part of the dental health care team.

ACCEPTED APPLICANT INFORMATION

TEXTBOOKS, LABORATORY SUPPLIES AND CLINIC COATS – Students must purchase dental articulator, dentoform, laboratory coats and clinic coats and other required equipment and supplies as specified throughout the course of study. These items are required purchases through the Medical Center Bookstore. Electronic books will be required for each starting class. Those who have not purchased the school’s required electronic books, supplies and all instruments for any semester will not be permitted to begin classes for that semester. A designated laptop computer must also be purchased before students begin first-year classes. Other personally acquired laptop computers will not satisfy this requirement.

ACADEMIC REGULATIONS

Curriculum – The dental school administration reserves the right to make changes in curricula and regulations and required equipment and supplies when those changes are determined to be in the best interest of the students and the school.

Examinations – Examinations may be written, oral, practical, simulations, standardized patients or other means or combinations. The student may be excluded from an examination for failure to pay tuition or fees. Make-up examinations for failure of a course must have permission of the Student Evaluation and Promotion Committee (SEPC).

Grades –

1. The School of Dentistry employs a numerical grading system based on zero to 100.
2. A student must achieve a grade of 70 or more in each course. Students must satisfactorily complete all requirements stated for each course in the syllabus and all Clinical Practice guidelines in each Clinical Practice syllabus in order to become eligible for promotion.
3. If work is incomplete for reasons beyond a student’s control, a temporary grade of “Incomplete” is reported when grades are due. The “I” must be replaced with a final grade prior to the termination of the following semester.

4. If a course extends beyond the end of a semester, the SEPC and the relevant course director will notify students of unsatisfactory progress.

5. Transfer of acceptable course credit attained in programs other than as a student at the University of Mississippi School of Dentistry will be recorded as a “Transfer” grade on the official transcript.

6. All students will be allowed to view their final grades on the SAP – Student Connections software. Students may challenge grades within 30 days of issuance of final grades; otherwise, grades will stand as recorded.

7. The determination of class rank is made by using the grade point average, which is derived by:
   a. multiplying the grade in course by the clock hours of that course; and
   b. dividing these totals (grades x clock hours -of all courses) by total number of clock hours (of all courses, except remedial or repeat courses).

8. The determination of letter grade published grade point average is derived by:
   a. multiplying the numerical grade in course by the semester hours of that course; and
   b. dividing the totals in “a” by the total number of semester hours.

In order to be eligible for the Dean’s Honor List, a student must have attained: 1) an average of 85 or higher for the academic year; 2) must be in the top 20% of the class; 3) must have completed stated guidelines for the academic year; and 4) must have received all passing grades for the academic year.

Withdrawal – Students who are unable to return to school at the beginning of any semester or who must discontinue their work during the year for legitimate reasons ordinarily will be permitted to withdraw in good or satisfactory standing with approval of the Dean. Students who withdraw must complete School of Dentistry check out procedures as per the SOD Business Office. Failing to comply will result in no grades being recorded on the student’s record. Approved withdrawal, if completed on or before the last day specified in the academic calendar, will not be recorded on the student’s record. Withdrawals authorized after this date will be recorded as a “W” if student performance is satisfactory and as an “F” if the student performance is unsatisfactory at the time of withdrawal.

Students who have withdrawn in good standing must receive approval for readmission from the SEPC on the basis of their status at the time of withdrawal. Students who have been absent for more than one academic year, must apply to the Admissions Committee for readmission. This readmission application must be made before November 1 of the year prior of enrollment.

Leave of Absence – Leaves of absence are granted at the discretion of the Dean and will be for a period of up to one year.

Scholarship, Promotion, and Graduation – Student promotion depends on the satisfactory completion of each year's work and overall satisfactory performance. Promotions within the School of Dentistry are considered on the basis of recommendations by individual instructors, on departmental evaluations and the student’s total record.

Students in the School of Dentistry should be aware of the information in the course syllabi which details practices, procedures and provisions of the school pertaining to academic and clinical performance and related matters.

Listed below are the minimum acceptable standards of scholastic performance, promotion and graduation:

1. Scholastic performance and promotions, first, second, and third years:
   a. achieve a grade of 70 or more in each course and satisfactorily complete all requirements stated for each course in the syllabus and all Clinical Practice guidelines in each Clinical Practice syllabus and
   b. achieve an overall score of PASS on the National Dental Board Examination, Part I to be eligible for promotion to the third year.

2. Fourth-year eligibility requirements for the Doctor of Dental Medicine degree:
   a. achieve a grade of 70 or more in each course and satisfactorily complete all requirements stated for each course in the syllabus, including all Clinical Practice 675 guidelines in each Clinical Practice 675 syllabus
   b. register and take the National Dental Board Examination, Part II, during the academic graduating year.
   c. discharge all financial obligations to this school; and
   d. merit a recommendation from the SEPC to the Dean for eligibility to receive the Doctor of Dental Medicine degree. The School and University make no actual or implied guarantee that any student completing most or all of the required work will be granted a dental degree. Factors other than academic achievement are and may be used to determine the eligibility for a student to be granted a dental degree.

Due Process – Due process for students is defined in the procedures identified in the Student Handbook.

TUITION AND REQUIRED FEES

DOCTOR OF DENTAL MEDICINE

The tuition rates for the 2015-2016 academic year are $25,525 for Mississippi residents, which includes laboratory and library usage. This amount is divided into either two or three semester charges, depending on the individual course calendars for each year of dental school.

Note: All amounts are subject to change pending information from the Institutions of Higher Learning (IHL). Please contact the Department of Student Accounting at (601) 984-1060 for more information.

Computers – Entering dental students are required to buy the laptop computer specified by the School of Dentistry with factory configured software and hardware compatible with the Medical Center’s wireless computer network. Without this laptop, students will not be eligible to begin classes. Students entering dental school are expected to possess basic computer competencies. These include, but are not limited
Materials/Supplies – Dental students are provided numerous types of dental materials/supplies during their dental education and most items are included as part of their tuition and fees. However, additional educational supplies above the normal threshold may be purchased on an individual basis from the preclinical storeroom. Students will be charged for any supplies that exceed the normal allowance. Students must purchase dental articulator, dentoform, laboratory coats and clinic coats as specified throughout the course of study. These items are required purchases through the Medical Center bookstore. Electronic books will be required for each starting class.

Those who have not purchased the school’s required electronic books, supplies and all instruments for any semester will not be permitted to begin classes for that semester.

Note: Requirements for computers, materials, and supplies are subject to change, and any changes will be communicated to students prior to their taking effect.

LOANS

Dental Alumni Student Emergency Loan Fund provides small, low-interest loans to students repayable in 90 days.

Dental Memorial Loan Fund is made possible by various memorial funds contributed to the School of Dentistry. It is awarded to a Mississippi resident based on academic potential and potential.

State of Mississippi Dental Education Loan Fund, approved by the Legislature of the State of Mississippi in 1975, allows under the program for tuition to be awarded each academic year, not to exceed a total of four academic years. The applicant must be a resident of Mississippi, must agree to specialize in general dentistry and agree to practice general dentistry immediately upon graduation in a critical need area of the state. Interested students may call: Mississippi Office of State Student Financial Aid, (601) 432-6997, toll-free in Mississippi 1-800-327-2980, or visit the website to complete the online application.

George C. and Laura B. McKinstry Scholarship/Loan Fund was established in 1973 by Dr. McKinstry in memory of his father and mother to provide low-interest loans to needy students in the School of Dentistry.

Luper Dental Student Loan Fund provides low-interest loans to students who demonstrate financial need as determined by the Office of Student Financial Aid and meet selection criteria of the School of Dentistry Scholarship Committee.

SCHOLARSHIPS

Ottilie Schillig Memorial Scholarship was established in 1984 through a gift to the Medical Center from the Schillig Trust. Miss Schillig, a native of Port Gibson, was a noted concert singer. At least one scholarship is available each year to the School of Dentistry. All recipients must be in good academic standing and preference is given to those students who intend to practice in smaller Mississippi towns and communities.

Summer Foundation Scholarship Fund was established in 1977 by Mrs. E.H. Sumners of Eupora, MS, to provide scholarship assistance for students from Webster, Montgomery, Attala, Carroll and Choctaw counties who are enrolled at the University of Mississippi Medical Center.

Mississippi Health Professional Loan/Scholarship Program was established to provide loans to students in medicine, dentistry, nursing, physical therapy or occupational therapy who are Mississippi residents. The loan offers a cancellation clause as an inducement to practice health care with or at certain Mississippi hospitals, state health clinics or certain other public health institutions. The loan to scholarship conversion is one year’s loan cancellation for one year’s service.

Dean’s African-American Scholarship was established in 2001. Selection will be made by the School of Dentistry Scholarship Committee, and prospective recipients must have a GPA of at least 3.0. Preference will be given to Mississippi residents. If the recipient remains in good academic standing, the scholarship will be renewed for each year the recipient is in dental school. The committee will recommend candidates, with the final selection made by the Dean.

Robert M. Hearin Support Foundation Minority Scholarships, established by the Robert M. Hearin Support Foundation, are awarded to first-year African-American dental students who are Mississippi residents. Recipients are selected by the School of Dentistry Scholarship Committee. Selection is based on prior academic achievement, the student’s potential for success in dentistry, and accepted institutional financial aid guidelines. The scholarship is renewable each year as long as the recipient remains in good academic standing. Recipients must commit to reside and practice dentistry in Mississippi for a period of five years.

Robert M. Hearin Support Foundation Best and Brightest Scholarships, established by the Robert M. Hearin Support Foundation, are awarded to two first year students. Recipients are selected by the School of Dentistry Scholarship Committee. Selection is based on academic metrics. The scholarship is renewable each year as long as funds are available and the student maintains a set academic average with no ethical violations. Recipients must commit to practice dentistry in Mississippi for a period of five year.

Pierre Fauchard Academy Dental Student Scholarship Award is awarded to a D3 student. This individual has demonstrated the greatest potential for developing into an outstanding leader in the dental profession. The student need not have the highest grades nor be the most technically proficient, but one who has leadership qualities in the university, dental school, community or other worthy activity. The qualities of integrity, imagination, initiative and communicative skills enter into the selection process as well as the recipient’s need for financial aid.

Dr. James W. Rice and Grace Vaughan Rice Scholarship in Dentistry is established as an academic scholarship under accepted guidelines of the Department of Financial Aid at the University of Mississippi Medical School. The recipient should be a senior student with the highest cumulative academic average over the first three years of dental school from among those students otherwise eligible for the award. The recipient should have financial need as determined by the School of Dentistry in consultation with the Office of Financial Aid. The recipient must have demonstrated the ability to relate to patients, staff and faculty in a positive, constructive manner. The recipient must be of good moral character and exhibit the highest ethical and professional standards.
James T. Baird Memorial Scholarship Fund was established in 2000 through a gift to the Medical Center. This is a one-time scholarship given to a first-year dental student provided that funds are available. All recipients must be in good academic standing, and preference is given to those students who intend to practice in smaller Mississippi towns and communities.

L.W. Brock Scholarship is funded by an endowment. Five percent (5%) of the earnings will be used to fund scholarships. A recipient must be in the top 1/3 of the class and demonstrate financial need. A recipient will receive no less than $500. This is not a renewable scholarship, as annual earnings cannot be predicted.

Pearl & Otis Walters Scholarship Fund is funded by endowment earnings. The recipient is chosen by the School of Dentistry Scholarship Committee and the selection is based on academic ability, perceived service and contribution to the profession in the state, character and intention to practice in a smaller community. These funds continue as long as the student remains in satisfactory academic standing.

Danny Niolet Scholarship was established in 2013 by the Danny Niolet family and is designated for a first-year dental student who is entering dental school as a second career with special consideration given to students from the Mississippi Gulf Coast. This scholarship fund will be funded by endowment earnings.

Helen Reeves Turner, MD, PhD, Scholarship was established in 2013 and is awarded each year to a deserving student from one of the Medical Center Schools. The recipient of this award, selected by the dean or his designee, exemplifies Dr. Turner’s outstanding attributes of leadership, education and service.

GIVING TO THE UNIVERSITY OF MISSISSIPPI SCHOOL OF DENTISTRY
Alumni and friends of the University of Mississippi School of Dentistry are encouraged to make gifts in support of educational, clinical and research efforts. These gifts may be unrestricted and used in the school’s areas of greatest need, or restricted to specific departments or programs. The gifts may also be given now or deferred until a future time agreed upon by the donor and the School of Dentistry. The school recognizes donors at various levels of annual giving as well as offering special recognition to those who have achieved extraordinary lifetime giving levels.

AWARDS and HONORS

Academy of Dental Materials – This award is presented to the senior who has demonstrated excellence in the field of dental materials science.

Academy of Dentistry for Persons with Disabilities – This award is presented to the student or students whose projects, achievements and attitudes have demonstrated a sincere interest and concern for the dental needs of persons with disabilities and special patients while an undergraduate dental student.

Academy of General Dentistry Award – This award, sponsored by the Mississippi Academy of General Dentistry, is presented to the senior who exhibits the greatest potential for becoming an outstanding general practitioner.

Academy of Operative Dentistry – This award is presented to the senior who has demonstrated outstanding achievement in operative dentistry.

Academy of Osseointegration – This award is presented to the senior who is recognized as an outstanding dental student in implant dentistry.

ADA/Dentsply Student Clinician Research Program Award – This award is presented to recognize a deserving student for outstanding accomplishment and achievement in the field of research.

Jeffery Alexander Award for Academic Achievement in Pre-Clinical Sciences – This award is presented to a first-year student who has demonstrated academic achievement in the pre-clinical sciences.

Alliance of the Mississippi Dental Association Award – This award is presented to a third-year dental student who has demonstrated initiative toward community dental health.

American Academy of Implant Dentistry – This award is presented to the student who demonstrates the most interest, academically and clinically, in implant dentistry.

American Academy of Oral and Maxillofacial Pathology – This award is presented to the senior dental student who has demonstrated exemplary aptitude and achievement in Oral and Maxillofacial Pathology.

American Academy of Oral and Maxillofacial Radiology – This award is presented to a senior who has demonstrated special interest and accomplishment in Oral and Maxillofacial Radiology.

American Academy of Oral Medicine – This award is presented to the senior who has demonstrated proficiency in the clinical management of medically complex patients, the diagnosis and non-surgical management of medically-related conditions of the oral and maxillofacial regions, and promise, academic achievement and interest in the discipline of oral medicine.

American Academy of Pediatric Dentistry – This award is presented to the senior who has been judged by the faculty to be the most outstanding in the field of dentistry for children.

American Academy of Periodontology – This award is presented to the senior who has shown the highest level of academic and clinical achievement related to Periodontics.

American Association of Endodontists – This award is presented to the senior who has shown outstanding interest and achievement in Endodontics.

American Association of Oral and Maxillofacial Surgeons, Dental Student Award – This award is presented to the senior who has demonstrated outstanding performance in undergraduate study and clinical training in the area of oral and maxillofacial surgery and anesthesiology.
American Association of Oral and Maxillofacial Surgeons, Dental Implant Student Award – This award is presented to the senior who has demonstrated outstanding performance in undergraduate study and clinical training in the area of dental implant placement.

American Association of Oral Biologists – This award is presented to the senior dental student who has made significant contributions to the advancement of oral biology and has demonstrated the potential for further achievement in this field.

American Association of Orthodontists – This award is presented to the senior dental student who has demonstrated exceptional interest in the development of the oro-facial complex.

American Association of Public Health Dentistry – This award is presented to the senior who has demonstrated special interest and achievement in community dentistry and dental public health.

American College of Dentists, Mississippi Section, Student Award – This award is presented to the dental student showing outstanding performance and professionalism while in dental school. The recipient of this award is selected by the UMMC American College of Dentists faculty.

American College of Prosthodontists Achievement Award – This award is presented to a graduating dental student who has excelled in the area of Prosthodontics.

ASDA Award of Excellence – This award honors the spirit of volunteerism and recognizes student participation or leadership in service to their school and local community.

Eleanor Bushee American Association of Women Dentists Award – This award is presented to a senior dental student who is a member of the American Association of Women Dentists and who has demonstrated outstanding leadership and academic excellence.

Dr. C Wayne Caswell Pankey Philosophy Award - This award is presented by the family and friends of Dr. C. Wayne Caswell to a student who demonstrates outstanding skills in the area of occlusion and approaches life with a positive mental attitude.

Class Marshal for Commencement – The selection as class marshal for commencement is based on commitment and service to the senior class, school and university.

Community Preventive Dentistry Award – This award is presented by the Department of Periodontics and Preventive Sciences to the senior who has shown outstanding achievement and potential in preventive dentistry.

Dean’s Scholastic Achievement Award – This award is presented by the Dental Alumni Chapter of the University of Mississippi Alumni Association to the senior in the senior class who has the highest cumulative academic average for the first three years of dental school.

Delta Dental Student Leadership Award – This award is presented to a senior who has demonstrated a desire to serve the community and will be a strong leader in dentistry and in their community.

Dental Physiology Award – This award is presented to the dental student who has demonstrated outstanding scholastic performance in the dental physiology course.

Dentsply Merit Award in Removable Prosthodontics – This award is presented to the senior who has demonstrated exceptional ability in the field of removable prosthodontics.

Robert R. Finch Oral Pathology Award – This award, initiated by the family of the late Robert R. Finch, DDS, professor of oral pathology and first assistant dean for educational programs, is presented to the senior who has shown outstanding interest, accomplishment and promise in the field of oral pathology.

Hiram A. Gatewood Sr. Memorial Award – This award is given to a third-year dental student who possesses the academic, clinical, leadership, and moral qualities necessary in the practice of general dentistry. Preference will be given to the student who is from or who plans to practice in a small-town setting.

Bradford A. Gordon Memorial Award – This award established by the Class of 1988 and sponsored by the Dental Alumni Chapter of the University of Mississippi Alumni Association, honors the late Brad A. Gordon, DMD, a 1985 graduate of the School of Dentistry. The award is presented to the senior student who, as judged by the senior class, typifies the traits most associated with Dr. Gordon: determination, perseverance and an overwhelming will to succeed even in the face of adversity. The name of the recipient will be engraved on a plaque which hangs in the School of Dentistry.

HANAU Best of the Best Prosthodontic Award – This award is presented to the graduating senior who has excelled in the study and clinical application of prosthodontics.

International College of Dentists Student Leadership Award – This award is presented to the senior who has demonstrated leadership in dental schools student government, excellence in academics and has demonstrated the potential to continue leadership roles after graduation.

International College of Oral Implantologists – This award is presented to the senior dental student who displays the greatest interest and commitment to implantology/implant dentistry.

Lynn Frances Johnston Memorial Award – This award, established by the class of 1983, honors the late Lynn Frances Johnston, D.M.D., a 1983 graduate of the UMMC School of Dentistry. The award is presented to a first-year dental student based on academic achievement, ethical standards and professional behavior.

Dr. Zandra Dorr Klein Memorial Award – This award was established in 2003 by the family and friends of Dr. Zandra Dorr Klein. The award goes to a deserving female third-year student who has shown outstanding academic accomplishment and has performed at a high level in clinical periodontics.

June A. Larsen Memorial Award in Clinical Oral Radiology – This award was initiated by the Employee of the Quarter Committee and is supported by the family of the late June A. Larsen, chief oral radiographic technician and first employee of the quarter at the UMMC School of Dentistry. The award is presented to a third-year dental student who has demonstrated outstanding compassion and technical skills in clinical Oral Radiology.
Mississippi Dental Association Award – This award is presented to the senior who demonstrates strong commitment to the goals of dentistry, leads in the area of volunteering for dental related activities, and demonstrates strong personal goals to help further the goals of the dental profession in Mississippi while attending the University of Mississippi School of Dentistry.

Pierre Fauchard Academy Senior Student Award – This award is presented to a deserving senior who has exhibited leadership and through accomplishments, has demonstrated dedication to the advancement of dental literature, and has excelled academically and clinically in dental school.

Quintessence Award for Clinical Achievement in Periodontics – This award is presented to a senior dental student to recognize outstanding achievement in dental studies in the area of periodontics.

Quintessence Award for Clinical Achievement in Restorative Dentistry – This award is presented to the senior to recognize outstanding clinical achievement in restorative care.

Quintessence Publishing Co. Award for Research Achievement – This award is presented to a senior dental student for outstanding achievement in research.

J. Julius Ratliff Award of the MS Association of Orthodontists – This award, sponsored by the MS Association of Orthodontists, is presented to the senior with the highest academic average who has been accepted into an advanced education program in orthodontics.

Regions Bank Award – This award is presented to a Mississippi resident based on academic excellence and overall performance.

Restorative Dentistry Award – This award is presented to a fourth-year dental student who has demonstrated outstanding skills in providing comprehensive restorative care.

Southeastern Academy of Prosthodontics Award – This award is presented to the senior who has demonstrated outstanding achievement in the area of prosthodontics.

Dr. Chris Spraberry Award for Pre-Clinical Excellence: This award is presented to a third-year student who has demonstrated outstanding achievement and excellence in pre-clinical sciences leading to the practice of general dentistry.

Trustmark Bank Award – This award is presented to the senior dental student demonstrating great interest and outstanding performance in preventive and health maintenance management.

Omicron Kappa Upsilon Honor Dental Society – Seniors are selected for this national honor dental society on the basis of high scholastic achievement, exemplary traits of character and qualities for professional growth and achievement.

Phi Kappa Phi Honor Society – Members of this national scholastic honor society are selected on the basis of academic achievement.

William S. Kramer Award of Excellence – This award is presented by the Supreme Chapter of Omicron Kappa Upsilon Honor Dental Society in honor of William S. Kramer, DDS, former president and secretary-treasurer of the Supreme Chapter of OKU. The award recognizes a junior student who has demonstrated scholarship, character and the potential promise for advancement of dentistry and service to humanity.

Brian D. Stone Memorial Award – This award, sponsored by Dental Lifeline Network and established by Drs. Joy and Justin Stone, is presented to a senior dental student who demonstrated a commitment to help people with special needs or as a community volunteer and has excelled in special needs patient care

DEGREES

DOCTOR OF DENTAL MEDICINE DEGREE

The degree of Doctor of Dental Medicine is conferred upon candidates of good moral character who have properly fulfilled all academic requirements of the School of Dentistry’s curriculum; and who have discharged all financial obligations to this school.

The diploma is awarded summa cum laude, Wallace V. Mann Jr. Award, to the graduate who ranks first in the class in academic achievement; magna cum laude to the second ranking graduate; and cum laude to the graduates who rank third and fourth.

THE CURRICULUM IN DENTISTRY

The curriculum consists of four academic years. Each year contains two semesters (fall and spring) of approximately 18 weeks each; additionally, the third year and the fourth year have summer programs of approximately ten weeks. Because of an ongoing evaluation by the Curriculum Committee, clock hours and placement of courses may be different from that listed in the following distribution of instruction by clock hours.

DISTRIBUTION OF INSTRUCTION BY SEMESTER HOURS

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Fall</th>
<th>Spring</th>
<th>Total</th>
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<tr>
<td>DENT 604 Biochemistry</td>
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<td>7</td>
</tr>
<tr>
<td>DENT 623-1 Clinical Problem Solving I</td>
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<td>6</td>
</tr>
<tr>
<td>DENT 611-1 Service Learning and Community Oral Health</td>
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<td>3</td>
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<tr>
<td>DENT 616-1A Dental Caries I-Amalgam (Lec)</td>
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<tr>
<td>DENT 616-1B Dental Caries II-Amalgam (Lab)</td>
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<td>7</td>
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<tr>
<td>DENT 620-1A Dental Morphology and Occlusion (Lec)</td>
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<td>-</td>
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<td>Neuroanatomy</td>
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**SECOND YEAR**

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**THIRD YEAR**

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
### COURSES OF INSTRUCTION

**FIRST YEAR**

**DENT 600A. Human Gross Anatomy.** The lectures explain hard-to-understand topics, clinical correlations to show the value of anatomy to clinical medicine. Students are provided with PowerPoint slides in advance to preview the regions that to be studied on that day. Pre-lab discussions are also presented to facilitate the dissection. (Lecture) (5 semester hours)

**DENT 600B. Human Gross Anatomy.** This is a hands-on exploratory discovery course based on a complete dissection of the human body. Human cadaver, skeletal and cross-sectional anatomical materials are provided for dissection and study. The students will be responsible for the complete dissection of specific regions. (Laboratory) (7 semester hours)

**DENT 601A. Human Micro Anatomy.** This didactic course consists of (1) an in-depth structural, functional and developmental survey of cells, tissues and organs; and (2) an analysis of the basic concepts of developmental anatomy of oral and facial structures. Clinical correlations are included where appropriate. Furthermore, this course provides a basis for understanding other subject areas, including head and neck portion of Dental Gross Anatomy, physiology, pathology and the clinical dental sciences. (Lecture) (4 semester hours)

**DENT 601B. Human Micro Anatomy.** This hands-on microscopic course consists of (1) an in-depth light and electron microscopic study of cells, tissues and organs; and (2) an intensive modular directed study of the microscopic composition and development of oral and facial structures. Clinical correlations are included where appropriate. Furthermore, this course provides a basis for understanding other subject areas, including head and neck portion of Dental Gross Anatomy, physiology, pathology and the clinical dental sciences. (Laboratory) (4 semester hours)

**DENT 604. Biochemistry.** Fundamental course in biochemistry, including chemistry of amino acids and proteins, nucleic acids, carbohydrates and lipids, enzymology, metabolism and metabolic regulation, membrane structure and function, oxidative phosphorylation, hormonal control mechanisms, molecular biology and protein synthesis. This course also includes a number of lectures on oral biology and dental biochemistry, including blood clotting, dental caries, connective tissue, and calcium and phosphorous metabolism. (Lecture) (7 semester hours)
DENT 607-1. Basic Life Support I. This unit provides in-depth knowledge of basic life support, including recognition of signs and symptoms of cardiopulmonary emergencies and principles and techniques of cardiopulmonary resuscitation. Instruction includes lectures, slide and film presentations, and demonstration-practice on resuscitation training manikins. (Lecture) (1 semester hour)

DENT 610-1. Periodontal Diseases Introduction & Concepts. This is the introductory course in the periodontal curriculum. It is designed to help students gain an understanding of periodontal health and health maintenance as well as the underlying disease processes that occur when health deteriorates. Key concepts of prevention, examination, and diagnosis will be covered. Additionally, experimental learning will be incorporated where the students will have simulated learning on a dentaform and then take these skills and treat actual patients as part of a rotation into the periodontics clinic. (Lecture) (3 semester hours)

DENT 611-1. Service Learning I. This unit will consist of a one-week field experience at selected sites throughout Mississippi to prepare students to assume their role in the community. Additional units are offered in each of the subsequent years with an elective opportunity offered in the fourth year. Students are evaluated on ability to design, implement and evaluate a health education project. (Lecture) (3 semester hours)

DENT 612. Neuroanatomy. This course explores both the gross external and internal structural entities that comprise the human nervous system with an emphasis on relevance to dental practice. Through a combination of: (1) didactic; (2) small group active learning sessions; and (3) self-guided lab modules, the student gains an appreciation for normal nervous system anatomy. Structure correlations that yoke internal nervous system structures with sensory and motor systems are presented. Special emphasis is placed on understanding the relationship of cranial nerve composition and distribution that register sensations arising from the face and oral cavity, including dental structures, as well as central connections of the cranial nerves encountered in the dental practice. Clinical correlations are included where appropriate. Furthermore, this course provides a basis for understanding other subject areas, including head and neck portion of Dental Gross Anatomy, physiology, pathology and the clinical dental sciences. (Lecture) (2 semester hours)

DENT 614-1. Pain, Fear and Anxiety Control I. The perception of pain, the psychology of fear and anxiety and their impact on dentistry are presented. Alliation and control of pain are presented in the context of alternative methods based on the individual patient. Basic methods taught are behavioral and pharmacological with emphasis on local anesthetics. Local anesthesia techniques are taught using lecture, videotapes and demonstrations. (Lecture) (2 semester hours)

DENT 616-1A. Dental Caries I. This is a lecture course introducing operative dentistry. Detection and resolution of dental caries by conservative operative dentistry methods are introduced. The theory of operative dentistry, principles of cavity preparation, instruments and restorative materials are covered in this course. (Lecture) (4 semester hours)

DENT 616-1B. Dental Caries I. This is a laboratory portion introducing operative dentistry. Students are taught how to utilize the dental operatory and equipment. The course includes the use of artificial teeth to develop essential psychomotor skills necessary for the restoration of teeth. Students prepare and restore with dental amalgam, composite resins, glass ionomer, and IRM various class I, II, III, V restorations in pre-clinic. (Laboratory) (7 semester hours)

DENT 617-1. Introduction Biomedical Literature Skills Case-Based Dentistry. Assist students in using the biomedical literature to identify the best practice standards for treating patients by analyzing a case study, developing searchable clinical questions and locating evidence-based information. Special emphasis is placed on the services and materials available at the Medical Center. (Lecture) (1 semester hour)

DENT 619. Materials Science. Fundamental principles which relate composition, structure and processing of metals, polymers, ceramics and composites to their properties and uses are presented. In addition, biocompatibility and safety-related issues for use of dental materials are discussed. Selected topics in dental materials properties and processing are also introduced. The course builds on basic chemistry and physics courses to prepare the students for topics in dental materials which will be presented in other preclinical courses within the curriculum. (Lecture) (3 semester hours)

DENT 620-1A. Dental Morphology and Occlusion. This lecture course introduces the student to dental terminology and presents a detailed study of the morphological characteristics of the permanent and primary teeth. This study also includes the intra-arch relationships of the teeth and their effects on the health of the dental supporting structures. A study of the eruption sequence of the primary and permanent teeth as well as a study of pulp morphology for each permanent tooth is presented. (Lecture) (5 semester hours)

DENT 620-1B. Dental Morphology and Occlusion. This laboratory course introduces students to the reproduction in wax of accurate casts of teeth for the purpose of determining their morphology and occlusion. (Laboratory) (4 semester hours)

DENT 622-1. Methods in Problem-Oriented Dentistry I. This course introduces the students to the important concept of “problem-oriented dentistry” and its relevance and application to both patient care and dental education. The course is presented in formal lectures, group seminars and clinic sessions. Methods are presented for: (1) communicating with the patient; (2) obtaining a complete health history; (3) determining the vital signs; (4) performing extraoral and intraoral examinations; and (5) taking a comprehensive diagnostic radiographic survey. This course also presents the general principles of dental radiology and discusses the medically compromised dental patient. The intent of this course is to expose the students to the problem-oriented dental record, the procedures and techniques to collect the patients’ database, and an overview of the activities in the different dentists’ office. (Lecture) (6 semester hours)

DENT 622-2. Methods in Problem-Orient Dentistry II. Rotation through the Oral Radiology Clinic for purposes of making, processing, mounting and interpreting oral radiographs. (Lecture) (1 semester hour)

DENT 623-1. Clinical Problem Solving I. Students are required to attend Grand Rounds presentations and to participate in scheduled CPS team meetings and clinical sessions. The student assists and observes an assigned D-3 student or other team member providing patient care and where the student becomes familiar with team patient care, the problem-oriented dental record, departmental clinical protocols and chairside assisting. Grand Rounds presentations and CPS team meetings grades are recorded separately, and each must have a passing grade in order to pass the CPS course. (Lecture) (6 semester hours)

DENT 625. Physiology. This course is designed to provide the student with knowledge of the basic functions of the cells, tissues, organs and organ systems, and how they interrelate to accomplish the many and diverse functions of the human body. (Lecture) (8 semester hours)
DENT 641. Microbiology. Basic concepts in microbiology and immunology are presented and correlated with disease processes having a bacterial, viral, mycotic or parasitic etiology. Special emphasis is given to diseases of importance in dental medicine. The course includes lectures, laboratory, demonstrations and examinations. (Lecture) (6 semester hours)

DENT 642-1. Introduction to Dental Ethics. The introductory course in dental ethics is designed to allow students the opportunity to explore societal needs and professional obligations to ethical behavior. This course prepares the student for beginning the journey of a health care professional and provides foundation knowledge for the more advanced third-year course. (Lecture) (1 semester hour)

DENT 647. Evidence Based Dentistry. The purpose of this course is to provide the student with an understanding of what constitutes good research in an effort to promote evidence-based dentistry (EDB). Being able to read and evaluate the current literature is an important component in EBD. The main objective of this course is to develop the ability to weigh the relative merits of different types of research. Specific goals are: 1) to develop the ability to properly evaluate the evidence-based literature to aid in developing best practices for the dental profession; 2) to develop the knowledge of the basic tools and concepts used in the practice of research; 3) to understand the importance of research study design; and 4) to recognize the appropriate data analysis for the major research designs. (Lecture) (3 semester hours)

SECOND YEAR

DENT 606-1. Oral Lesions I. This course is designed to introduce dental students to Oral and Maxillofacial Pathology, the study of disease processes that affect oral and paraoral structures. The relationship between embryologic development of the head and neck and developmental disorders, reactive responses to physical and chemical injury and sequelae of immunologic and infectious diseases are featured as well as oral cancer and oral manifestations of systemic disorders. Clinical, radiographic and histopathologic characteristics of disease will be presented in a discussion format to help the student build a foundation for future clinical practice. (Lecture) (3 semester hours)

DENT 610-2. Periodontal Diseases Non-Surgical Therapies. This course will deal with periodontal decision-making and non-surgical therapies. It will prepare students for the clinic and for management of mild to moderate cases of periodontal diseases. Preventive and health-directing approaches will be emphasized. Students will also be introduced to critical analysis of important journal articles. Case presentations will predominate the educational offerings. The course format will encompass lecture, workshops and small group discussions. Active participation in the Periodontics clinic, when assigned on Tuesday morning, will provide an essential learning component of the course whereby students gain first-hand experiences in patient examination, diagnosis, planning and patient care that supplement didactic teachings. (Lecture) (4 semester hours)

DENT 611-2. Service Learning II. See 611 for course description, first year. (Lecture) (3 semester hours)

DENT 616-2A. Esthetic Problems I. This course is a continuation of Dental Caries IA. This lecture course is a multidiscipline approach to cosmetic dentistry, including philosophy, esthetic problems diagnosis and treatment planning, adhesive materials, whitening, anterior and posterior composite restorations, tooth alignment, jaw relationships and dental photography. (Lecture) (2 semester hours)

DENT 616-2B. Esthetic Problems I. This course is a continuation of Dental Caries IB. This laboratory course includes fabrication of whitening trays, esthetic direct composite restorations on dentoform teeth, utilization of esthetic proportions in building teeth, color, smile analysis, and composite materials testing. (Laboratory) (3 semester hours)

DENT 616-3A. Dental Caries III - Indirect Restorations. This course is the lecture portion that introduces the student to the preparation and restoration of teeth with pin-retained complex amalgam restorations and single-unit indirect metal crowns. This lecture portion covers all elements of preparation design and material selection for these type restorations. (Lecture) (2 semester hours)

DENT 616-3B. Dental Caries III - Indirect Restorations. This course is the laboratory portion that introduces the student to the hands-on preparation and fabrication of pin-retained complex restorations as well as fabrication of multiple single-unit indirect metal crowns. Fabrication of acrylic temporaries associated with the metal crowns are also introduced. (Laboratory) (5 semester hours)

DENT 616-4A. Preclinical Pediatric Dentistry. This course is a didactic lecture course with an associated laboratory. Lectures focus on the problems associated with dental caries and their sequelae in the child patient, and also present material needed to diagnose and treat the child patient. Some lectures present specific techniques to be performed in the laboratory, and others present associated topics. (Lecture) (2 semester hours)

DENT 616-4B. Preclinical Pediatric Dentistry. In the laboratory, students are asked to perform basic restorative procedures on a pediatric typodont. There are daily projects to be turned in as well as a laboratory practical exam. (Laboratory) (2 semester hours)

DENT 616-5A. Indirect Esthetic Restoration & Digital Imaging. The course is an introduction to esthetic preparation guidelines for indirect restorations using CAD/CAM technologies. (Lecture) (1 semester hour)

DENT 616-5B. Indirect Esthetic Restoration & Digital Imaging. The course is an introduction to esthetic preparation and fabrication techniques for indirect restorations using CAD/CAM technologies. (Laboratory) (2 semester hours)

DENT 618-1A. Preclinical Complete Denture Prosthodontics. The etiology of edentulism is presented along with anatomic, physiologic and socio-economic implications which affect treatment of the complete denture patient. Discussion of clinical techniques and demonstrations of clinical steps are viewed in video segments. This is to aid the student in understanding the overall process in construction of complete dentures. (Lecture) (2 semester hours)

DENT 618-1B. Preclinical Complete Denture Prosthodontics. In this laboratory course, students get experience fabricating custom impression trays for impression making, record bases and occlusion rims and subsequently mounting casts and setting and arranging several different occlusal schemes for complete denture fabrication. (Laboratory) (6 semester hours)

DENT 618-2A. Preclinical Fixed Prosthodontics. This is a preclinical course where students read information on tooth preparations for full coverage crowns and are evaluated by a written test. (Lecture) (2 semester hours)

DENT 618-2B. Preclinical Fixed Prosthodontics. This is a preclinical course where students do tooth preparations for full coverage metal-ceramic and all-ceramic restorations on typodont teeth. (Laboratory) (5 semester hours)

DENT 618-3A. Preclinical Removable Partial Denture Prosthodontics. This is a lecture course in which problems of the partially edentulous patient are reviewed. Components of removable partial dentures are learned. Theory of removable partial denture design and
biomechanical considerations are discussed and designs are completed for the different types of partially edentulous situations. (Lecture) (2 semester hours)

**DENT 618-3B. Preclinical Removable Partial Denture.** This is a laboratory course whereby students practice preliminary and final impression making, fabricating of special trays for final impressions of the partially edentulous patient, wrought wire clasp bending and fabrication of partially edentulous record bases and occlusion rims. Practical experience is obtained in rest seat preparation exercises on a simulated patient in the SIM LAB under clinical conditions. (Laboratory) (3 semester hours)

**DENT 623-2. Clinical Problem Solving II.** Students are required to attend Grand Rounds presentations and participate in scheduled CPS team meetings and clinical sessions. An in-depth knowledge of the patient admissions process is acquired. Four-handed dentistry techniques with the student as chairside dental assistant are emphasized. Grand Rounds presentations and CPS team meetings grades are recorded separately, and each must have a passing grade in order to pass the CPS course. (Lecture) (11 semester hour)

**DENT 626. Pharmacology.** Students are introduced to the principles underlying the use of pharmacological agents in dental practice. Concepts related to pharmacokinetics, drug-receptor interactions, drug interactions and reversion of pathological states to physiological states with drugs are covered. In addition, the mechanisms of drug action, therapeutic effects, side-effects, toxicities and clinical applications of various commonly used drugs and drug classes are presented through a combination of lectures and clinical correlations. (Lecture) (6 semester hours)

**DENT 629. Behavioral Disorders I.** This course focuses on behavioral dentistry and as such deals with theoretical and applied information drawn from psychology, sociology, counseling and other fields of human behavior with emphasis on practical implications for dental practice. Topics include stress and stress management, motivation, compliance, and preventive behavior, origin and treatment of dental fears, substance abuse, communication skills and patient management and special care of the disabled patient. (Lecture) (1 semester hour)

**DENT 630-1A. Pulpal Disorders I - Endodontics.** A study of the dental pulp in health and disease. Management of pulpal disorders and contributing factors are considered. Techniques/materials required for resolution of pulpal disorders are studied in-depth. (Lecture) (3 semester hours)

**DENT 630-1B. Pulpal Disorders I - Endodontics.** Endodontic treatment is performed on extracted teeth in the Simulation Lab to prepare students for clinical treatment. Techniques, materials and procedures closely follow the protocol utilized in the Endodontic clinic. (Laboratory) (5 semester hours)

**DENT 637. Pathology.** This course provides background in general and systemic pathology. Included are abnormalities in cell growth and function, including neoplasms, genetic, nutritional and metabolic factors in disease, circulatory disorders, inflammation and repair, immunity and allergy, infection and infectious diseases, and pathology specific to organ systems. Examples of specific histologic material and color transparencies pertinent to lectures and study of autopsy specimens are presented. (Lecture) (5 semester hours)

**DENT 639-1. Essentials of Oral-Maxillofacial Surgery.** Fundamentals of diagnosis, evaluation and treatment planning of patients requiring oral surgery are presented. Pharmacological and clinical bases of local anesthesia and related drugs are stressed. Techniques of anesthetic administration are demonstrated and practiced. Management of infection, removal of teeth and roots, alveoplasty, cysts, complications, accidents and post-operative care are discussed and demonstrated. (Lecture) (3 semester hours)

**DENT 650-11. PsychoMotor Skills Review.** This course provides an opportunity for skills review in the simulation laboratories for students who have been out of school for up to one year due to a leave of absence. The schedule and preclinical projects are determined on an individual basis to prepare the student for re-entry into the curriculum. This course may be taken during the second or third years. (Clinical Rotation) (1 semester hour)

**THIRD YEAR**

**DENT 606-2. Oral Lesions II.** This course is presented as clinical pathological conferences in which various disease processes involving both the soft and hard tissues of the oral and paroral enviroms are discussed. Emphasis is placed on students’ ability to describe the lesion(s) presented, the accepted treatment modality and to arrive at a reasonable differential diagnosis. (Lecture) (3 semester hours)

**DENT 607-2. Basic Life Support II.** This course provides the background knowledge to prevent, diagnose and treat life-threatening conditions and to deal with prevention and recognition of emergencies that occur in the dental office. (Lecture) (1 semester hour)

**DENT 610-3. Periodontal Diseases-Advanced & Surgical Therapies.** Students will study evidence-based decision-making and contemporary management of advanced periodontal diseases. They will also be introduced to critical analysis of periodontal journal articles via seminar format. A variety of surgical principles and techniques will be addressed in lectures and in the simulation laboratory. (Lecture) (4 semester hours)

**DENT 611-3. Service Learning III.** Students with developed community health projects spend additional time in implementation and evaluation phases. Students integrate didactic material into active programs that benefit communities and selected groups of individuals. (Lecture) (3 semester hours)

**DENT 614-3. Pain, Fear and Anxiety Control III.** Methods used in control of pain, fear and anxiety in dentistry are presented in lecture, clinical participation and demonstration. The course emphasizes the use of nitrous oxide and oxygen analgesia with clinical participation. (Lecture) (2 semester hours)

**DENT 617-2. Advanced Biomedical Literature Skills for Case-Based Dentistry.** This instructional program is a continuation of Biomedical Literature Skills-1. Using case studies, students search specialized databases for evidence-based information for clinical decision-making. Students are introduced to the statewide biomedical knowledge-based electronic infrastructure. (Lecture) (1 semester hour)

**DENT 618-6. Fixed Prosthodontics Topics.** This is a lecture course that covers topics associated with full-coverage crowns and fixed partial dental prostheses (i.e. rational, materials, techniques, preparation and delivery procedures, etc.) (Lecture) (3 semester hours)

**DENT 621-A. Occlusal Disorders.** This is a presentation-based course that exposes the third-year dental students to more advanced occlusal considerations of patients. Definitions, etiology, pathophysiology and differential diagnosis of occlusal dysfunctions of the masticatory system are discussed. Emphasis is placed on conditions that the beginning general dentist should recognize and be able to treat as part of an overall comprehensive therapy for routine patients. The student dentist is exposed to various types of splints that can be used to treat acute patient problems involving muscular, TMD or disc dysfunction prior to dental therapy that may alter the patient’s
DENT 621-B. Occlusal Disorders. This is a laboratory and clinical-based course. The overall objective is to fabricate a flat-plane splint on partners and understand how these are adjusted intra-orally to help correct some of the disorders presented in D621-A. The students improve their impression-taking skills and are exposed to more in-depth principles using centric relation records, bite registration techniques and face bows. Student cases are mounted on articulators where students are exposed to more in-depth settings of the articulator and their correlation to patient factors. Students fabricate anterior guide tables and subsequent maxillary splints are fabricated. Finally, the students are exposed to principles and techniques for occlusal adjustments and selective grinding procedures. (Laboratory) (2 semester hours)

DENT 623-3. Clinical Problem Solving III. Students are required to attend Grand Rounds presentations and to participate in scheduled CPS team meetings and clinical sessions. Grand Rounds presentations and CPS team meetings grades are recorded separately, and each must have a passing grade in order to pass the CPS course. D3 students will guide and assist an assigned student with becoming familiar with team patient care, the problem-oriented dental record, departmental clinical protocols and chairside assisting. (Lecture) (14 semester hours)

DENT 624A. Implant Dentistry. Basic information for this treatment modality regarding indications, contra-indications, patient selection, potential complications and referral mechanisms is presented along with an overview of implant materials design, placement procedures and tissue interfaces. (Lecture) (1 semester hour)

DENT 624B. Implant Dentistry. The student gets hands-on experience with placement and restorative procedures for non-complex implant supported crowns and dental prostheses. (Laboratory) (2 semester hours)

DENT 633-2. Behavioral Disorders II: Pediatric Patient. This is a lecture course designed to introduce students to behavior management of the child dental patient. Skills in communication and behavior shaping are stressed. A range of patients is discussed from the so-called normal to those with special needs. (Lecture) (2 semester hours)

DENT 634. Systemic Medical Conditions. This is a course in systemic medical conditions and their impact on dental care for third year dental students. It is designed to teach students how to treat patients and provide dental care for patients who have varying degrees of compromising medical problems. The new graduate must be able to perform an examination that collects biological, psychological, and social information needed to evaluate the medical and oral condition of patients of all ages, determine a differential, provisional or definitive diagnosis by interpreting and correlating findings from the history, clinical and radiographic examination and other diagnostic tests, and diagnose, treat, and manage oral and maxillofacial surgical problems. (Lecture) (3 semester hours)

DENT 642-2. Ethics II. The course introduces health law and the Mississippi Dental Practice Act. It also is a continuation of the Introduction to Dental Ethics. Emphasis is placed on the relationship and obligations, both ethical and legal, of the dentist and the patient. Case studies are used to delineate principles of ethics in the dentist-patient relation. (Lecture) (1 semester hour)

DENT 643-1. Orthodontics I. The fundamentals of orthodontics and complementary topics are discussed. Subjects include dentofacial growth and development, normal occlusion, classification of malocclusion, and a historical and contemporary perspective of the orthodontic specialty’s relation to the profession of dentistry. Diagnostic and clinical concepts are illustrated with diverse clinical case presentations. Practical exercises in cephalometric and mixed dentition analysis are performed. The biomechanical principles of removable and fixed appliances are presented in preparation for the course Orthodontics II. (Lecture) (3 semester hours)

DENT 643-2. Orthodontics II. Case selection and appliance design for the treatment of uncomplicated malocclusions are discussed in a laboratory setting. Students take impressions and produce a set of orthodontic study casts. Several common fixed and removable appliances are fabricated. (Lecture) (3 semester hours)

DENT 646-1. Socioeconomic Factors I. This course introduces the dental student to the philosophy of scientific reasoning, i.e., biostatistics, epidemiology and research methodology will be presented. Examples from the dental literature are used to illustrate concepts. Overviews of the socioeconomic factors in Mississippi and current and proposed health care systems and practices as they relate to population oral health needs and demands will be included. (Lecture) (1 semester hour)

DENT 646-2. Socioeconomic Factors II. This course explains systems of health care delivery in the United States, with an emphasis on dental delivery systems. Students will review health policy concerns at the individual, state and national levels, and compare various organizational and financial approaches to providing health care. (Lecture) (2 semester hours)

DENT 650. Clinical Practice I. Clinical practice within dental school encounters all techniques required for practice of general dentistry. Clinical experience is the student’s responsibility with patients assigned for comprehensive care. Evaluations are made on daily clinic attendance and number of patient clinical experiences. (Lecture) (72 semester hours)

DENT 665. Aging. The course is designed to provide basic information about the aging process and its impact on the general health status of individuals. Special emphasis is placed on effects of aging in health and disease on the oral health status. Lecture material is presented on the biological process associated with normal aging, psychological changes that occur with aging, social and cultural impact of aging, changes of general health status with advancing age and the impact of age on dental care. Lecturers will be comprised of experts from the University of Mississippi Medical Center campus. (Lecture) (2 semester hours)

DENT 697-13. NERB Manikin Prep Course. This is a lab course in which the student practices (with faculty guidance) for endodontic and fixed prosthodontic procedures to be performed on the manikin portion of the NERB. (Laboratory) (2 semester hours)

FOURTH YEAR

DENT 611-4A. Service Learning and Community Oral Health. D4 students will utilize their learning experiences from their D3 service learning projects and build upon them to create a set of proven pathways/opportunities for future projects with the BEST PRACTICE MODEL PROJECTS. D4s will revisit and participate in their approved community projects or work in a FQHC during SLCOH week for a total of 40 hours. The student will make the arrangements for his/her choice of two or more FQHCs or/and project. If a FQHC is chosen, this time should be divided into at least 2 sites to as many as 5 sites to complete 40 hours. (Lecture) (3 semester hours)
DENT 611-4B. Service Learning and Community Oral Health. In the spring semester for 611-B, a reflective paper regarding Service Learning Concept and the student’s four-year learning experience will be required for completion of this course. The paper should include personal examples from their specific project from D2/D4 years and their overall opinion of the SLCOH years supporting your views. (Lecture) (1 semester hour)

DENT 622-4A. Methods IV- Practice Management. This course is designed to introduce the students to business factors important to make decisions on associateships and ownership of a dental practice. General business concepts are presented as well as specific concepts necessary to manage a successful dental practice. They are exposed to practice overhead including personnel cost. Students complete productivity logs to help them understand chair utilization, time management and effects of managed care and other third-party payers on financial outcomes. Leadership and management skills are emphasized as necessary for a successful practice. Personnel practices are presented so the beginning dentist is aware of legal obligations to hire, manage and terminate employees. Associateship agreements and practice transitions are discussed to aid the beginning dentist in finding employment opportunities and purchasing a practice. Students are also presented with personal financial strategies and how they relate to their dental business and to retirement planning. The students have exposure to practicing dentist in various stages of their careers that present their perspectives and advice and answer questions from the students. (Lecture) (3 semester hours)

DENT 622-4B. Methods IV- Practice Management. This course is designed to introduce the students to business factors important to make decisions on associateships and ownership of a dental practice. General business concepts are presented as well as specific concepts necessary to manage a successful dental practice. They are exposed to practice overhead including personnel cost. Students complete productivity logs to help them understand chair utilization, time management and effects of managed care and other third-party payers on financial outcomes. Leadership and management skills are emphasized as necessary for a successful practice. Personnel practices are presented so the beginning dentist is aware of legal obligations to hire, manage and terminate employees. Associateship agreements and practice transitions are discussed to aid the beginning dentist in finding employment opportunities and purchasing a practice. Students are also presented with personal financial strategies and how they relate to their dental business and to retirement planning. The students have exposure to practicing dentist in various stages of their careers that present their perspectives and advice and answer questions from the students. (Lecture) (1 semester hour)

DENT 623-4. Clinical Problem Solving IV. Students are required to attend Grand Rounds presentations and to participate in scheduled CPS team meetings and clinical sessions. The Grand Rounds presentation is evaluated by the quality of the supporting document that must be satisfactorily completed and submitted prior to the receipt of a final course grade. D4 students will guide and assist other team members with becoming familiar with team patient care, the problem-oriented dental record, departmental clinical protocols, and chairside assisting. The D4 team captain must also participate in D2 clinical orientations as required by departmental chairmen. Supporting Grand Rounds documentation, Grand Rounds participation and CPS team meetings grades are recorded separately, and each must have a passing grade in order to pass the CPS course. Daily clinical attendance is also must have a passing grade in order to pass the CPS course (Lecture) (12 semester hours)

DENT 630-2. Pulpal Disorders II. Emphasis on resolution of advanced problems in endodontics. The students will also be introduced to various instruments, supplies, and techniques that they may not have experienced during their preclinical and clinical years. (Lecture) (1 semester hour)

DENT 639-2. Advanced Topics in Oral-Maxillofacial Surgery. This course provides knowledge to diagnose and treat selected cases of complicated exodontia and to exclude or refer cases the practitioner does not feel competent to handle. Lecture and clinic participation by assisting oral and maxillofacial surgery staff. (Lecture) (2 semester hours)

DENT 642-4. Ethics IV. Emphasis will be on the role of integrity in our daily professional lives and how ethical reflection may contribute to our understanding of our professional roles and obligations. (Lecture) (1 semester hour)

DENT 644-1. Private Practice Practicum. Students will participate in extramural practice rotations throughout the state to observe clinical and business operations. They will assist and participate in clinical practice. (Practicum/Internship) (3 semester hours)

DENT 645. Advanced Topics. The Advanced Clinical Dentistry course provides a: 1) review of all clinical disciplines to help identify the students’ strengths and weaknesses as to basic concepts; 2) the integration of all clinical disciplines, as information from various disciplines as presented concurrently; 3) improving the students’ ability to approach patient care integrating knowledge from all disciplines during diagnosis, treatment planning, treatment and outcomes evaluations, and; 4) the introduction of new concepts, techniques, and materials. (Lecture) (1 semester hour)

DENT 675-1. Admissions. This is a clinical-based course developing the skills of interviewing patients, to ascertain pertinent medical and dental issues, and performing comprehensive diagnostic evaluations. These evaluations include soft- and hard-tissue exams, impressions, face bows and bite registrations for mounting diagnostic cast on articulators as well as dental photographs. After identifying all dental concerns, whether to be treated by the student dentist or not, the students consult with all applicable disciplines to develop strategies to address the problems of the patient. The students develop skills to assimilate information into appropriate treatment plans for the individual patients, as well as for all patients with similar types of problems. They also develop skills to present comprehensive treatment plans to patients in a manner that patients can appreciate. (Clinical Rotation) (6 semester hours)

DENT 675-2. Oral Pathology/Radiology. This course will teach dental students how to properly prescribe and make intra-oral and extra-oral radiographs. It will also teach them how to interpret radiographic images and construct a differential diagnosis of pathology visualized on these radiographic images. (Clinical Rotation) (5 semester hours)

DENT 675-3. Orthodontics. This rotation is designed to introduce the dental student to clinical orthodontics. The student treats one orthodontic case, presents two case presentations and recognizes how to manage orthodontic problems (Clinical Rotation) (4 semester hours)
DENT 675-10. Acute Illness. This course provides the opportunity for the student to learn basic skills necessary to provide basic oral surgery patient care. This includes medical assessment of the patient, physical exam, radiographic interpretation, diagnosis and planning care. Care is delivered in the oral surgery suite. Both full-time and part-time oral and maxillofacial surgeons provide clinic coverage and instruction. The student should be able to safely deliver basic oral surgical care upon successful completion of requirements for this course. (Clinical Rotation) (4 semester hours)

DENT 675-5A. Pediatric Dentistry. Each student is expected to provide comprehensive oral health care, including preventive maintenance care, for all patients assigned to them as primary provider. It is expected that patients are treated comprehensively following an appropriately sequenced treatment plan that has been approved by a full-time faculty member. Students are expected to complete all the care on each patient’s treatment plan as their primary provider as the development of a provider-patient-parent relationship is essential in Pediatric Dentistry. It is as important for the patient to begin to trust their health care provider as it is for the dental student to learn how to manage behavior of the patient and technically treat any dental needs of the patient. (Clinical Rotation) (6 semester hours)

DENT 675-5B. Advanced Experiences in Pediatric Dentistry. The clinical rotation focuses on providing essential experiences in management of a diverse patient population. This rotation will allow the students to interact and gain experience in management of pediatric patients that present at Batson Children’s Hospital for Children’s Dental Specialty clinic. During this time, the student will work closely with the postdoctoral residents and pediatric dentistry faculty as they provide comprehensive dental care to pediatric patients. (Clinical Rotation) (1 semester hour)

DENT 675-6. Periodontics. Students gain extensive clinical experience in periodontal evaluation, decision-making, non-surgical management, surgical management and health maintenance. Additionally, they are required to occasionally mentor first- and second-year students during Tuesday morning rotations. In order to pass the course, two competency examinations must be completed successfully. (Clinical Rotation) (12 semester hours)

DENT 675-7A. Operative Dentistry. This course is the senior level teaches the student to diagnose, plan and treat patients by utilizing direct filling materials, such as amalgam, and glass ionomer type restorations. (Clinical Rotation) (17 semester hours)

DENT 675-7B. Fixed Prosthodontics. This course allows students to diagnose, plan and treat patients needing fixed restorations (inlays, onlays, crowns and fixed partial dental prostheses). (Clinical Rotation) (10 semester hours)

DENT 675-7C. Removable Prosthodontics. This course allows students to diagnose, plan and treat patients needing removable prosthetics (conventional and immediate dentures, implant-retained or tooth-retained overdentures, interim and transitional partial dentures including acrylic, flexible resin and thermoplastic resin partial dentures, implant retained partial dentures and conventional partial dental prostheses). (Clinical Rotation) (14 semester hours)

DENT 675-8. Endodontics. This course component allows students clinical experience in diagnosis and treatment of endodontic disease and assessing outcomes of endodontic treatment. (Clinical Rotation) (5 semester hours)

DENT 675-10. Acute Illness. (Clinical Rotation) (6 semester hours)

DENT 675-11. Comprehensive Patient Care. This course is an assessment of the senior dental students ability to provide comprehensive treatment to their patients during their years of clinical patient care. (Clinical Rotation) (1 semester hour)

DENT 679. Mission First. (Clinical Rotation) (3 semester hours)

DENT 698. Elective Preceptorship Military or Public Health Dentistry. This elective is for those D4 students that have met the qualifications and are selected for training at a military or public health clinic. The student must actively participate in the patient care and operation of the clinic to which he/she is assigned. The student must also give an oral presentation to the course coordinator detailing the operation of that clinic when the student returns to the School of Dentistry. (Lecture) (3 semester hours)
DENT 698-9. Conduct of Research. The main objective of this elective is to permit exposure of dental students to research. This exposure may be first-time event or may be a continuation of previous research experiences. (Lecture) (2 semester hours)

DENT 698-10. Advanced Clinical Orthodontics. This course is designed to introduce the dental student to orthodontic practice. The student will understand office staffing, scheduling, inventory and sophisticated orthodontic armamentarium. (Lecture) (3 semester hours)

DENT 698-13. AGD-Residency Internship. This provides the undergraduate dental student exposure to advanced dental procedures, appropriate clinical treatment of all medically compromised patients and experience in communications with the medical community. Objectives will be completed by the use of clinical encounters. (Lecture) (3 semester hours)

DENT 698-17. Introduction to Scanning Electron Microscopy. After participation in this course, a student should be able to understand the theories and mechanics of electron microscopy, prepare specimens for SEM observation, align the column and observe specimens with the SEM, and produce high-quality SEM photomicrographs. The theory and practical aspects of performing compositional analysis and mapping using the energy dispersive X-ray spectrometer will be covered. At completion of the course, the student should be able to use the integrated SEM/EDS system to qualitatively determine composition as well as understanding the use of calibration to produce quantitative results. Use of the system for digital image acquisition and elemental mapping will be covered. (Lecture) (3 semester hours)

DENT 698-20. Externships. These are typically one to two weeks in length. They are located at other dental schools, hospitals or allied health facilities. They must be approved by the Dean and all clinical department chairs; therefore, you must submit your request for the program at least three months in advance. (Lecture) (3 semester hours)

DENT 698-34. Oral-Maxillo Facial Surgery Externship. On-site, UMMC. Students should expect to be involved in didactic and clinical instruction in oral and maxillofacial surgery. Experience with the medically compromised patient and inpatients can be expected as well. Surgical anatomy and local anesthetics will be reviewed. Summer, fall or spring semesters. Hours to be determined/approved by the chair of Oral & Maxillofacial Surgery. (Clinical Rotation) (1-3 semester hours)

DENT 698-37. Emergent Dental Care Center. The purpose of this elective is to provide the undergraduate dental student with additional opportunities to diagnose and manage patients with more complicated acute dental problems. (Lecture) (2 semester hours)

DENT 698-41. Periodontics Externship. The externship is designed to give rising D4 students interested in pursuing specialty training in Periodontics an opportunity to visit a graduate program in the specialty. Externships are arranged by the externship coordinator. Externships are generally one week in duration and may be completed at any accredited Periodontics specialty program in the United States. (Lecture) (1-3 semester hours)

DENT 698-48. Dental Mission Externship. The externship is designed to give D-3 and D-4 students elective credit for participation in volunteer dental mission projects. Students arrange to participate in a project, usually though not exclusively through a church-related group. Projects are community-based and each has specific goals. Up to 40 hours of elective credit may be earned, depending on the length of the project. (Lecture) (1-3 semester hours)

THE ORAL AND MAXILLOFACIAL SURGERY ADVANCED EDUCATIONAL PROGRAM (OMS AEP)

This is a six-year combined OMS residency/MD degree program designed to fulfill the educational requirements of the Council on Dental Education of the American Dental Association, the American Board of Oral and Maxillofacial Surgery and the American Medical Association. The successful candidate is awarded the MD degree after completion of the third and fourth years of medical school, certificate of one-year General Surgery internship after completion of PGY 2, and a certificate of OMS residency at completion of PGY 4.

Candidates are graduates of accredited U.S. dental schools who have met certain requirements set forth by the UMMC OMS residency and Medical School Admissions committee.

OMS AEP Outline

<table>
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<th>Program Year</th>
<th>Category</th>
<th>Training Description</th>
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<tr>
<td>1*</td>
<td>PGY1</td>
<td>OMS Resident</td>
<td>7/1 – 5/31</td>
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<td>2</td>
<td>M3</td>
<td>3rd Year Medical Student</td>
<td>6/1 - 5/31</td>
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<td>3**</td>
<td>M4</td>
<td>4th Year Medical Student (9 months)</td>
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<td>OMS Elective (4 months)</td>
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<td>4***</td>
<td>PGY2</td>
<td>General Surgery Intern (8 months)</td>
<td>7/1 – 2/30</td>
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<td>Anesthesia (4 months)</td>
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<td>5</td>
<td>PGY3</td>
<td>OMS Junior Resident</td>
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<td>6</td>
<td>PGY4</td>
<td>OMS Chief Resident</td>
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For a more detailed description of the OMS AEP program, refer to the Oral and Maxillofacial Surgery Residency Handbook, which can be found on the UMMC OMS webpage.

FACULTY

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Alicia S. Bouldin, Ph.D., Associate Dean for Outcomes Assessment and Learning Advancement
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T. Kristopher Harrell, Pharm.D., M.A., Director, Experiential Affairs

Division of Pharmacy Professional Development
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Meagan A. Brown, Pharm.D., Coordinator, Community Pharmacy Development
Joel R. Pittman, Pharm.D., Coordinator, Continuing Education
Gary D. Theilman, Pharm.D., Coordinator, Instructional Technology

HISTORY
The Board of Trustees created the School of Pharmacy on July 1, 1908. Although the main campus of the school remains in Oxford, the school established a presence on the University of Mississippi Medical Center (UMMC) campus in 1971 in order to access a larger patient population and to directly interact with other health professional schools. This presence grew and the School of Pharmacy Department of Pharmacy Practice was established on the UMMC campus in 1978. The Division of Pharmacy Professional Development, formerly the Bureau of Pharmacy Services, transitioned from the Oxford campus to the UMMC campus in 2004. The Department of Pharmacy Practice currently has approximately 30 full-time faculty and 30 part-time faculty on the UMMC campus, and approximately 315 preceptors in 180 practice sites.

MISSION
The mission of The University of Mississippi School of Pharmacy is to improve health, well-being and quality of life of individuals and communities by educating students, pharmacy practitioners and pharmaceutical scientists, conducting research, and engaging in service. We seek to accomplish this by providing:

- Innovative models of practice, with an emphasis on underserved populations and those with health disparities.
- Quality education for current professional and graduate students.
- Quality post-graduate training opportunities.
- Quality continuing professional development opportunities.
- An environment which promotes the generation and dissemination of new biomedical knowledge and technologies through collaborative and interdisciplinary research.
- Opportunities for discovery and dissemination of knowledge of natural products and novel pharmaceuticals.
- Leadership in the development and implementation of advanced pharmacy practice models.
- Service to internal and external stakeholders and the general population.
- Opportunities to conduct practice-based and translational research to address health disparities.

CORE VALUES
Core Values of the School Of Pharmacy (Listed In Alphabetical Order)

- Collaboration – By fostering a spirit of teamwork and partnership that is founded on respect for the contributions of others, we seek to create interdisciplinary, synergistic relationships characterized by inclusiveness and flexibility.
- Creativity – We seek to encourage and support resourcefulness, originality, imagination, ingenuity, and vision in our students, faculty, and staff.
- Excellence – We strive to meet and exceed, through continuous improvement, the highest expectations for achievement as we maintain the highest quality and standards in all of our endeavors.
- Knowledge – We value the discovery, acquisition, application, and dissemination of knowledge, and will work to foster these activities in pursuit of our vision and fulfillment of our missions.
• Leadership – We encourage and foster the development of leaders who have the ability to influence the thinking, understanding, and attitudes of others and who have the ability and courage to identify and effect solutions. Leadership requires the ability to inspire, enable, instill confidence, build a shared vision, and connect with others through mutual trust, responsiveness, and sincerity.

• Learning – We encourage and support student-centered, ability-based learning; the mentoring of new faculty, graduate and undergraduate students; lifelong learning; and intellectual curiosity.

• Professionalism – We foster, encourage, and expect the active demonstration of structural, attitudinal, and behavioral attributes of a profession and its members. We believe that there are certain professional attributes that are fundamental to our functioning as learners, educators, researchers, scholars, and practitioners of pharmacy. These attributes include a service orientation, one in which the needs of others are put above personal needs; caring; respect for others; accountability to our stakeholders and responsibility for one’s action; and integrity, honesty, and ethically sound decision making.

• Social Responsibility – We value respect for the diversity of people with whom we work and those we serve; the importance we place on our local, state, national and global communities; and our concern for the welfare of humanity and the environment, as evidenced in the way we serve others.

VISION
We are a highly-respected community of learners, educators, scientists, and practitioners whose innovative achievements position us as leaders in improving health and wellness.

Indicators:
• Increased funding for research.
• Placements of choice for our graduates, residents and fellows.
• Increase in number of high-impact publications and presentations.
• Increase in number of license agreements and commercialization of technologies.
• Recognition at a national level of faculty, students, student organizations and our programs through awards, scholarships and elected leadership positions.
• Development of collaborations internally and externally.
• Maintaining exceptional NAPLEX performance.
• Improved quality of incoming undergraduate and graduate students and post docs.
• Advancing innovative pharmacy practice models.
• Demonstrating improved health outcomes.

ORGANIZATIONAL STRUCTURE
A. Academic Departments
The School of Pharmacy is organized into four academic units – Department of Pharmacy Practice, Department of Pharmaceutics and Drug Delivery, Department of Pharmacy Administration and the Department of BioMolecular Sciences. The departments are located on the Oxford campus with the exception of the Department of Pharmacy Practice, which is located on both the Oxford and Jackson campuses.

B. Division of Pharmacy Professional Development
The Division of Pharmacy Professional Development is the unit primarily responsible for the professional development activities for pharmacy practitioners. This Division is located on the UMMC campus.

C. Research Institute of Pharmaceutical Sciences
Research activities are conducted within each academic department as well as in the Research Institute of Pharmaceutical Sciences (RIPS). The areas of research within RIPS are listed below. The Research Institute of Pharmaceutical Sciences (RIPS) was charted by the Mississippi Legislature in 1964 and exists within the organizational structure of the School of Pharmacy at The University of Mississippi. The Research Institute is organized around the efforts of a core of full-time research faculty. In addition, the academic faculty of the School of Pharmacy may have part-time appointments in the Institute. Activities of the Institute are conducted through the Center for Pharmaceutical Marketing and Management, the National Center for Natural Products Research and the Pii Center for Pharmaceutical Technology.

1. Center for Pharmaceutical Marketing and Management
The Center for Pharmaceutical Marketing and Management (CPMM) promotes efficiency and effectiveness in the marketing and management of pharmaceutical products and services in all segments of the industry. Through a unique strategic alliance between the School of Pharmacy and the School of Business Administration, the CPMM applies The University of Mississippi's distinctive competencies to focused research and innovative educational programs involving health care. The CPMM is committed to supporting education at all levels -- undergraduate, graduate, and practicing professionals.

The Center also provides an environment where business and education can come together to exchange real-world research ideas, results, and information. Past, present, and future research includes both applied and theoretical projects in an environment that encourages mutual interaction between industry professionals and the staff and students in the Center.

An open exchange of ideas, collaboration on development of solutions to problems, and dissemination of the findings will be the result. The programs of the Center include Pharmaceutical Marketing and Management Research and Pharmacy Entrepreneurship.
2. The National Center for Natural Products Research
The mission of the National Center for Natural Products Research (NCNPR) is to improve human health and agricultural productivity through the discovery, development, and commercialization of natural products or derivatives as pharmaceuticals and agrochemical. The National Center conducts basic and applied multidisciplinary research and educational activities in two major programmatic areas: the discovery of potential new drugs for certain infectious diseases, cancer, and immune and inflammatory diseases and the development of phytomedicines as therapeutic agents. Additionally, the NCNPR conducts research related to the development of medicinal plants as alternative crops for U.S. farmers.

3. Pii Center for Pharmaceutical Technology (Pii Center) Mission
The Pii Center for Pharmaceutical Technology (Pii Center) conducts interdisciplinary drug/polymer research that provides end stage pharmaceutical products directed at therapeutic conditions, vaccines, antidotes and wound care. This unique Center leverages the existing expertise and resources at The University of Mississippi, including the NCNPR. Utilizing cutting edge thermal processing, the Pii Center collaborates with private industry, government and academia to develop new, improved and expanded drug delivery systems. Many drugs and biological products require special delivery systems. The Pii Center provides problem-solving approaches for the development of cost effective, patient friendly and efficacious delivery systems for existing active pharmaceutical ingredients as well as for new chemical entities. Utilizing solid solutions and dispersions and nanotechnology, the Pii Center develops novel formulations to improve bioavailability and therapeutic efficacy.

PROFESSIONAL PROGRAM
The objective of the Doctor of Pharmacy curriculum is to provide an academic foundation with adequate professional experience to enable a graduate to successfully deliver pharmaceutical care in a variety of practice settings: community practice, institutional practice, managed care organizations, government service, etc. In order to accomplish this objective, the school offers two degree programs, (1) a four-year baccalaureate in pharmaceutical sciences degree, the fourth year of which is also the first of a four-year professional curriculum leading to the (2) Doctor of Pharmacy degree. Previous attainment of a Bachelor of Science (B.S.) in Pharmacy from this or another Accreditation Council for Pharmacy Education (ACPE) accredited School of Pharmacy or a B.S. in Pharmaceutical Sciences from this institution is prerequisite for admission into the Doctor of Pharmacy program.

The Bachelor of Science in Pharmaceutical Sciences is not a practice degree, nor does it entitle one to sit for the pharmacy licensure examination. This four-year degree provides the academic preparation for admission into either the Doctor of Pharmacy program, a graduate degree program in the biomedical or pharmaceutical sciences, a professional school, e.g., medicine or law, or a pharmaceutical science or pharmacy-related career path, e.g., pharmaceutical marketing and management, or environmental toxicology. This degree program includes both pre-professional (3 years) and professional (1 year) components.

The Doctor of Pharmacy (Pharm.D) degree is a practice degree awarded after successful completion of the four-year professional curriculum. The Doctor of Pharmacy degree allows one to sit for the pharmacy licensure examination. The first two years of the professional curriculum, Professional Year 1 (PY1) and Year 2 (PY2), are completed on the Oxford campus. The PY3 and PY4 years are administered on the UMMC campus. The PY4 year is completed in preceptor sites throughout Mississippi, including UMMC, and other states.

The University of Mississippi School of Pharmacy is committed to encouraging diversity in its student body and to graduating professionals dedicated to the delivery of compassionate pharmaceutical care to all segments of the diverse population in their communities. The school’s goals are developed to ensure that this commitment is manifested in all aspects of student life so that students are provided access to educational opportunities and social programs that are free from bias. The school expects that all students, faculty, and staff will be treated fairly without regard to race, age, color, gender, religion, national origin, sexual orientation, marital status, handicapped status, or veteran status.

A hallmark of the pharmacy profession is the trusting relationship between the pharmacist and his or her patients. That relationship is sustained by a commitment to the highest levels of professionalism. All students enrolled in the School of Pharmacy are expected to adopt and reflect the characteristics of a professional, which include integrity, empathy, fairness, responsibility, and a commitment to ethical behavior. In addition, students will demonstrate respect for peers, faculty, and staff of the school and exhibit a high level of maturity that reflects their status as a member of the greater pharmacy community. To further emphasize the commitment to professionalism, the school conducts a White Coat Ceremony for students beginning professional course work. At that event, students sign the Pledge of Professionalism.

ACCREDITATION
The School of Pharmacy holds membership in the American Association of Colleges of Pharmacy, an organization of the colleges and schools of pharmacy of the United States, whose objective is to promote pharmaceutical education and research. The Doctor of Pharmacy program was fully reaccredited in 2012 by the Accreditation Council for Pharmacy Education, 135 S. LaSalle Street, Suite 4100, Chicago, Illinois 60603; (312) 664–3575, (800) 533–3606; or fax (312) 664–4652.

Over the last five years (2010-2015), graduates had an above average pass rate on the North American Pharmacist Licensure Examination, which results in being among the top fifteen percent of schools of pharmacy in the nation.

MISSISSIPPI PHARMACY LAW
The Mississippi Pharmacy Practice Act, enacted by the Mississippi Legislature in 1983, requires that all practitioners obtain a license prior to engaging in the practice of pharmacy.

To obtain a license the applicant shall:
1. Have submitted a written application on the form prescribed by the board;
2. Be of good moral character;
3. Have graduated and received a degree from a program of a school or college of pharmacy accredited by the American Council for Pharmacy Education;
4. Have successfully passed an examination given by the board;
5. Have submitted documented evidence of the required practical experience;
6. Have paid the initial licensure fee.

Every prospective registrant must be a B.S. in Pharmacy or Doctor of Pharmacy graduate of a recognized school or college of pharmacy before the registrant may be permitted to take the NAPLEX examination for registration as a registered pharmacist. The Mississippi State Board of Pharmacy, consisting of seven members who are practicing pharmacists, is charged with the general administration of the laws regulating the practice of pharmacy. Transactions with the Board of Pharmacy are directed through the office of the secretary and executive officer, 6360 I-55 North, Suite 400, Jackson, Mississippi 39211.

**INSTRUCTIONAL FACILITIES**

**Oxford Campus:** The School of Pharmacy is located in Faser Hall and in the Thad Cochran Research Center. These facilities contain classrooms, laboratories, offices, and equipment used by the Departments of BioMolecular Sciences, Pharmaceutics and Drug Delivery, Pharmacy Practice, and Pharmacy Administration, as well as the Research Institute of Pharmaceutical Sciences, including the National Center for Natural Products Research, Center for Pharmaceutical Marketing and Management, and the Pii Center for Pharmaceutical Technology. Students complete the four-year B.S. in Pharmaceutical Sciences program on the Oxford campus. The majority of classes in the curriculum are held in technologically advanced auditoria complete with network connections and the ability for teleconference. Rooms dedicated for small group interaction are network ready and contain a variety of technologies used to enhance learning. Three additional years (PY2-PY4) of education are required to obtain the Doctor of Pharmacy degree. The PY2 year is completed on the Oxford campus and the PY3 and PY4 years are administered on the UMMC campus. The PY4 year is completed in preceptor sites throughout Mississippi, including UMMC, and other states.

**Jackson Campus:** The SOP building on the UMMC campus provides a state-of-the-art educational facility in the heart of an academic corridor. The facility houses the SOP administrative offices, all faculty, resident, and staff offices, and education and research space. The building includes 17 small group classrooms for Problem Based Learning (PBL), an auditorium that seats approximately 175, clinical and research laboratory space, student common areas and student organization office space.

**PROFESSIONAL ORGANIZATIONS**

Students enrolled in the professional pharmacy program have the opportunity to become affiliated with various national professional pharmacy organizations, including chapters of the Academy of Students in Pharmacy (ASP) of the American Pharmacists Association, National Community Pharmacists Association, Academy of Managed Care Pharmacists, American Society of Health-Systems Pharmacists, Christian Pharmacists Fellowship International, Student National Pharmaceutical Association, American College of Clinical Pharmacy, Prescription for Service, Pediatric Pharmacy Association, and American College of Veterinary Pharmacists Rebel Vets. The school also has chapters of the three professional fraternities: Kappa Psi, Phi Delta Chi, and Kappa Epsilon; a chapter of the Rho Chi Society, the pharmacy honorary society; Phi Lambda Sigma, the pharmacy leadership society; and The University of Mississippi School of Pharmacy Advocacy Council which was created in 2015. These organizations provide opportunities for professional development, involvement in service projects, and attainment of leadership skills.

**CODE OF PROFESSIONAL AND ETHICAL CONDUCT**

As a professional, the first concern of a pharmacist is the health and safety of those to be served. It is essential to the profession and the public that the integrity of all of its members be beyond reproach. The Code of Professional and Ethical Conduct has been established to inculcate appropriate ethical and moral values in students pursuing undergraduate and professional degrees in pharmacy. Details of the Code are available at [http://pharmacy.olemiss.edu/studentaffairs](http://pharmacy.olemiss.edu/studentaffairs).

**FINANCIAL AID**

Information on general financial aid programs is provided in the financial aid section of the University catalog. Inquiries about general financial aid should be directed to the Director of Financial Aid, The University of Mississippi, P.O. Box 1848, University, Mississippi 38677-1848. In addition, scholarships and loans are available specifically to students in the School of Pharmacy. Although School of Pharmacy scholarships are used for recruitment of students, the distribution of these funds is primarily based on academic performance in the professional program. Formal application for these scholarships is not necessary. Questions concerning scholarships and loans available only to pharmacy students should be directed to the School of Pharmacy Associate Dean for Academic Affairs. Scholarship policies are described in detail in the School of Pharmacy Student Handbook found online at [http://pharmacy.olemiss.edu/studentaffairs/](http://pharmacy.olemiss.edu/studentaffairs/).

**SCHOLARSHIPS**

**ALTA RAY GAULT MEMORIAL SCHOLARSHIP,** established in 1968 to honor Dr. Gault who was a faculty member in the Department of Pharmacology. The award is to assist professional degree students.

**AMIE EWING MEMORIAL SCHOLARSHIP,** awarded to a member of the PY2 class who exhibits those characteristics exemplified by Amie Ewing during her enrollment in the School of Pharmacy, namely her determination and participation in University extracurricular activities. The recipient is determined by the Student/Faculty Relations Committee. A separate application process is required and the amount is partially funded by proceeds from the sale of the specialty pharmacy automobile license tag.

**AMY B. JAEGGER MEMORIAL SCHOLARSHIP,** established in 2006 to honor Dr. Jaeger’s contributions as a member of the School of Pharmacy faculty. The recipient is a PY4 student.
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AMY MCELROY RUTHERFORD MEMORIAL SCHOLARSHIP, established in 1994 by Joe B. Rutherford. Recipients shall be full-time students who have been admitted to the professional pharmacy program. First preference is given to students from DeSoto County, Mississippi, and Shelby County, Tennessee.

BARBARA AND DEWEY GARNER SCHOOL OF PHARMACY SCHOLARSHIP ENDOWMENT, awarded to full-time students in the professional pharmacy program with first preference going to members of Kappa Psi Pharmaceutical Fraternity.

BRUCE R. PARKS MEMORIAL PHARMACY SCHOLARSHIP, established in 2003 to honor Dr. Parks' many contributions to the school and its students during his years of service as a devoted member of the faculty. Recipients will be students in the final two years of the professional program, who in addition to their academic achievement, demonstrate a commitment to community service.

CARDINAL HEALTH ENTREPRENEURIAL SCHOLARSHIP, established in 2012, is awarded to a PY3 student demonstrating continued interest in independent community pharmacy practice.

CHILTON MEMORIAL SCHOLARSHIPS, through the bequest of the late Mr. T.D. Chilton, who for many years operated a pharmacy in Vicksburg, Mississippi, the School of Pharmacy is able to offer several scholarships annually to students in the school. The criteria for selection are scholarship, leadership, and need.

CLYDE STANTON MAXCY MEMORIAL SCHOLARSHIP, established by his family in his memory. Mr. Maxcy was a 1981 graduate of the School of Pharmacy. The scholarship is awarded to professional pharmacy students.

C. MILTON O'KEEFE SCHOLARSHIP IN PHARMACY, established in 1985 by friends and relatives of the late Jackson, Mississippi, pharmacist. Students must be in the professional pharmacy program and plan to enter private practice to qualify for this award.

DAWN ALLEN MEMORIAL SCHOLARSHIP, awarded to a member of the PY3 and PY4 class based on scholarship, leadership, and active participation in student-related activities. Preference will be given to graduates of Holmes Community College.

DAWN AND CHARLES SMITH, SR. MEMORIAL SCHOLARSHIP IN PHARMACY, established in 2011 to assist full-time professional pharmacy students (PY1-PY4) who have a minimum GPA of 3.5. First preference is given to Mississippi or Louisiana residents. This scholarship may be retained throughout the professional program as long as the student maintains a grade point average of 3.5.

DIXIE STEELE DAVIS SCHOLARSHIP, established in 2006 in honor of Mrs. Davis who served the Office of the Dean for over 30 years prior to her retirement. The scholarship is to assist professional degree students.

ECKERD CORPORATION PHARMACY SCHOLARSHIP, established in 2003 to benefit pharmacy students who exhibit academic excellence.

FRANCES G. MCDONALD SCHOLARSHIP, established in 1980 for full-time students who are pursuing a pharmacy degree.

GERALD TIMOTHY BELL LIVING SCHOLARSHIP, awarded to full-time students in the second year of the professional program.

GERALDINE ATCHLEY SCHOLARSHIP, established in 2006 to assist female students enrolled in the professional degree program.

GRACE S. AND N.V. “CY” DOTY SCHOLARSHIP IN PHARMACY, established in 1979 by Mr. Arthur W. Doty in honor of his parents to benefit students in the School of Pharmacy. Recipients must be native Mississippians with demonstrated financial need and achievement in the areas of leadership, academics, and professional competence in the field of pharmacy.

HARRIET NAOMI EASLEY COX MEMORIAL SCHOLARSHIP IN PHARMACY, established by Mr. A. Conley Cox of West Point, Mississippi, in memory of his wife. The scholarship is available to students who meet established criteria for the award. Recipients must be Mississippi residents, preferably residing in Clay County.

HARTMAN-JOHNSON MEMORIAL SCHOLARSHIP, established in honor of Dr. Charles W. Hartman, the late dean of the School of Pharmacy, and Dr. W.W. Johnson, the late pharmacy professor. It is awarded annually to a pharmacy student enrolled in the professional program.

HENRY CECIL CALDWELL SCHOLARSHIP, established in 2007 to assist Mississippi residents in the School of Pharmacy.

HENRY MINOR FASER SCHOLARSHIP, established in 1986. Recipients shall be full-time students of at least junior standing, who have been admitted to the professional pharmacy program.

JACK R. DUNN MEMORIAL SCHOLARSHIP, established by his family in memory of Mr. Dunn, who for many years operated a pharmacy in Lexington, Mississippi, this scholarship is awarded to professional pharmacy students.

JAMES O. HOGUE SCHOLARSHIP, established by friends and colleagues of the late Mr. Hogue to honor his memory, while providing scholarship assistance to a senior pharmacy student dedicated to retail pharmacy and who indicates a strong ability in pharmacy management.

JOHNSON-ABDO PHARMACY FAMILIES SCHOLARSHIP ENDOWMENT, awarded to full-time students who have been admitted to the professional pharmacy program.

JOHNSON-CONDON PHARMACY FAMILY SCHOLARSHIP ENDOWMENT, established in 2005 to assist students in the professional degree program.

LINTON FAMILY PHARMACY SCHOLARSHIP ENDOWMENT, awarded to full-time students who have been admitted to the professional pharmacy program; minimum 3.0 GPA; must have demonstrated financial need; first preference given to students from Humphreys, Lee or Panola counties.

MADELINE SCIACCA SCHOLARSHIP ENDOWMENT was established in 2011 to assist deserving young women and men who are pursuing a professional degree from the School of Pharmacy.

MAHMOUD ELSOHLY FAMILY SCHOLARSHIP, established in 2005 to assist students in the professional degree program with preference for students raised in Lafayette County.

MCCASKILL PHARMACY FAMILY SCHOLARSHIP, established in 2005 to assist students in the professional degree program with preference for students raised in Lafayette County.

MCKINLEY R. CLARK SCHOLARSHIP ENDOWMENT, established in 2011 to provide scholarship assistance to deserving students at The University of Mississippi.
PLOUGH PHARMACY SCHOLARSHIPS, named in honor of Mr. Abe Plough, founder of Plough, Inc. and the Plough Foundation, which established the fund. These scholarships are available to professional pharmacy students.

RALPH FRITZ CAMERON, SR MEMORIAL SCHOLARSHIP, established in 2005 to assist professional students with preference for students involved in leadership activities.

RICHARD AND BARBARA WELLS SCHOLARSHIP, established in 2001, is awarded to members of the PY3 and PY4 class based on active participation in student professional activities.

RITE AID PHARMACY SCHOLARSHIP ENDOWMENT, established in 2012 to provide income for scholarship assistance to deserving students enrolled in the School of Pharmacy.

ROBERT W. CLEARY RHO CHI PHARMACY SCHOLARSHIP, established in 2001 by Joan Cleary, in memory of Dr. Robert Cleary, former chair of pharmaceutics. It is awarded to a full-time student admitted to the professional pharmacy program and who is a member of Rho Chi.

QUENTIN ROSS SANDERSON SCHOLARSHIP ENDOWMENT, established in 2011 to assist a full-time professional pharmacy student who has a minimum grade point average of 3.5. First preference is given to students from Warren County. Second preference is given to students from Jones County.

SAMUEL EDWARD WILKS SCHOLARSHIP ENDOWMENT, awarded to full-time students in the professional pharmacy program with first preference given to students from Marion or Walthall counties.

SIDNEY K. ARMSTRONG SCHOLARSHIP IN PHARMACY, established in 1983, is awarded annually by the School of Pharmacy Scholarship Committee.

TERENCE E. DOWNER SCHOLARSHIP QUASI-ENDOWMENT, established in 2006, is awarded to full-time students selected by a faculty committee of the Center for Pharmaceutical Marketing and Management and the Department of Pharmacy Administration at The University of Mississippi. Recipient will be determined based on grade point average, Pharmacy Administration grade point average, essay submission and an interview.

VICKSBURG HOSPITAL MEDICAL FOUNDATION SCHOLARSHIP, established to assist professional pharmacy students, with preference given to those from the Vicksburg area.

WILLIAM H. BERRY SCHOLARSHIP, established in 1994 through the estate of Mr. Berry. Recipients shall be Mississippi residents already admitted to the professional pharmacy program.

WILLIAM DUNCAN WATKINS SCHOLARSHIP ENDOWMENT IN PHARMACY, awarded to full-time students admitted to the professional pharmacy program.

AWARDS

School of Pharmacy student award presentations occur at Commencement and at the School of Pharmacy Awards Ceremony. The recipients of those awards are chosen by the academic departments or by members of the Faculty, Honors, Awards, and Commencement Committee. Near the end of the spring semester, Phi Lambda Sigma, the Pharmacy Leadership Society, sponsors the Pharmacy School Awards Assembly. In addition to Departmental Awards, all student organizations and classes present their various student awards and teacher-of-the-year awards at the assembly. PY3 and PY4 students are excused in order to attend this assembly. PY4 students not in attendance are to be at their rotation site. Failure to attend either location will result in a $100.00 fine payable to the Student Body.

Special recognition is given to a graduating PY4 student, PY3 student, PY2 student, and a PY1 student who are recipients of the Debbie Mellinger, Charisma Pope, Amie Ewing, and Shawn Bankston Awards respectively. The awards are named after young women who died while enrolled in the School of Pharmacy.

The DEBBIE MELLINGER AWARD was established in 1993 by the members of Phi Lambda Sigma. Ms. Mellinger was a charter member of the local chapter and served as its initial president. The students of the PY4 class determine the recipient and the selection process is coordinated by the class president. The award is presented to an individual who has exhibited courage and a positive attitude in carrying out normal student activities even though confronted by significant personal hardship.

The CHARISMA POPE AWARD was established in 2004 by the Magnolia State Pharmaceutical Society. The award recipient is selected by the Magnolia State Pharmaceutical Society and is presented to a rising PY4 student who must be a member of this Society and the Student National Pharmaceutical Association (SNPhA). The criteria for selection are academic performance, financial need, professional goals, and the degree to which applicant shares the unique blend of charismatic characteristics befitting an individual named Charisma, and which resulted in the love and high esteem in which she was held by her student peers.

The AMIE EWING AWARD was established by the 2005 Pharm.D. Graduating class. Each spring one or more PY2 students are to be selected to receive this scholarship award. The selected student(s) must demonstrate those characteristics that were exemplified in Ewing, who also was a member of the Ole Miss Volleyball team in 1999-2002. The recipient(s) must exhibit determination, good citizenship, professionalism and maturity within School of Pharmacy activities and the greater community. The recipients are determined following nominations/applications by the Faculty Student Relation Committee.

The SHAWN BANKSTON AWARD was established by the 2000 PY1 class to honor their deceased class member. The selection of the recipient is coordinated by the PY1 class president. The criteria for selection are the frequent demonstration during the PY1 year of a significant willingness to assist classmates, and the demonstration of an ever present positive attitude at the expense of personal sacrifice of time.
The school awards presented at the Awards Ceremony include the following departmental academic awards. A single award is presented by each department.

The **BIOMOLECULAR SCIENCES AWARD** is given for outstanding scholastic achievement in medicinal chemistry courses, pharmacognosy courses and pharmacology courses.

The **PHARMACEUTICS AND DRUG DELIVERY AWARD** is given for outstanding scholastic achievement in pharmaceutics courses.

The **PHARMACY ADMINISTRATION AWARD** is given for outstanding scholastic achievement in pharmacy administration courses.

The **PHARMACY PRACTICE AWARD** is given for outstanding scholastic achievement in pharmacy practice courses.

Other student awards whose recipients are selected by the Honors, Awards and Commencement Committee include:

The **AINSWORTH FAMILY LEadership AWARD** is presented to a PY3 and a PY4 student who have demonstrated outstanding leadership qualities while enrolled in the School of Pharmacy.

The **BRUCE PARKS MEMORIAL MSHP STUDENT AWARD** is presented in memory of Dr. Bruce Parks, former professor in the department of pharmacy practice, to a student who exemplifies outstanding integrity, leadership, and a strong desire to enhance the mission of health-system pharmacy in Mississippi.

The **CARDINAL HEALTH NATIONAL LEadership Conference AWARD** is presented to a rising PY4 student who has demonstrated a commitment to institutional pharmacy practice and leadership in the local chapter of ASHP. The student is invited to attend the Cardinal Health National Leadership Conference held during the summer following PY3 year.

The **ELI LILLY AND COMPANY AWARD FOR LEadership** is awarded to the graduating Bachelor of Science in Pharmaceutical Sciences student who has demonstrated outstanding leadership within the School of Pharmacy and its organizations.

The **FACTS AND COMPARISONS AWARD FOR EXCELLENCE IN CLINICAL COMMUNICATIONS** is presented to a PY4 student in recognition of effective pharmacist-patient communication skills as a vital aspect of pharmacists’ service to their patients and community.

The **MERCK AND COMPANY AWARD FOR SCHOLARSHIP** is awarded to three students who have achieved the highest levels of academic excellence based on a combination of the grade point average achieved in their required pre-pharmacy course work, their PY1 professional year, and the total number of college credit hours earned.

The **MYLAN INSTITUTE OF PHARMACY EXCELLENCE IN PHARMACY AWARD** is presented to a graduating Doctor of Pharmacy student who has demonstrated high academic achievement and a strong commitment to the profession of pharmacy.

The **PATIENT CARE AWARD** is presented to a student who has demonstrated superior performance in patient care skills during the experiential component of the Doctor of Pharmacy program.

The **RHO CHI SCHOLARSHIP AWARD** is presented to the student for achieving the highest grade-point average during the four years of the professional program of the School of Pharmacy leading to the Doctor of Pharmacy degree.

The **SCHOOL OF PHARMACY HALL OF FAME** award, chosen by the graduating Doctor of Pharmacy class, recognizes significant contribution to the school, both scholastically and professionally. Two Hall of Fame members are selected.

The **SERVICE AWARD** is awarded to a PY2 and PY4 student who have demonstrated outstanding service within the School of Pharmacy and its organizations.

The **TEVA PHARMACEUTICALS NON-PRESCRIPTION DRUG THERAPY AWARD** is presented to the student who demonstrated high academic achievement in the study of non-prescription drug therapy.

The **UNITED STATES PUBLIC HEALTH SERVICE EXCELLENCE IN PUBLIC HEALTH PHARMACY PRACTICE AWARD** is presented to a PY4 student in recognition of contribution to public health pharmacy practice.

### SCHOOL OF PHARMACY DEGREE PROGRAMS

(Detailed information regarding the undergraduate/professional program is available in the School of Pharmacy Student Handbook located online at [http://pharmacy.olemiss.edu/studentaffairs/](http://pharmacy.olemiss.edu/studentaffairs/))

#### I. Bachelor of Science in Pharmaceutical Sciences Program

Undergraduate students entering the professional program of the School of Pharmacy will be admitted into the B.S. in Pharmaceutical Sciences program. This is a four-year degree consisting of three years of pre-professional education followed by one year of professional courses, culminating in the awarding of the baccalaureate degree. This degree does not provide eligibility to sit for the licensure examination for pharmacy practice. This program is offered in its entirety on the Oxford campus.

Admission into this degree program can occur in the fall of the freshman year, i.e., “early entry,” but more typically after completion of the three-year pre-pharmacy curriculum at The University of Mississippi or other accredited institution, i.e., “regular entry.”

#### II. Doctor of Pharmacy Program

The Doctor of Pharmacy degree is the entry-level professional degree, requiring a minimum of four years of professional course work. The first year consists of the final year of the B.S. in Pharmaceutical Sciences degree program and is completed on the Oxford campus. The second year is completed on the Oxford campus and the final two years are taken at the UMMC campus and at a variety of practice sites located throughout Mississippi and the mid-South region.

Graduates of a B.S. in Pharmacy program, accredited by the Accreditation Council for Pharmacy Education (ACPE), and who are licensed to practice pharmacy in Mississippi, and graduates of The University of Mississippi B.S. in Pharmaceutical Sciences program are eligible for admission into the Doctor of Pharmacy program. Requests to transfer to this program from students in good academic standing at other ACPE accredited schools of pharmacy will be considered on an individual basis, as well as on a space-available basis. Such transfers must occur prior to the beginning of the PY3 year, given the unique nature of course design of this program as compared to other schools of pharmacy. Transfer, if approved, may result in the student being required to take, at a minimum, an additional semester of course work, given the uniqueness of course sequencing in the various schools of pharmacy.
A. Application Process

To be considered for admission into the entry-level Doctor of Pharmacy program, B.S. in Pharmaceutical Sciences students must, during the spring semester of the PY1 year, reapply to the University of Mississippi by completing an UNDERGRADUATE admission application choosing “pre-pharmacy” as the major. Final admission will not occur until after graduation from the B.S. in Pharmaceutical Sciences program. The applicant’s major classification will be updated at that time.

B. Admission Criteria

The minimum requirements for provisional admission to the entry-level Doctor of Pharmacy program are as follows:

1. Successful completion of the B.S. in Pharmaceutical Sciences curriculum.
2. A GPA (calculated on all grades earned) of at least 2.65 on all required courses in the PY1 year of the B.S. in Pharmaceutical Sciences curriculum.
3. Grades of at least C in each of the required courses in the PY1 curriculum.

C. Progression Requirements

A student must have a 2.75 GPA and no grade below C in all required classes in the PY2 curriculum in order to matriculate to the PY3 curriculum. A student who receives two or more grades below C in the PY2 or PY3 or PY4 curriculum will be dismissed from the Doctor of Pharmacy program. Students dismissed from the program must repeat the entire year from which they were dismissed in order to progress in the curriculum. If a PY3 student has not yet completed the semester at the time they have earned the second grade of less than C, they may continue to complete the Group course remaining in that semester but will not be allowed to continue the other PY3 courses. However, their enrollment status for the Group course will be changed to “Audit”. If the student chooses not to remain in the course, they are to request to be withdrawn from all non-completed courses. The University of Mississippi Academic Forgiveness Policy does not apply to professional students receiving grades of less than “C” in courses offered by School of Pharmacy academic departments. A student academically dismissed may only be re-admitted one time. No required course may be taken more than two times. All courses must be completed with a grade of C or better to be eligible for graduation. Students have the right to file a written petition with the Dean of the School of Pharmacy seeking waiver of any of these policies.

PY3 students receiving a grade of less than “C” in one of the Knowledge and Comprehension or Problem Solving courses in Blocks I-IV are provided the opportunity to remediate that course in either Winter Intersession or May Intersession. Students receiving a grade of less than C in a PY3 Group course can begin APPE rotations as scheduled, but must drop out of rotations in order to repeat the Group course in the normal block in which the course was failed. This will result in the student being two APPEs behind schedule.

D. Criminal Background Inquiry

Students are required to undergo fingerprinting and criminal history check at two separate times upon pursuit of the Doctor of Pharmacy degree. The first check will be conducted as part of the process of registration with the Mississippi State Board of Pharmacy as a student extern/intern. Such registration is required for acceptance into the B.S. in Pharmaceutical Sciences program. Specific procedures for this process are outlined in the Backgrounds Check Policy which may be found on the Board’s website. The student and the Board receive the results of the background checks along with explanation letters. Students should keep a copy of all background check letters. If as a result of the investigation there are any issues determined by the Board to prevent the student from being licensed as an extern/intern, that student will not receive final admission into the B.S. in Pharmaceutical Sciences program. The School will accept a copy of the student extern/intern registration card as documentation that background checks have been conducted and Board clearance has been obtained.

Background check information is only considered valid for two years. An additional fingerprinting and background check will be conducted upon entry to the University of Mississippi Medical Center campus immediately prior to the PY3 year. Background checks will be scheduled through the University of Mississippi Medical Center Department of Human Resources. The Human Resources Department and the student will receive the results of the background check and explanation letter. The Human Resources Department will only provide students with an ID badge once clearance has been obtained. Therefore, the ID badge serves as documentation that the student has been cleared to be a member of the UMMC community. Students must wear ID badge to access all UMMC teaching and patient care areas. Therefore, failure to have said badge would prohibit School of Pharmacy students from completing their PY3/PY4 curriculum. As a result, failure to obtain the badge due to issues discovered during the background investigation will result in dismissal from the professional degree program.

Furthermore, students may be requested at any time to undergo another background check or random drug testing by UMMC or a rotation practice site other than on the UMMC campus, perhaps at the expense of the student. This situation results because not all health care facilities have the same exact policies regarding the background of staff, health care professionals, or students permitted to be on site. In most instances the site would be satisfied with the results obtained by the check administered prior to obtaining the UMMC ID badge. Therefore, students are urged to retain copies of letters indicating the results of prior investigations in order to provide such documentation to preceptors or rotation site directors. If the student is not allowed to complete a rotation due to an issue from the background check, other arrangements will be attempted to allow the student to complete requirements at a different site. However, if no sites will accept the student based on the results of the background check, the student will be dismissed from the program since he or she will not be able to complete the degree requirements.

E. Curricular Philosophy

The curricular philosophy for the entry-level Doctor of Pharmacy program is an amalgamation of four general principles. Completion of the curriculum will (1) prepare practitioners who can effectively participate in the pharmaceutical care practice model as defined below, (2) ensure the development of a defined set of general and professional education abilities listed below, as well as appropriate content knowledge, (3) ensure that students become active, rather than passive, learners, and (4) ensure
the development of higher-order thinking skills. These principles and curricular characteristics are evident in all four years of the professional program (PY1-PY4).

1. Pharmaceutical Care
The curriculum leading ultimately to the Doctor of Pharmacy degree is designed to provide the abilities necessary for the graduate to be capable of providing acceptable levels of pharmaceutical care. Pharmaceutical care is the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life. These outcomes are (1) cure of a disease, (2) elimination or reduction of a patient's symptomatology, (3) arresting or slowing of a disease process, or (4) preventing a disease or symptomatology.

Pharmaceutical care involves the process through which a pharmacist cooperates with a patient and other professionals in designing, implementing, and monitoring a therapeutic plan that will produce specific therapeutic outcomes for the patient. This in turn involves three major functions: (1) identifying potential and actual drug-related problems, (2) resolving actual drug-related problems, and (3) preventing potential drug-related problems.

Pharmaceutical care is a necessary element of health care, and should be integrated with other elements. Pharmaceutical care is, however, provided for the direct benefit of the patient, and the pharmacist is responsible directly to the patient for the quality of that care. The fundamental relationship in pharmaceutical care is a mutually beneficial exchange in which the patient grants authority to the pharmacist and the pharmacist gives competence and commitment (accepts responsibility) to the patient. The mission of a pharmacy practitioner is the distribution of optimal pharmaceutical care in addition to accurate distribution of drugs.

2. Abilities-based Curriculum
An ability comprises a combination of knowledge, skill, and attitude. The curriculum culminating in the awarding of the Doctor of Pharmacy degree is ability-based, rather than entirely content-focused. Successful completion of the program will ensure the development of both general and professional abilities. Progression through the four-year curriculum provides for the formulation and continuous strengthening of these abilities.

Abilities Fostered by the Curriculum at The University of Mississippi School of Pharmacy
The curriculum culminating in the awarding of the Doctor of Pharmacy degree at The University of Mississippi School of Pharmacy is ability-based. Successful completion of the program will ensure the development of both general and professional educational abilities (listed below). Progression through the four-year curriculum provides for the formulation and continuous strengthening of these abilities. These have been modified from the School’s outcomes delineated in 1998, in order to reflect new emphases present in the 2004 CAPE Outcomes Statement for Pharmacy Education and the 2007 ACPE Guidelines.

UM General Abilities
The following three general educational abilities are emphasized by the Southern Association of Colleges and Schools (SACS); and demonstration of programmatic contribution to these general abilities is desired by The University of Mississippi for all appropriate undergraduate majors.

1. Critical Thinking, Analysis and Decision-Making
   The student can find, understand, analyze, evaluate, and synthesize information and make informed, rational, and responsible decisions.

2. Communication Skills
   The student can communicate with various audiences by written, verbal, and electronic media for a variety of purposes.

3. Mathematical Competence
   The student is proficient in the expression of quantitative relationships and can perform the needed mathematical operations to infer their consequences.

Professional Abilities of the School of Pharmacy

1. Assess patient drug therapy
   a. Collect and organize patient data, medical records, interviews, and psychomotor evaluations
   b. Evaluate and interpret patient data
   c. Apply knowledge of medical terminology and abbreviations
   d. Apply knowledge of specified drugs and drug classes
   e. Apply knowledge of specific physiologic systems
   f. Apply knowledge of specific disease pathology and comorbid conditions

2. Provide contemporary evidence-based patient-specific drug therapy
   a. Apply understanding of indications for pharmacologic and non-pharmacologic therapy
   b. Apply clinical reasoning skills in drug product selection, chemical entity, and dosage formulation based on principles of pharmaceutics, medicinal and natural product chemistry
   c. Develop appropriate dosing regimens, which reflect application of knowledge of pharmaceutical calculations, systems of measurement, initial dose, dose titration, and dosage adjustments
   d. Prepare accurate patient-specific pharmaceutic agents, dosage forms and delivery systems
   e. Develop rational plans for monitoring therapeutic outcomes
   f. Develop rational plans for monitoring and managing adverse events
g. Develop plans for anticipating, avoiding, and resolving drug interactions, drug-drug interaction, drug-food interaction, drug-disease interaction, drug-lab interaction, and drug-procedure interaction
h. Develop plans for patient education on drug therapy and therapeutic lifestyle changes
i. Document recommendations and services accurately and comprehensibly

3. **Provide contemporary evidence-based population-focused care**
   a. Analyze epidemiologic and pharmacoeconomic data, medication use criteria, medication use review, and risk reduction strategies
   b. Apply knowledge of protocol utilization for the initiation and modification of drug therapy
   c. Develop population-based protocols for medication therapy management

4. **Manage patient-centered practice with contemporary methods**
   a. Appropriately manage resources to maximize economic, clinical and humanistic outcomes for patients, and effectively manage financial, personnel, time, and technology resources
   b. Appropriately manage safe, accurate and time-sensitive medication distribution
   c. Apply ethics and professional principles to assure efficient utilization of resource management and effective treatment choices
   d. Assure that medication use systems minimize medication errors and optimize patient outcomes
   e. Develop proposals for establishing, marketing, and being compensated for medication therapy management and patient care services rendered
   f. Practice in accordance with state and federal regulations and statutes

5. **Collaborate with patients, caregivers, and health professionals to engender a team approach to patient care**
   a. Employ communication styles and techniques appropriate to the audience
   b. Work effectively within a multidisciplinary/interdisciplinary environment
   c. Include patient and caregiver as integral parts of a treatment plan

6. **Retrieve, analyze, and interpret the professional, lay, and scientific literature to provide drug information to patients, their families, other involved health care providers and the public to optimize patient care**
   a. Apply understanding to statistical methods
   b. Apply understanding of research design principles
   c. Evaluate research outcomes for validity
   d. Demonstrate expertise in informatics

7. **Demonstrate understanding of health problems specific to diverse populations**
   a. Display empathy in patient interactions
   b. Display sensitivity to differences in ethnicity, gender, values, or belief systems (cultural competency)
   c. Apply understanding of contemporary and historical social and economic factors that influence health and health care, including health literacy and health care disparities

8. **Provide comprehensible, effective education to patients, health care professionals, and the public**
   a. Serve as reliable and credible source of drug information
   b. Effectively educate patients using all appropriate communication modalities (verbal, written, other)
   c. Apply knowledge of roles of advocacy and support organizations (e.g., AA, Epilepsy Foundation) to practice
   d. Present effective educational programs and presentations to public and health care profession audiences

9. **Analyze internal and external factors that influence pharmacy and other health care systems**
   a. Demonstrate knowledge of the impact of health care systems on pharmacy practice
   b. Demonstrate understanding of the influences of legislation on pharmacy practice
   c. Demonstrate understanding of the roles of professional organizations

10. **Promote the availability of effective health improvement, wellness, disease prevention, and health policy, applying population-specific data, quality improvement strategies, informatics, and research processes**
    a. Engage in health-related community outreach activities
    b. Identify public health problems
    c. Suggest solutions for public health problems
    d. Review current health policies and recommend modifications
    e. Participate in the development of drug use and health policy
    f. Help design pharmacy benefits

11. **Develop self-learning skills to foster lifelong learning**
    a. Take responsibility for gathering new knowledge
    b. Demonstrate an ability to evaluate and utilize information resources
    c. Exhibit self-assessment behaviors
3. Active Learning

Instructional methodology emphasizes active (independent) rather than passive (dependent) learning. A characterization of active learning is as follows:

Most students enter pharmacy schools as dependent learners; that is, they enter with the perception that it is the teachers’ responsibility to teach students, while de-emphasizing, if not ignoring, the responsibility of students to learn on their own. Students come to health professional schools adept at memorizing facts, and the teaching methods at most professional schools readily focus on this characteristic. In practice, the practitioner must rely on his or her ability to interpret data in order to reach conclusions and solve problems. There is no “teacher” in practice (except other practitioners and the patient). Consequently, in practice, the responsibility to learn must reside with the learner/practitioner. And so it must be while in the School of Pharmacy. The responsibility to learn must rest with the learner/student, not with the teacher.

It follows, then, that a major responsibility of pharmacy educators is to shift the burden of learning from the teacher to the student. The transition from a dependent learner to an independent learner must occur as the student progresses through the pharmacy curriculum. Students must understand that to become educated is to know what questions to ask and where the answers may be found.

Teaching must be achieved through educational processes that involve students as active learners. One measure of achieving this goal is to require participation in cooperative learning projects. Teachers must view themselves as coaches and facilitators rather than merely as providers and interpreters of information. As students move from the PY1 to the PY4 years, increasing emphasis is placed on active learning strategies.

4. Development of Higher-Order Thinking Skills

Closely aligned with the incorporation of active learning strategies is the formatting of class evaluation instruments to include more emphasis on higher-order thinking skills. Different questions require different levels of thinking. Lower-level questions are appropriate for assessing students’ preparation and comprehension or for reviewing and summarizing content. Higher-level questions encourage students to think critically and to solve problems. Various researchers have developed cognitive schemes for classifying questions. Bloom’s system of ordering thinking skills from lower to higher has become a classic and includes the following skills:

a. Knowledge skills (remembering previously learned material such as definitions, principles, formulas): “Define shared governance.” “What are Piaget’s stages of development?”

b. Comprehension skills (understanding the meaning of remembered material, usually demonstrated by restating or citing examples): “Explain the process of mitosis.” “Give some examples of alliteration.”

c. Application skills (using information in a new context to solve a problem, answer a question, perform a task): “How does the concept of price elasticity explain the cost of oat bran?” “Given the smallness of the sample, how would you analyze these data?”

d. Analysis skills (breaking a concept into its parts and explaining their interrelationships; distinguishing relevant from extraneous material): “What factors affect the price of gasoline?” “Point out the major arguments Shelby Steele uses to develop his thesis about affirmative action.”

e. Synthesis skills (putting parts together to form a new whole; solving a problem requiring creativity or originality): “How would you design an experiment to show the effect of receiving the Distinguished Teaching Award on a faculty member’s subsequent career progress?” “How would you reorganize Bloom’s taxonomy in light of new research in cognitive science?”

f. Evaluation skills (using a set of criteria to arrive at a reasoned judgment of the value of something): “To what extent does the proposed package of tax increases resolve the budget deficit?” “If cocaine were legalized, what would be the implications for public health services?”

The School of Pharmacy faculty are committed to increasing the percentage of questions on their examinations that involve higher-level thinking skills. The commitment is based on the assumption that it is the development of these skills that will enable the graduate to provide appropriate levels of patient care.

F. Curriculum Entry-level Doctor of Pharmacy Program

PY2 YEAR

<table>
<thead>
<tr>
<th>FIRST SEMESTER</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>Basic and Clinical Pharmacology I (PHCL 443)</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to the Principles of Medicinal Chemistry I (MEDC 416)</td>
<td>3</td>
</tr>
<tr>
<td>Pharmacy Law (PHAD 491)</td>
<td>2</td>
</tr>
<tr>
<td>Pharmacy Management and Business Methods (PHAD 493)</td>
<td>3</td>
</tr>
<tr>
<td>Pharmacy Practice I (PRCT 450)</td>
<td>2</td>
</tr>
<tr>
<td>Practice Skills Laboratory III (PRCT 455)</td>
<td>2</td>
</tr>
<tr>
<td>Elective (professional)</td>
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</tr>
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<td>TOTAL</td>
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<th>WINTER INTERSESSION</th>
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<tbody>
<tr>
<td>Introductory Pharmacy Practice Experience (PRCT 477)</td>
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</tr>
<tr>
<td>Course</td>
<td>Hours</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>Basic and Clinical Pharmacology II (PRCT 444)</td>
<td>4</td>
</tr>
<tr>
<td>Introduction to the Principles of Medicinal Chemistry II (MEDC 417)</td>
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</tr>
<tr>
<td>Natural Product Derived Pharmaceuticals (PHCG 422)</td>
<td>4</td>
</tr>
<tr>
<td>Pharmacoeconomics, Pharmacoepidemiology, &amp; Medicine Safety (PHAD 494)</td>
<td>3</td>
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<tr>
<td>Pharmacy Practice II (PRCT 451)</td>
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<tr>
<td>Practice Skills Laboratory IV (PRCT 456)</td>
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<tr>
<td>Elective (professional)</td>
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<td><strong>TOTAL</strong></td>
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**MAY INTERSESSION**

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<tr>
<td>Introductory Pharmacy Practice Experience (PRCT 478)</td>
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<tr>
<td><strong>TOTAL</strong></td>
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**PY3 YEAR**

**FIRST SEMESTER**

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Pharmaceutical Care I: Knowledge and Comprehension</td>
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</tr>
<tr>
<td>Pharmaceutical Care I: Problem Solving</td>
<td>2</td>
</tr>
<tr>
<td>Pharmaceutical Care I: Group</td>
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<tr>
<td>Pharmaceutical Care II: Knowledge and Comprehension</td>
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<tr>
<td>Pharmaceutical Care II: Problem Solving</td>
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<td>Pharmaceutical Care II: Group</td>
<td>3</td>
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<tr>
<td>Community Pharmacy Practice III (Z grade) (PRCT 543)</td>
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<td>Pharmacy Skills Laboratory V (PRCT 577)</td>
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**SECOND SEMESTER**

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<tr>
<td>Pharmaceutical Care III: Problem Solving</td>
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<tr>
<td>Pharmaceutical Care III: Group</td>
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<tr>
<td>Pharmaceutical Care IV: Knowledge and Comprehension</td>
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<td>Pharmaceutical Care IV: Problem Solving</td>
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</tr>
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<td>Pharmaceutical Care IV: Group</td>
<td>3</td>
</tr>
<tr>
<td>Institutional Pharmacy Practice III (Z grade) (PRCT 544)</td>
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<tr>
<td>Preventive Medicine and Public Health (PRCT 552)</td>
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</tr>
<tr>
<td>Specialty Pharmacy Practice Elective (Z grade) (PRCT 545)</td>
<td>1</td>
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<tr>
<td><strong>Total</strong></td>
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</tr>
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</table>

**PY4 YEAR**

Each student will participate in four required five-week rotations (medicine, ambulatory care, institutional practice, and community practice) and four five-week elective rotations for a total of 40 weeks of experiential education during the period beginning in June following completion of the PY3 year and ending with May commencement of the succeeding year. The electives must be in four different areas of training. Students also must register for Seminar Skills Development II (PRCT 567) during one semester of the PY4 year.

**G. Additional Program Requirements**

1. **Basic Life Support for the Health Care Provider Training**
   - Basic Life Support for the Health Care Provider (BLSHCP) training is required of all students. A BLSHCP course trains students how to perform adult, child and infant cardiopulmonary resuscitation (CPR); manage foreign body airway obstruction in the adult, child and infant; defibrillate utilizing an Automated External Defibrillator. Documentation of this training must be submitted and may be in the form of a photocopy of the course completion card. BLSHCP training is provided for students in the first professional year and the third professional year through skills laboratory courses.

2. **Immunization Requirements**
   - **Hepatitis B Immunization**
     - Students are required to show proof of Hepatitis B immunization prior to admission into the School of Pharmacy. Students (at the students’ expense) will be required to demonstrate proof of completion of the three-shot series of hepatitis B vaccinations prior to completion of the PY1 year. If a student has not been immunized previously against hepatitis B, he or she should complete the series of three injections, which are to be administered over a six-month period during the PY1 year. More than 90 percent of students so immunized will demonstrate a positive antibody titer within one month after completion of the injection schedule. Students may want to ascertain their immune status prior to beginning this series of injections.
All PY1 students must present proof of extern/intern registration with the MSBP prior to receiving final admission into the program. Accepted students must submit documentation of a two-step TB skin test performed within 90 days (3 months) prior to school entry. The second dose of the two-step TB test must be placed within 28 days of the initial TB skin test. If the TB skin test is positive, a chest X-ray report must also be submitted. U.S. students who have been undergoing annual TB skin test screening prior to enrollment may submit 2 consecutive annual reports of negative TB skin tests, one of which must have been done within the past 3 months, in lieu of the two-step TB skin test.

International students with a previous positive TB skin test or students with a history of immunization with BCG should submit a report of a Quantiferon TB Gold/ T-spot TB blood test obtained within 3 months prior to school entry. They should not complete TB skin testing. If the blood test is positive, a chest X-ray report obtained within 3 months of school entry must be submitted.

### Programmatic Assessment

Student participation in programmatic assessment activities is required prior to commencement for verification of diploma application to occur. These activities may be University, School and accreditation agency mandated. It is expected that students will take these activities seriously and to perform to the best of their ability. Otherwise, the results of these assessments would be invalid and unreliable and may lead to inappropriate programmatic changes.
COURSES

Department of BioMolecular Sciences

A. Division of Medicinal Chemistry - MEDC
NOTE: A grade of at least C is required on all prerequisite courses.

317. PHARMACOGENETICS AND PHARMACOIMMUNOLOGY. A detailed introduction to the basic concepts of molecular genetics, biotechnology, and immunology of life processes that provide an essential foundation for rational drug therapy. Prerequisite: PY1 Classification. (3).

318. CHEMICAL AND BIOLOGICAL TERRORISM. Chemical, biological, radiological and nuclear terrorism poses a considerable threat throughout the world. The expectation of chemical, biological, radiological and/or nuclear violence is recognized as an acute security challenge. The likelihood, over time, of terrorist organizations coming into possession of such unconventional materials, and their use against the United States homeland, is tremendously elevated. The combination of increasing availability of technology and expertise, a mass-casualty attack may be inevitable. Prerequisite: PY1 or PY2 classification or CHEM 101. (2-3).

319. COMPUTER-AIDED STRUCTURE BASED DRUG DESIGN (CADD): DATABASE SCREENING AND de novo DESIGN OF POTENTIAL DRUG MOLECULES. Utilization of the art commercial software involving in part manipulating freely available protein x-ray structures from the Protein Data Bank (PDB) as well as carrying out the drawing and energy minimization of small molecule potential ligands for active site of the selected protein. Prerequisite: PY1 or PY2 classification.

415. CHEMICAL NEUROSCIENCE PRINCIPLES OF DRUG ABUSE. This course will cover the Chemical Neuroscience Principles of Drug Abuse including, but not limited to, neurochemistry, neuropharmacology, toxicology, and pharmacotherapy. Pre-requisite: MEDC 415 and PHCL 443. Co-requisite: MEDC 417 and PHCL 444. (1).

416. MEDICINAL CHEMISTRY OF THERAPEUTIC AGENTS I. Introduction to the chemical and physical properties of medicinal agents, relationships of structural properties of drugs to pharmacological properties and metabolism profiles, chemical stability, mechanism of action and clinically significant chemical interactions. Pre-requisite: PY2 Classification (3).

417. MEDICINAL CHEMISTRY OF THERAPEUTIC AGENTS II. Continuation of the introduction to the chemical and physical properties of medicinal agents, relationships of structural properties of drugs to pharmacological properties and metabolism profiles, chemical stability, mechanism of action and clinically significant chemical interactions. Prerequisite: MEDC 416. (3).

418. NEUROSCIENCE PRINCIPLES OF DRUG ABUSE. The content of this course focuses on the fundamental understanding of the chemical and physiochemical properties of drugs of abuse and chemical dependency as it relates to the practice of pharmacy. Prerequisite: PY2 classification. (1).

419. SPECIAL TOPICS IN ONCOLOGY. This course is designed for students to engage in advanced discussions of oncological therapeutic topics to increase their knowledge about the ideology, clinical presentation and management of various solid and hematological malignancies. Prerequisite: PY2 classification. (1).

B. Division of Pharmacognosy - PHCG
NOTE: A grade of at least C is required on all prerequisite courses.

320. SPECIAL TOPICS IN OCEANS AND HUMAN HEALTH. An overview of how the oceans and coast impact human health and well-being. Prerequisite: PY1 or PY2 classification. (2).

321. PATHOGENESIS OF INFECTIOUS DISEASES. This course covers all aspects of infectious diseases, including etiology, epidemiology, and characteristics of disease-causing pathogens, host-pathogen interactions, symptoms and prognosis of specified infectious diseases. Course is only open to pre-pharmacy and Early Entry students enrolled in the School of Pharmacy. Prerequisite: BISC 162, 163. (4).

329. HERBAL SUPPLEMENTS AND ALTERNATIVE THERAPY. This course focuses on the use of plants and other products as herbal dietary supplements. It covers all the herbs used today including all aspects of regulation, activities, purity, and drug-herb interactions. It also covers alternative therapies used in place of and/or with conventional medicine. Prerequisite: PY1 Classification. (2).

422. NATURAL PRODUCT-DERIVED PHARMACEUTICALS. This course covers all aspects of natural products used as pharmaceuticals, including both plant-derived and microbial-derived (antibiotics). Prerequisite: PY2 Classification. (4).

425. POISONOUS PLANTS AND MUSHROOMS. This course is designed to give students a basic knowledge of harmful plants and mushrooms with emphasis on their identification, toxicity, symptoms of intoxication, first aid and poisoning treatments. Pre-requisite: PY2 Classification. (1).

427. DRUG DISCOVERY I. This course focuses on the techniques included in the characterization of drug substance from natural sources (plant, animal, and microorganisms). (3).

428. DRUG DISCOVERY II. This course focuses on laboratory techniques in drug discovery research. In particular, laboratory rotations through plant, marine, and microbe techniques will be emphasized. Prerequisite: PHCG 427. (3).

541, 542. PROBLEMS IN PHARMACOGNOSY. Individual investigation of problems of current interest in pharmacognosy. Prerequisites: minimum GPA of 2.5 on all professional pharmacy courses attempted and consent of instructor. (1-4, 1-4).
C. Division of Pharmacology - PHCL

NOTE: A grade of at least C is required on all prerequisite courses.

202. ENVIRONMENTAL HEALTH PERSPECTIVES. A survey course emphasizing environmental health issues such as overpopulation, resource management, environmental degradation, and pollution. The course is designed for nonpharmacy majors. Prerequisite: BISC 102, 104, or their equivalents. (3).

340. ANIMAL CELLS: TESTING NEW DRUGS. The aim of this course is to provide an introduction to the multiple biochemical and molecular approaches that explain how cell reacts to foreign organic agents without introducing the names of too many specific drugs. It is intended to develop the subject from the point of view of pharmacologists who are working at the molecular level and trying to understand the problems of drug-cell interactions. Parts of the discussion will be a repetition for some students. However, lectures are concentrated on key theories and novel approaches that hone in on a variety of contemporary interdisciplinary fields, which defines pharmacology. Prerequisite: PY1 classification. (1).

341. HUMAN PATHOPHYSIOLOGY I. The students will understand the consequences of disease on normal physiology. An in-depth study of the pathophysiological condition will equip the students to assess multi-organ system dysfunction. These basic understandings will enable the students to progress through the curriculum with a knowledge and analytical base necessary to excel during their practice experiences. Prerequisite: PY1 classification. (3).

342. HUMAN PATHOPHYSIOLOGY II. The students will understand the consequences of disease on normal physiology. An in-depth study of the pathophysiological condition will equip the students to assess multi-organ system dysfunction. These basic understandings will enable the students to progress through the curriculum with a knowledge and analytical base necessary to excel during their practice experiences. Prerequisite: PHCL 341. (3).

343. BIOCHEMICAL FOUNDATIONS OF THERAPEUTICS. A detailed introduction to the chemistry of life processes, structure-activity relationships for biological molecules, and metabolism and its regulation. Prerequisite: Chem 222, Chem 226; Course is only open to pre-professional and Early Entry students enrolled in the School of Pharmacy. (3).

344. PHYSIOLOGICAL FOUNDATION OF THERAPEUTICS. Systemic physiology with a study of organ function and an emphasis on human physiology. The structure and function of the major body systems will be explored including the integumentary, muscular, skeletal, cardiovascular, lymphatic, respiratory, digestive, nervous, endocrine, urinary, reproductive, and body fluids and electrolytes. Aspects of cell structure, organization and physiology and molecular aspects of cell biology will be covered. The students will gain an understanding of normal physiology of the body at the cell and organ level. These basic understandings combined with critical thinking will enable the students to progress through the curriculum with a knowledge and analytical base necessary for understanding pathogenesis, pharmacological treatments and clinical outcomes. Ultimately, the factual material and the critical clinical thinking ability acquired in the case studies and laboratory sessions will provide the basis and rationale for selective pharmacotherapy and the understanding of its use in varying disease states. Prerequisite: Bisc 162, 163. Course is only open to pre-professional and Early Entry students enrolled in the School of Pharmacy. (4).

345. FUNDAMENTALS OF CANCER. Discussions of fundamental, underlying biological changes from normal physiology to cancer. Course will include discussions of the cell cycle, cancer genetics, regulation of expression, carcinogenesis, metastasis and more to encompass an understanding of all concerns when considering treatment options in subsequent courses. Prerequisite: PY1 or PY2 Classification. (2).

346. IMMUNOLOGICAL BASIS FOR THERAPEUTICS. This course will provide students with an overview of how immune system works and its involvement in health and disease. Course is only open to pre-pharmacy and Early Entry students enrolled in the School of Pharmacy. (3).

347. INTRODUCTION TO ENVIRONMENTAL TOXICOLOGY. Introduction to chemical nature and reactions of toxic substances; their origins and uses; and the aspects of exposure, transformation, and elimination. The course is designed for biology, chemistry, and pharmacy majors. Prerequisites: BISC 160, BISC 162, CHEM 221, CHEM 222, or their equivalents. (2).

348. PRINCIPLES OF LIFE SCIENCE RESEARCH. This course addresses a broad spectrum of activities associated with the conduct of life science research. Students should gain a thorough understanding of the requirements, expectations and responsibilities of life science researchers. Prerequisite: PY1 or PY2 classification. (1).

349. SPECIALIZED TOPICS IN ENVIRONMENTAL HEALTH. This course will consists of focused, in-depth discussion of timely issues related to environmental health. Students will be informed of the issues through reading scientific literature and will be expected to propose solutions through discussion and writing assignments. Topics will be dictated by current events but could include, for example, environmental lead exposure and toxicity, pharmaceuticals in the environment, consequences of climate change, contamination of the food supply, e-waste, etc. Pre-requisite: PY1 or PY2 Classification. (1).

351. DRUGS AND HUMAN PERFORMANCE. This course encompasses an analysis of the pharmacological, historical, religious, ethical, legal, and administrative considerations related to the use of drugs or supplements for the non-therapeutic purpose of enhancing cognitive, sexual, or physical performance. The primary goal of the course to develop an in-depth appreciation of the factors associated with the non-therapeutic (off label) use of substances to enhance human performance. More specifically the course will enable a better understanding of the pharmacological as well as non-pharmacological factors associated with such use. This course, unlike a typical “Drug Abuse” course will not consider the use of substances to produce a “high” or altered state of consciousness e.g. a positive or negative euphoria. Rather, the emphasis will be on the use of substances (includes some controlled drugs) to improve human performance.

381. INTRODUCTION TO TOXICOLOGY. Biological and chemical factors which influence toxicity. Review of various classes of compounds of industrial, agricultural, therapeutic, and economic importance. Emphasis on the forensic implications of poisoning by these agents. Prerequisites: CHEM 222, 226; and consent of instructor. (3).

440. PHYSIOLOGIC CASE STUDY FOR THERAPEUTICS. The course focuses on problems based physiologic study of organ function and an emphasis on human physiology. The structure and function of the major body systems will be explored including the musculoskeletal, cardiovascular, respiratory, renal, nervous, endocrine, and body fluids and electrolytes. Prerequisite: PY2 classification. (1).
441. PHARMACOLOGY: NOVEL DRUGS IN CLINICAL TRIALS. An in-depth discussion of topics of current importance in pharmacology of commonly occurring diseases is emphasized. Students learn about medicines currently in clinical trials and therapies in development. Prerequisite: PY2 classification. (2).

442. CLINICAL TOXICOLOGY. This course is designed to apply basic pharmacological and toxicological principles to the management of poisoned patients. Several of the drugs commonly encountered in accidental or intentional poisoning are to be covered. The student should be able to recognize signs and symptoms of poisoning, characterize the type and extent of intoxication, and develop a specific management plan. Prerequisite: PY2 classification. (2).

443. BASIC AND CLINICAL PHARMACOLOGY I. Basic principles of pharmacodynamics; pharmacology of drugs acting on the autonomic nervous system; and other drug classes acting on autonomic-innervated organs. Prerequisite: PY1 Classification. (4).

444. BASIC AND CLINICAL PHARMACOLOGY II. Continuation of 443; central nervous system drugs; hematopoietic, immunosuppressant, antineoplastic, and antiallergic drugs; basics of environmental and clinical toxicology. Prerequisite: PHCL 443. (4).

445. NUTRITIONAL PHARMACOLOGY. Discussions of how drugs, nutrients, and disease states interact and affect one another, how nutritional supplements influence drug therapy, nutritional status, and disease processes. Prerequisite: PY2 classification. (1).

**Department of Pharmaceutics and Drug Delivery - PHAR**

NOTE: A grade of at least C is required on all prerequisite courses.

330. PHARMACEUTICAL CALCULATIONS. This course introduces the prescription, prescription notation and abbreviations, basic pharmaceutical calculations, statistics, and the mathematics of chemical kinetics and pharmacokinetics. Pre-requisite: PY1 Classification. (1).

331. BASIC PHARMACEUTICS I. This course is designed to teach those basic principles of physics and chemistry that are necessary to understand pharmaceutical dosage forms and their design. Pre-requisite: PY1 Classification. (3).

332. BASIC PHARMACEUTICS II. This course provides an understanding of various dosage forms and drug delivery systems and how medicinal and pharmaceutical substances are incorporated into them. Prerequisites: PHAR 331. (3).

334. BIOPHARMACEUTICS AND PHARMACOKINETICS. Physiochemical and biological factors affecting drug bioavailability; time course of drugs and metabolites in the body: individualizing dosing regimens. Pre-requisite: PY1 Classification. (3).

335. CLINICAL LABORATORY DATA ANALYSIS. The primary purpose of this course is to enhance the student’s skills in clinical lab test interpretation. It will also provide information on common laboratory tests used to screen for or diagnose disease, monitor the effectiveness and safety of treatment, or assess disease severity. The various laboratory tests will be described in terms of its clinical uses, how the lab test relates to the disease, how to interpret the lab test results, and causes for abnormal lab test results. Pre-requisite: PY1 or PY2 Classification. (1).

432. CONCEPTS IN PHARMACEUTICAL BIOTECHNOLOGY. This course provides students with basic concepts, principles and methodologies underlining modern biotechnology and which are applied in the pharmaceutical sciences. Prerequisite: PY2 classification. (1).

433. INDUSTRIAL PHARMACY. This course is designed to introduce students to the manufacturing, documentation, and regulatory aspects of pharmaceutical manufacturing. Prerequisite: PY2 classification. (2).

435. PHARMACEUTICAL STABILITY. This course is designed to introduce the students to the manufacturing, documentation and regulatory aspects of Pharmaceutical Manufacturing. Prerequisite: PY2 classification. (2).

436. PRODUCT DEVELOPMENT. The course is designed to provide an understanding of the development of pharmaceutical dosage forms. Prerequisites: PHAR 332 or consent of instructor. (3).

541, 542. PROBLEMS IN PHARMACEUTICS. Investigation of individual problems of current interest in pharmaceutics. Prerequisite: minimum GPA of 2.50 on all professional pharmacy courses attempted and consent of instructor. (1-3, 1-3).

**Department of Pharmacy Administration - PHAD**

NOTE: A grade of at least C is required on all prerequisite courses.

390. PROFESSIONAL COMMUNICATIONS IN PHARMACY. Develop an understanding of the nature of communication and the types of communication skills necessary to deliver optimal pharmaceutical services. Prerequisite: PY1 Classification. (2).

391. SOCIAL AND BEHAVIORAL ASPECTS OF PHARMACY PRACTICE. The purpose of this course is to provide the necessary background to understand the complexity of human and social issues that exert a powerful influence on the pharmacy profession. Special emphasis is given to the interdependent roles of the patient, the pharmacist, and the physician in illness and health care. Pre-requisite: PY1 Classification. (3).

392. INTRO TO PHARMACY AND HEALTH CARE SYSTEM. An examination of the structure and organization of pharmacy and the factors involved in the delivery and financing of health care in public and private sectors. (3).

393. LEARNING AND TEACHING: A PROFESSIONAL ELECTIVE. The goal of this course is to provide pharmacy students with a forum to exchange ideas, refine specific skills, and enhance their knowledge of concepts related to teaching and learning. These topics are relevant to a student’s own personal journey as a lifelong learner, as well as to current and future teaching experiences that individuals may have, either as a pharmacist (patient education) or pharmacy educator (preceptor or faculty member). Perquisite: PY1 or PY2 classification. (1).

394. INTERMEDIATE BIOSTATISTICS FOR PHARMACISTS. This course is designed to provide pharmacy students with an overview of frequently used statistical procedures in the biomedical literature. This course is designed to expand on the principles of biostatistics covered in PRCT 350. The goal is to enhance both the breadth and depth of coverage, while also introducing the use of statistical software packages. Pre-requisite: PRCT 350. (2).
396. MARKETING FOR COMMUNITY PHARMACISTS. This course is an elective focused on exploring the factors affecting use and acceptance of, delivery of, promotion of and pricing of innovative pharmacy products in the community pharmacy setting. The ability of pharmacists to develop innovative services and market them to patients, health care providers, payers, government agencies, and others is crucial to the advancement of pharmacy. Students will be introduced to marketing principles and how they are applied in community pharmacy. Pre-requisite: PY1 or PY2 Classification. (1).

397. SURVEY OF MEDICATION NONADHERENCE. The purpose of this course is to examine patient nonadherence in its many forms in the health care system and to discover best practices that help resolve nonadherence behaviors to ensure optimal therapeutic outcomes. Prerequisite: PY1 or PY2 Classification. (1-2).

401. PHARMACY LAW. Pharmacists’ common-law and statutory obligations under the American constitutional system of dual national and state authority. Prerequisite: PY2 Classification. (2).

412. CURRENT ISSUES IN HEALTH CARE. This elective course is designed to provide pharmacy students an opportunity to broaden their knowledge of current health care issues. Prerequisite: PY2 classification. (1).

493. PHARMACY MANAGEMENT AND BUSINESS METHODS. Pharmacy Management and Business Methods takes foundational management theories and concepts and translates them to the specific challenges faced by today’s pharmacy managers, regardless of the setting. This course will take an integrated didactic and active learning approach to tackle management issues faced by pharmacists such as: Personal resource management, personnel management, general operations management, special management skills, implementation of value-added services and management applications in various practice settings. Pre-requisite: PY2 Classification. (3).

494. PHARMACOECONOMICS, PHARMACOEPIDEMIOLOGY, AND MEDICATION SAFETY. This course is designed to provide students with a comprehensive review of the evaluation of pharmaceutical outcomes. Drug effects issues on patient populations will be examined. Mechanisms and approaches in improving medication in pharmacy practice will be explored. To meet the general purpose of this course, the course is divided into three separate, but related, modules:

- Pharmacoconomics: this module will cover basic concepts and techniques in pharmacoeconomics including cost and costing, outcomes assessment and health-related quality of life, cost-of-illness, cost-minimization, cost-benefit, cost-effectiveness, cost-utility analysis and decision analysis using pharmacoeconomic modeling techniques.
- Pharmacoepidemiology: this module will focus on the principles of epidemiology applied to the study of medication use, study designs and data sources in pharmacoepidemiology, and pharmacovigilance; medication adherence and persistence will also be covered.
- Medication Safety: this module is intended to explore the concepts of health care quality and medication safety and the mechanisms to prevent and reduce medication errors in pharmacy practice. Pre-requisite: PY2 Classification. (3).

495. TECHNIQUES OF PHARMACEUTICAL SALES. To introduce various strategies and tactics available to those who represent the pharmaceutical industry to therapy decision-makers. (2).

496. PRINCIPLES OF PHARMACEUTICAL MARKETING. The nature and scope of the pharmaceutical industry, its marketing practices, and environment. Prerequisites: minimum grade of “C” in MKTP 351 or PHAD 391. (3).

497. PERSONAL FINANCE. This course will be a continuation of the basic personal finance concepts learned in PHAD 493. Hands-on experience and projects throughout the semester will give students the tools to evaluate how their money is currently being spent, set short-term and long-term financial goals, reduce their tax liability, adequately insure themselves and their assets, make sound investment choices, prepare for retirement, navigate the stock market, evaluate mutual funds, strategize for major purchases, evaluate and select a financial planner, manage money during major life changes, and prevent theft of their identity. Financial planners will also speak with students in some of these content areas. Pre-requisite: PY2 Classification. (1).

541, 542. PROBLEMS IN PHARMACY ADMINISTRATION. Investigation of individual problems. Prerequisites: minimum GPA of 2.50 on all professional pharmacy courses attempted and consent of instructor. (1-6, 1-6).

**Department of Pharmacy Practice - PRCT**

**NOTE:** A grade of at least C is required on all prerequisite courses. Courses preceded by an asterisk (*) can only be taken after successful completion of PRCT 555, 556, 558, 559, 561, 562, 564, and 565.

Course registration is limited to PY1 or PY2 students

^350. INFORMATION SKILLS IN PHARMACY PRACTICE. This course is designed to introduce students to drug information resources as well as provide the student with an understanding of principles of biostatistics, epidemiology, and research design with the underlying goal being the acquisition of skills used by pharmacists to seek, appraise, and apply knowledge from the biomedical literature to improve pharmacy practice and patient care. The course will consist primarily of assigned readings, quizzes, interactive lectures, and group projects. (3).

^353. PHARMACY PRACTICE SKILLS LABORATORY I. This course is the first of a five course series (to be completed in the first five semesters in which a student is enrolled in the professional degree program) which provides introduction to and continuous development of pharmacy practice skills and behaviors, emphasizing active learning for integration and application of curricular content and incremental development of professional and general abilities. Prerequisite: Course is only available to first year students in the professional degree program. (2).

^354. PHARMACY PRACTICE SKILLS LABORATORY II. This course is the second of a five-course series (to be completed in the first five semesters in which a student is enrolled in the professional degree program), which provides introduction to and continuous development of pharmacy practice skills and behaviors, emphasizing active learning for integration and application of curricular content and incremental development of professional and general abilities. (2).

^357. ADVOCACY AND LEADERSHIP IN PHARMACY. This elective course will offer advocacy and leadership development for PY1 and PY2 students. The course will be especially appropriate for officers and members of pharmacy student organizations who are motivated to become leaders in the profession. Students will relate leadership to current health care issues and will have opportunities to explore the advocacy processes. (2).
^358. GERIATRICS. This elective course is designed to provide the student with the fundamentals of geriatric pharmacy practice. (1).

^359. TOBACCO CESSATION EDUCATION. This elective course will provide students with the knowledge and skills necessary to provide comprehensive tobacco cessation counseling to patients with nicotine dependence. (1).

^360. PERSONAL TIME MANAGEMENT FOR PHARMACY STUDENTS. An elective course that explores several personal time management theories and assists the pharmacy student in developing a system that works for them. (1).

^361. VACCINE-PREVENTABLE ILLNESSES/TRAVEL MEDICINE. This course introduces common illnesses and the vaccines to prevent them. Signs and symptoms of illness are covered as well as proper ways to prevent the spread of illness. Vaccine indications, contraindications, adverse effects, and other associated information are also introduced. Additionally, the course addresses vaccines and other medication therapy which is specifically related to international travel, and it provides students with the opportunity to develop comprehensive vaccine plans for example, patient scenarios. Prerequisite: PY1 or PY2 Classification. (1).

362. VETERINARY PHARMACY. This course offers the pharmacy student an introduction to veterinary pharmacy. Unique anatomic, physiologic, and metabolic limitations that affect drug distribution in common veterinary species are described. Species variations in pharmacodynamic activity or pharmacokinetic behavior that contribute to differences in drug dosage requirements and adverse drug events are discussed, and attention is given to unusual sensitivity of particular animal species (or breeds) to the effects produced by certain drugs. Differences in a drug’s behavior in humans versus veterinary species are stressed. Common disease states and pharmacologic treatment strategies are covered, including veterinary and human approved products along with appropriate options for compounded medications. Basic and clinical aspects of the more common toxicities that affect domestic animals are considered. The legal aspects of dispensing and compounding prescription drugs for companion animals and food-producing animals are discussed. Upon completion of this course the pharmacy student will be able to demonstrate sufficient knowledge and training to accurately interpret veterinary prescriptions, offer drug information consultations to veterinarians, council pet owners regarding appropriate drug administration and potential adverse drug events, and legally and ethically compound and/or dispense medications for non-human patients. Prerequisite: PY1 or PY2 Classification. (2).

375. INTRODUCTION TO COMMUNITY PHARMACY PRACTICE I. An introduction to medication dispensary process and related patient care activities in a community pharmacy practice setting. (1). (Z grade).

376. INTRODUCTION TO INSTITUTIONAL PHARMACY PRACTICE I. An introduction to the medication dispensary process and related patient care activities in an institutional practice site. (1). (Z grade).

450. PHARMACY PRACTICE I. To provide the student with fundamentals of practice research, diagnostic laboratory tests, nursing home, and hospital pharmacy practice. (2).

451. PHARMACY PRACTICE II. To provide the student with essential skills for ambulatory pharmacy practice, pharmaceutical care, and patient self-care. (2).

455. PRACTICE SKILLS LABORATORY III. This course is the third of a five course series and provides continuous development of practice skills and behaviors introduced in the first professional year curriculum. The course emphasizes active learning for integration and application of curricular content and incremental development of professional and general abilities. Prerequisite: PY2 Classification. (2).

456. PRACTICE SKILLS LABORATORY IV. This course is the fourth of a five course series and provides continuous development of practice skills and behaviors introduced in the first professional year curriculum. The course emphasizes active learning for integration and application of curricular content and incremental development of professional and general abilities. Prerequisite: PRCT 455. (2).

477. INSTITUTIONAL PHARMACY PRACTICE II. An introduction (one-week, 40 contact hours) to patient care and related activities in an institutional pharmacy practice setting. Prerequisite: PRCT 375, 376. (1).

478. COMMUNITY PHARMACY PRACTICE II. An introduction to patient care and related activities in a community pharmacy practice setting. Prerequisite: PRCT 375, 376, 477. (1).

541, 542. PROBLEMS IN CLINICAL PHARMACY. Individual investigation of problems of current clinical interest in pharmacy. (1-3, 1-3).

543. COMMUNITY PHARMACY PRACTICE III. An introduction (10 weeks, 4 contact hours/week) to patient care and related activities in a community pharmacy practice setting with additional emphasis in ambulatory care practice experiences. Prerequisite: PRCT 477, 478. (1).

544. INSTITUTIONAL PHARMACY PRACTICE III. An introduction (10 weeks, 4-hour contact hours/week) to patient care and related activities in an institutional pharmacy practice setting with additional emphasis in inpatient specialty pharmacy practice experiences. Prerequisite: PRCT 477, 478. (1).

545. SPECIALLY PHARMACY PRACTICE ELECTIVE. An introduction (one week, 40 contact hours) to patient care and related activities in a specialty pharmacy practice experience. Prerequisite: PRCT 477, PRCT 478. (1).

552. PREVENTIVE MEDICINE AND PUBLIC HEALTH. This course will teach the students about concepts of preventive medicine, public health, and epidemiology. Pharmacy students will participate in IPE with professional schools on the UMMC campus. Prerequisite: PY3 Classification. (2).

*553. ADVANCED PRACTICE EXPERIENCE (community). Five-week professional experience program offered at approved community pharmacies. Prerequisite: Pharmacy PY4. (5). (Z grade).

*554. ADVANCED PRACTICE EXPERIENCE (institutional). Five-week professional experience program offered at approved hospital pharmacies. Prerequisite: Pharmacy PY4. (5). (Z grade).

555. PHARMACEUTICAL CARE I: KNOWLEDGE AND COMPREHENSION. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of the core knowledge base required of a pharmacist. Prerequisite: PY3 Classification. Corequisites: PRCT 556, 557. (2).

556. PHARMACEUTICAL CARE I: PROBLEM-SOLVING. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of problem-solving skills. Prerequisite: PY3 Classification. Corequisites: PRCT 555, 556. (2).

557. PHARMACEUTICAL CARE I: GROUP. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of independent learning and communication skills. Prerequisite: PY3 Classification. Corequisites: PRCT 555, 556. (3).
558. PHARMACEUTICAL CARE II: KNOWLEDGE AND COMPREHENSION. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of the core knowledge base required of a pharmacist. Prerequisite: PY3 Classification. Corequisites: PRCT 559, 560. (2).

559. PHARMACEUTICAL CARE II: PROBLEM-SOLVING. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of problem-solving skills. Prerequisite: PY3 Classification. Corequisites: PRCT 558, 560. (2).

560. PHARMACEUTICAL CARE II: GROUP. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of independent learning and communication skills. Prerequisite: PY3 Classification. Corequisites: PRCT 558, 559. (3).

561. PHARMACEUTICAL CARE III: KNOWLEDGE AND COMPREHENSION. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of the core knowledge base required of a pharmacist. Prerequisite: PY3 Classification. Corequisites: PRCT 562, 563. (2).

562. PHARMACEUTICAL CARE III: PROBLEM-SOLVING. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of problem-solving skills. Prerequisite: PY3 Classification. Corequisites: PRCT 561, 563. (2).

563. PHARMACEUTICAL CARE III: GROUP. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of independent learning and communication skills. Prerequisite: PY3 Classification. Corequisites: PRCT 561, 562. (3).

564 PHARMACEUTICAL CARE IV: KNOWLEDGE AND COMPREHENSION. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of the core knowledge base required of a pharmacist. Prerequisite: PY3 Classification. Corequisites: PRCT 565, 569. (2).

565. PHARMACEUTICAL CARE IV: PROBLEM-SOLVING. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of problem-solving skills. Prerequisite: PY3 Classification. Corequisites: PRCT 564, 569. (2).

566. SEMINAR SKILLS DEVELOPMENT FOR HEALTH PROFESSIONALS. Course on developing the basic skills needed for effective presentation of pharmacy-oriented material. Prerequisite: PY4 Classification. (1). (Z grade).

567. SEMINAR SKILLS DEVELOPMENT FOR HEALTH PROFESSIONALS II. Continuation of PRCT 566. Course on developing the basic skills needed for the effective presentation of pharmacy-oriented material. Prerequisite: PRCT 566. (1). (Z grade).

569. PHARMACEUTICAL CARE IV: GROUP. A course designed to integrate clinical and scientific disciplines using patient cases as the basis for group discussions. Emphasis is placed on the development of independent learning and communication skills. Prerequisite: PY3 Classification. Corequisites: PRCT 561, 562. (2).

577. PRACTICE SKILLS LABORATORY V. This course is the fifth in a five course series. The purpose of this course is to offer students an expansion on abilities practiced in previous Practice Skills Laboratories at a level commensurate with the PY3 year in the University of Mississippi School of Pharmacy. Completion of Practice Skills Laboratory V will assist in the achievement of each of the 11 core domain competencies required by the ACPE Accreditation Standards and Guidelines Appendix D prior to commencement of fourth year Advanced Pharmacy Practice Experiences. This course aims to fulfill domain competencies in a hands-on, practical manner, with an emphasis on skills needed in situations students are likely to encounter in their APPEs. Each activity addresses two or more core domains, with a focus on augmenting clinical knowledge with practical skills needed in various pharmacy settings. Prerequisite: PY3 Classification. (2).

*586. ADULT MEDICINE ADVANCED PRACTICE EXPERIENCE. A required experiential course designed to provide in-depth experience and clinical competence in dealing with acutely ill patients in a hospital environment with emphasis on rational therapeutics. Prerequisite: Pharmacy PY4. (5).

*587. AMBULATORY CARE ADVANCED PRACTICE EXPERIENCE. A required experiential course in which students gain clinical experience and competence with ambulatory patients by participating as a drug consultant and primary care provider for patients in an outpatient environment. Prerequisite: Pharmacy PY4. (5).

*591, 592, 593. ELECTIVE ADVANCED PRACTICE EXPERIENCE. Five-week blocks of practical experience in specialty practice areas under the coordination of a faculty preceptor. Course may be taken three times for elective credit in specialty area of choice. Prerequisite: Pharmacy PY4. (5).

*AMBC 591. AMBULATORY CARE ADVANCED PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in ambulatory care patients. Prerequisite or corequisite: PRCT 587, Pharmacy PY4. (5).

*ASSN 591. STATE ASSOCIATION MANAGEMENT ADVANCED PHARMACY PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a nontraditional setting of association management. Prerequisite: Pharmacy PY4. (5).

*BARI 591. BARIATRICS PRACTICE EXERPEINCE ELECTIVE. An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a patient care setting of bariatrics. Prerequisite: Pharmacy PY4. (5).

*BIOT 591. BIOTECH PHARMACY SERVICES ADVANCED PHARMACY PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a nontraditional setting in biotechnology. Prerequisite: Pharmacy PY4. (5).

*CARD 591. CARDIOLOGY ADVANCED PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in cardiology patients. Prerequisite: Pharmacy PY4. (5).

*COMM 591. COMMUNITY PHARMACY ADVANCED PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in patients in a community-practice setting. Prerequisite or corequisite: PRCT 553, Pharmacy PY4. (5).
**CRIT 591. CRITICAL CARE ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in critical care patients. Prerequisite: Pharmacy PY4. (5).

**DINF 591. DRUG INFORMATION ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the utilization of drug information resources, both electronic and nonelectronic, in providing optimal patient care. Prerequisite: Pharmacy PY4. (5).

**EMER 591. EMERGENCY MEDICINE ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents in the emergency care setting. Prerequisite: Pharmacy PY4. (5).

**GERA 591. GERIATRICS ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in geriatric patients. Prerequisite: Pharmacy PY4. (5).

**HOME 591. HOME INFUSION ADVANCED PHARMACY PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a non-direct patient care setting of home infusion. Prerequisite: Pharmacy PY4. (5).

**INAD 591. INSTITUTIONAL ADMINISTRATION ADVANCED PHARMACY PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to institutional administration. Prerequisite: Pharmacy PY4. (5).

**INDY 591. PHARMACEUTICAL INDUSTRY ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the role and functions of the pharmaceutical industry in providing health care professionals medication information. Prerequisite: Pharmacy PY4. (5).

**INFD 591. INFECTIOUS DISEASES ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in infectious disease patients. Prerequisite: Pharmacy PY4. (5).

**INOP 591. INSTITUTIONAL OUT-PATIENT PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a patient care setting of institutional outpatient management. Prerequisite: Pharmacy PY4. (5).

**MANC 591. MANAGED CARE ADVANCED PRACTICE EXPERIENCE.** An elective experiential education course consisting of a full-time five-week experience emphasizing the role of managed healthcare delivery systems, the roles and responsibilities of pharmacy benefits management companies, and basic business and economic concepts. Prerequisite: Pharmacy PY4. (5).

**MGMT 591. PHARMACY MANAGEMENT ADVANCED PHARMACY PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a nontraditional setting of association management. Prerequisite: Pharmacy PY4. (5).

**MEDC 591. MEDICINE ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in medicine patients. Prerequisite or corequisite: PRCT 586, Pharmacy PY4. (5).

**NEON 591. NEONATOLOGY ADVANCED PHARMACY PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a patient care setting of neonatology. Prerequisite: Pharmacy PY4. (5).

**NEUR 591. NEUROLOGY ADVANCED PRACTICE EXPERIENCE.** An experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in neurology patients. Prerequisite: Pharmacy PY4. (5).

**NUCL 591. NUTRITION ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a nontraditional setting of nuclear medicine. Prerequisite: Pharmacy PY4. (5).

**NUTR 591. NUTRITION ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of nutritional support in patient care. Prerequisite: Pharmacy PY4. (5).

**ONCT 591. ONCOLOGY ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in oncology patients. Prerequisite: Pharmacy PY4. (5).

**PAIN 591. PAIN MANAGEMENT ADVANCED PHARMACY PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a patient care setting of pain management. Prerequisite: Pharmacy PY4. (5).

**PEDG 591. PEDAGOGY ADVANCED PRACTICE EXPERIENCE.** A five-week (40 hours/week) elective experiential rotation in an academic setting that provides senior professional students with opportunities to explore issues in teaching and learning, and to participate directly in facilitating the learning of junior students in the pharmacy professional program. Registrants will be introduced to various teaching methods, including problem based learning and other practice based skills. Registrants will have opportunities to develop and improve teaching skills, with emphasis in evaluation and assessment. Prerequisite: Pharmacy PY4. (5).

**PEDS 591. PEDIATRIC ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in pediatric patients. Prerequisite: Pharmacy PY4. (5).

**PKIN 591. PHARMACOKINETICS ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the applied use of pharmacokinetic principles in providing optimal patient care. Prerequisite: Pharmacy PY4. (5).

**POIS 591. POISON CONTROL ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the role and function of a Poison Control Center. Prerequisite: Pharmacy PY4. (5).

**PMTM 591. PHARMACY MEDICATION THERAPY MANAGEMENT PATIENT CARE ADVANCED PHARMACY PRACTICE EXPERIENCE.** An advanced practice elective experiential course designed to provide the student with practical experience in the profession of pharmacy. The course consists of interactions with both patients and healthcare workers across multiple disciplines. Prerequisite: PY4. (5).

**PSYC 591. PSYCHIATRY ADVANCED PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in psychiatric patients. Prerequisite: Pharmacy PY4. (5).

**PUBH 591. PUBLIC HEALTH ADVANCED PHARMACY PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a nontraditional setting of public health. Prerequisite: Pharmacy PY4. (5).

**RSCH 591. RESEARCH ADVANCED PHARMACY PRACTICE EXPERIENCE.** An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a nontraditional setting of pharmacy-related research. Prerequisite: Pharmacy PY4. (5).
SURG 591. SURGERY ADVANCED PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure emphasizing the rational use of therapeutic agents and disease management in surgery patients. Prerequisite: Pharmacy PY4. (5).

TRAN 591. ORGAN TRANSPLANT ADVANCED PHARMACY PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a patient care setting of organ transplantation. Prerequisite: Pharmacy PY4. (5).

VETP 591. VETERINARY MEDICINE ADVANCED PHARMACY PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a nontraditional setting of veterinary medicine. Prerequisite: Pharmacy PY4. (5).

WOMH 591. WOMEN’S HEALTH ADVANCED PHARMACY PRACTICE EXPERIENCE. An elective experiential course consisting of a full-time five-week exposure to pharmacy practice in a patient care setting of women’s health. Prerequisite: Pharmacy PY4. (5).

599. CLINICAL TRIAL SKILLS. Course instructs how to assess and perform multiple types of clinical trials, and follow up with statistical analysis and publication of results. Prerequisite: PRCT 586. (3).

PHARMACY PRACTICE DEPARTMENT FACULTY

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Laurie W. Fleming, Pharm.D., BCACP

Clinical Instructors
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Cheri Atwood, B.S.Ph.
Bill Austin, B.S.Ph.
Gary Austin, Pharm.D.

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
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<th>Tony Hardee, B.S.Ph.</th>
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<th>Jennifer Wilson, Pharm.D.</th>
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<td>Justin Harrison, Pharm.D.</td>
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