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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general information

The University of Mississippi
Medical Center
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), of the University presently serves over 3,000 students through the School of Medicine, established in 1955; the School of Nursing (1958), the School of Health Related Professions (1971); the School of Pharmacy (1971); the School of Dentistry (1973); the School of Graduate Studies in the Health Sciences (2001); and the School of Population Health (2016).

UNIVERSITY OF MISSISSIPPI MEDICAL CENTER MISSION STATEMENT
The mission of the University of Mississippi Medical Center is to improve the health and well-being of patients and the community through excellent training for health care professionals, engagement in innovative research and the delivery of state-of-the-art health care.

UNIVERSITY OF MISSISSIPPI MEDICAL CENTER VISION
The University of Mississippi Medical Center will be a premier academic health sciences system that is recognized nationally for high-quality clinical care, for innovative research and for training committed health care professionals who work together to improve health outcomes and eliminate health disparities.

ACCREDITATION
As the academic health sciences campus of the University of Mississippi, UMMC functions as a separately accredited, semi-autonomous unit responsible to the chancellor of the university and through him to the constitutionally established Board of Trustees of State Institutions of Higher Learning. The University of Mississippi Medical Center is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) to award bachelor’s, master’s and doctorate degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097 or call (404) 679-4500 for questions about the accreditation of the University of Mississippi Medical Center. For academic questions about the University of Mississippi Medical Center, such as admission requirements, financial aid and educational programs, visit online or call (601) 984-5009.

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 Population Health. Although the School of Pharmacy is based on the Oxford campus, students receive their final two years of clinical training at the Medical Center. The main campus and clinics of UMMC have grown to over 4 million feet of space and UMMC continues to expand services throughout the State by opening clinics and through collaboration with other providers.

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 Kathy and Joe Sanderson Tower); 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, University Heart, Translational Research Facility and the Phil Bryant Medical Education building. A parking garage was recently completed. 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, hospitals in Grenada and Lexington and clinics along the Mississippi Gulf Coast, North Mississippi and other parts of the state. UMMC realizes that exercise and nutrition are essential to health. The addition of the University Wellness Center located in Flowood brings the mission of a healthier Mississippi full circle.

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER AND HEALTH SYSTEM — The 697-bed UMMC Health System is the teaching enterprise for the Medical Center’s educational programs and the state’s principal diagnostic and referral center. The health system is comprised of six hospitals, including University Hospital, Children’s of Mississippi, the Wallace Conerly Hospital for Critical Care, the Winfred L. Wiser Hospital for Women and Infants, UMMC Grenada and UMMC Holmes County. The UMMC Health System serves outpatients in more than 50 ambulatory facilities across the state, with a primary presence in the counties of Hinds, Jackson, Rankin, Grenada and those along the Mississippi Gulf Coast.

Located in Jackson, UMMC encompasses seven health science schools, including medicine, nursing, health related professions, dentistry, pharmacy, graduate studies and population health. The Medical Center’s health care enterprise includes the state’s only Level I trauma center, only children’s hospital, and only organ and bone marrow transplant program. The Medical Center also is home to a Telehealth Center of Excellence, one of two in the nation.
As the state’s only academic medical center, the system focuses on quality, measurable improvements in health care and the health status of targeted patient groups. The organization strives to be the leader in the delivery of high quality, value-based care for all Mississippians. UMMC unites the interrelated activities of education in the health sciences and has responsibility for teaching, research and clinical service. UMMC utilizes efforts to make changes that will lead to better patient outcomes, system performance, enhanced teaching and professional development.

AFFILIATED HOSPITALS — The G.V. “Sonny” Montgomery Veterans Affairs Medical Center of Jackson is the principal teaching affiliate for the Medical Center. The Addie McBryde Rehabilitation Center for the Blind and Methodist Rehabilitation Center adjoin the Medical Center. UMMC also has relationships with Anderson Regional Medical Center in Meridian, Oktibbeha County Hospital Regional Medical Center in Starkville, Southwest Mississippi Regional Medical Center in McComb, Vanderbilt University in Nashville and the Mayo Clinic in Rochester, Minn.

NORMAN C. NELSON STUDENT UNION — The Norman C. Nelson Student Union houses the bookstore, convention facilities, food services and student facilities. Student facilities include conference room, study rooms, recreational areas, gymnasium, running track, aerobics room, exercise facilities, locker room and equipment checkout. The ASB suite, located on the second floor, is available 24/7 for student study.

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 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 are 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.

ACADEMIC PROGRAMS

SCHOOL OF DENTISTRY — The School of Dentistry offers a four-year course of instruction leading to the degree of Doctor of Dental Medicine (DMD), a two-year course of instruction leading to a Bachelor of Science degree in Dental Hygiene (traditional program), and an Advanced Standing Bachelor of Science degree in Dental Hygiene. The Advanced Standing Dental Hygiene program is an online program offered across five semesters for students who have already completed a dental hygiene certificate program.

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, and Clinical Investigation) and the Doctor of Philosophy (Biomedical Materials Science -program no longer accepting new graduate students, Biomedical Sciences, Cell and Molecular Biology, Clinical Anatomy, Experimental Therapeutics and Pharmacology, Microbiology and Immunology, Neuroscience, Nursing, Pathology -program no longer accepting new students, and Physiology and Biophysics). A combined MD/PhD program is offered in collaboration with the School of Medicine.

SCHOOL OF HEALTH RELATED PROFESSIONS — The School of Health Related Professions offers programs leading to the Certificate in Direct Operational Medical Support, and Medical Scribe Specialist, Bachelor of Science in Health Informatics and Information Management, Health Sciences (program no longer accepting new students), Health Systems Administration Histotechnology, Medical Laboratory Science and Radiologic Sciences, Post-Baccalaureate Certificate in Health Informatics, Leadership and Management, and Medical Scribe Specialist (program no longer accepting new students), Master of Science in Magnetic Resonance Imaging and in Nuclear Medicine Technology, Master of Health Informatics and Information Management, Master of Health Sciences (program no longer accepting new students), Master of Health Systems Administration, Doctor of Health Administration, Doctor of Occupational Therapy, 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 and in collaboration with the School of Population Health.

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, family psychiatric mental health nurse practitioner, neonatal nurse practitioner, nurse educator, nursing and health care administrator, adult-gerontology (primary care) nurse practitioner and primary/acute care pediatric 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.

SCHOOL OF POPULATION HEALTH — The School of Population Health offers programs leading to a Master of Science in Biostatistics and Data Science, Population Health Science, and an Executive Master of Science in Population Health Management. The school offers programs leading to a Doctor of Philosophy in Biostatistics and Data Sciences and Population Health Science. A combined MD/PHD program is offered in collaboration with the School of Medicine.

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.

ACT SUPER SCORES

Effective July 1, 2020, all programs at UMMC with an ACT admission score requirement will accept an ACT Super Score. Please visit the ACT website for more information regarding ACT Super Score options and reports.

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 Enrollment Management 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>
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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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</tbody>
</table>

Graduate students enrolled in traditional research-based graduate degree programs (those requiring a thesis or dissertation) are considered full-time students if they are enrolled in 9 credit hours in a semester, except for the summer term when 1 credit hour is sufficient. Additionally, graduate students who are admitted to candidacy and are working on their thesis/dissertation may be classified as full-time while registering for 1 credit hour in any semester. Students and advisors must complete the required Approval to Register form online.

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 for the current academic year can be found on the institutional website.

By registering for classes, students acknowledge that they are entering into a legally binding contract to pay all tuition and fees, including late fees and service charges on past due accounts, as well as collection and legal fees incurred in the collection of unpaid accounts referred to an outside agency for collection. Tuition, fees and optional insurance and bookstore charges are charged to the students’ tuition accounts and can be viewed at any time in the MyU portal. Billing statements are sent out via UMC email. Students are expected regularly to check their UMC email.

Tuition is due in full by the term payment deadlines which are: June 15 for the summer term, September 30 for the fall term, and February 15 for the spring term. Insurance charges applied after the term deadlines are due by the effective date of the coverage. Students who plan for financial aid to pay their accounts are expected to finalize their application and other obligations in time for their aid to be disbursed by the term payment deadlines. Failure to do so may result in the penalties outlined below.

The penalties for not paying tuition and related charges on time are as follows:

- The account will be considered delinquent and the student’s records placed on hold. The student will not be allowed to register for another academic term, see grades or request a transcript until the account is paid in full.
- The account will be charged a $100 late fee.
- The account will be charged monthly service charges at an annual rate of 18%.
- Accounts unpaid by the end of the semester may be referred to an outside collection agency, reported to the credit bureaus, and incur collection fees unless satisfactory payment arrangements have been made. If the student fails to make the arranged payments the account will then be turned over to the collection agency as outlined above.

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— Students who withdraw, take a leave of absence or are dismissed during an academic term may still be responsible for payment of all or part of the tuition and fees assessed for that term. The refund schedule for cancellation of enrollment after the term begins is as follows:

- 100% tuition refund if courses dropped through the official last day to withdraw from a course without receiving a withdrawal grade. (Note: this date is included in the academic calendar.)
- From the end of the 100% refund period until the student has completed 60% of the academic term, tuition refunds will be prorated according to the percentage of the term the student has completed. For example, if the student completes only 45% of the term before enrollment is terminated, 55% of their tuition would be refunded.
- After a student has completed 60% of the academic term for which they are registered, no tuition refunds will be given.

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.

COST OF ATTENDANCE
The University of Mississippi Medical Center uses estimated cost of attendance (COA) and a student's FAFSA information to determine financial aid eligibility. The COA is calculated by combining a student's total direct costs (these include fixed costs for tuition/fees and books/supplies, which are charged directly to that student's UMMC financial aid account) with total indirect costs. Indirect costs represent additional costs that are likely to be incurred during a course of study at UMMC. These may vary depending on personal circumstances and are estimates intended only to guide overall financial planning and are not charged by UMMC. To view UMMC's cost of attendance (COA) please visit this website.

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 Enrollment Management.

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 student; 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 in 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 Enrollment Management 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 Office of Academic Affairs, the Office of Student Affairs, Office of eCampus, the individual schools, the Office of Academic Support, Office of Student Financial Aid, the Office of Student Accounting, the Office of Enrollment Management, Student and Employee Health and Campus Policy and Security. 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, School of Pharmacy, and School of Population Health.

ACADEMIC AFFAIRS — The Division of Academic Affairs promotes excellence and integrity in all academic programs, provides support for faculty positions, learners for success, and ensures compliance with applicable regulatory standards. This scope of work encompasses instructional methodology, learning effectiveness, resources for faculty development, maintenance of traditional student services, opportunities for interprofessional training, and programs for life-long learning. To achieve these ends, services are offered through the following offices: Assessment, Academic Effectiveness, Academic Affiliations, Academic Support, Basic and Advanced Resuscitation Training Center, Community Engagement and Service Learning, Continuing Health Professional Education,
ACADEMIC SUPPORT - The Office of Academic Support provides the following University of Mississippi Medical Center support services.

Academic Consulting Services. Academic Consulting Services are available to students, residents and fellows 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 (e.g., time management, study skills, and testing strategies). To make an appointment, complete the Request Academic Consultation online form on the website.

Academic Success Kiosk. The Academic Success Kiosk (ASK) is an online, self-paced resource available to students at the University of Mississippi Medical Center. ASK addresses time management, study skills, and professionalism. To register, complete the Register for ASK online form. http://www.umc.edu/ASK/

University Tutoring Services. University Tutoring Services is a peer tutoring program available to students experiencing academic difficulty who are currently enrolled in the University of Mississippi Medical Center. Supportive instruction is provided by peers with similar educational backgrounds. To request tutoring, complete the Request Tutoring online form on the website.

Writing Support Services. Writing Support Services are available to students at the University of Mississippi Medical Center. Writing coaches are available to assist students with assigned coursework and papers. The goal is to add value to the educational experience through writing critique and support. To request writing support, complete the Request Writing Support online form on the website.

Academic Accommodations. The Office of Academic Support manages academic accommodations at the University of Mississippi Medical Center. Students in the School of Pharmacy should apply for academic accommodations through the University of Mississippi, Oxford Campus. 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). For more information, individuals should review the Office of Academic Support webpage or contact Academic Accommodations via phone: (601) 984-6800 (4-CARE) or email: AcademicAccommodations@ummc.edu.

Office of Academic Support
University of Mississippi Medical Center
Verner Holmes Learning Resource Center, U155-A
Phone: 601-815-5064 • Fax: 601-815-5828
http://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) using the Medical Center’s Federal School Code number 004688, apply for a FSA User Id at Federal PIN Website, and complete required loan counseling at Federal Student Loans Website. For detailed information regarding the Office of Student Financial Aid’s various programs, procedures, and policies, please visit their website.

FOOD SERVICES — Students may find a variety of food service options within the Medical Center, including the University Hospital Cafeteria, Winfred L. Wiser Hospital Dining Room, Methodist Rehabilitation Center Cafeteria, Norman C. Nelson Student Union Commons, Chick Fil A, McDonalds and Subway.

POSTAL SERVICES — A contract station of the U.S. Post Office is located on campus and offers most standard services.

SECURITY — The UMMC Campus Police provides service and protection to the Medical Center’s students, faculty, staff, properties and campus. The publication, Guidelines for Campus Safety, lists the services provided by UMMC police as they strive to ensure a high quality of student-faculty life by promoting a tranquil, safe atmosphere conducive to the objectives of the Medical Center.

STUDENT HEALTH
Student and Employee Health provides occupational health services such as tuberculosis testing and required immunizations (some services involve a charge). Initial assessment and management of “workplace” injuries (including blood borne pathogen exposures) in students during normal office hours is provided in Student and Employee Health at no cost to students, although there may be a charge for lab work, imaging studies, or other such services, or if referral for additional care is needed. Care for severe workplace injuries or those occurring after hours or on weekends can be obtained from the UMMC Emergency Department. Students may obtain ambulatory medical care (sick care) at the Quick Care Clinic, located on the 2nd Floor, 764 Lakeland Drive, Jackson, MS. The physician and mid-level providers at the Quick Care Clinic do not teach, evaluate or make recommendations for student advancement. Students should call (601) 984-6800 (4-CARE) for appointments. Emergency service is provided in the University Hospital emergency department after regular clinic hours, at nights and on weekends. Mental health services are provided at the Student Counseling and Wellness Center (SCWC) by a psychiatrist and clinical psychologist who do not have any role any student’s academic assessment or evaluation. Students should call (601) 815-1136 to make appointments at the SCWC.
DRUG POLICY — Pursuant to the Anti-Drug Abuse Act passed in October 1988 and the Drug-Free Schools and Communities Act Amendments of 1989 (Public Law 101-226), the Medical Center is committed to maintaining a drug-free work place and to prevent the illicit use of drugs and the abuse of alcohol by students and employees. All students are to abide with this policy. The institution has educational resources available for students regarding the dangers of alcohol and illicit drug abuse through Employee and Student Health Services.

Policy:

1. You are prohibited from being under the influence of alcohol or illegal drugs while on campus, in other training sites, such as affiliated hospitals and clinics, and in extramural settings for elective courses.
2. The possession, transfer, purchase or sale of illegal drugs is a violation of the law and is strictly prohibited; such action will be reported to law enforcement officials and to licensing agencies when appropriate.
3. The use, sale or possession of an illegal drug in your capacity as a student is cause for your dismissal from school.
4. 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.
5. No alcoholic beverage may be brought or consumed on the Medical Center premises.
6. Prescription drugs may be brought and used by you on the Medical Center premises only in the manner, combination and quantity prescribed, as long as your ability to perform as a student is not affected.
7. Any student who’s on-or off-duty abuse of alcohol, illegal drugs or improper use of prescription drugs interferes in any way with his/her performance as a student will be referred to Student and Employee Health Services for evaluation and/or testing.

HEALTH INSURANCE — Hospitalization insurance is mandatory for all students attending the University of Mississippi Medical Center with the following exception. Students enrolled in distance education programs with no clinical or research components requiring the physical presence of students on any UMMC campus are not required to show evidence of health insurance, and are not eligible to apply for coverage on the UMMC student insurance plans. These programs include the following: SOD – Advanced Standing Dental Hygiene; SGSBS – Biochemistry Certificate; SHRP – Advanced Standing Bachelor of Science in Radiologic Sciences, Bachelor of Science in Health Sciences, Bachelor of Science in University Studies, Post-Baccalaureate Certificate in Health Informatics; SOPH – Master of Science in Population Health Science, Executive Master of Science in Population Health Management.

All students, except those enrolled in the programs noted above, may enroll in one of the group plans offered by the Medical Center or must demonstrate comparable coverage under another provider. Students not enrolled in the Medical Center’s student group health insurance plan will be required to complete a waiver online in the student portal specifying the name of their insurance carrier. The student insurance plan is administered by the Office of Student Accounting, and any questions regarding enrollment or coverage should be addressed directly to Student Accounting.

APPLICATION 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. Eligible students 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. 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 and may be made at any time by contacting the Student Accounting Office.

Cancellation of Coverage must be made through the Office of Student Accounting. 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 Office of Student Accounting, 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 Student and Employee Health.
Confidentiality

medical care, consultation and counseling through UMMC Quick Care or the student’s personal primary care clinic. Questions regarding these safety guidelines should be directed to Student and Employee Health or 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 Student and Employee Health or to the dean of the school in which the student is enrolled.

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 Student and Employee Health 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, Pharmacy, and Population Health the ASB meets with and provides information and opinions...
of student concern to the Medical Center administration and faculty. The 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: 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.

DIVERSITY AND INCLUSION — Diversity and inclusion are integral to the core mission and vision of the University of Mississippi Medical Center (UMMC) and its three mission areas — health care, research, and education. UMMC commits to attracting and retaining a diverse and inclusive workforce and student body in order to achieve mission-driven outcomes among the UMMC community. In addition, teaching, curricula, and learning environments must foster a culture of inclusiveness where individuals are respected and differences are recognized as strengths that enhance the educational and patient-care experience.

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.

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 Enrollment Management, 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.

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 Enrollment Management 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 provides equal opportunity in any employment practice, education program, or education activity to all qualified persons. The Medical Center complies with all applicable laws regarding equal opportunity and affirmative action and does not unlawfully discriminate against any employee, student, or applicant based upon race, color, gender, sex, sexual orientation, gender identity or expression, religion, creed, national origin, age, disability, veteran status, marital status, socio-economic status, culture, or genetic information. Inquiries or complaints may be referred to the Office of the Director, Employee Relations, 2500 N. State Street, Jackson, MS 39216-4505.
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, 2027:**
- Dr. Steven Cunningham, Hattiesburg, Southern Supreme Court District
- Jeanne Luckey, Ocean Springs, Southern Supreme Court District
- Bruce Martin, Meridian, Central Supreme Court District
- Powell “Gee” Ogletree, Jr., Jackson, Central Supreme Court District

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

**Members whose terms expire May 7, 2021:**
- Ann Lamar, Senatobia, 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

**Officers of the Board**
- Dr. Ford Dye III, President
- Dr. J. Walt Starr, Vice President
- Dr. Alfred Rankins, Jr., Commissioner of Higher Education
ADMINISTRATION

VICE CHANCELLOR
LouAnn Woodward, MD, Vice Chancellor for Health Affairs and Dean of the School of Medicine

EXECUTIVE OFFICERS
Molly Brasfield, MS, Chief Human Resources Officer
Ralph Didlake, MD, Associate Vice Chancellor for Academic Affairs and Chief Academic Officer
Thomas H. Fortner, MBA, Chief Institutional Advancement Officer
Alan Jones, MD, Assistant Vice Chancellor for Clinical Affairs
Charles O’Mara, MD, Associate Vice Chancellor for Clinical Affairs
Brian Rutledge, PhD, Chief of Staff, Office of the Vice Chancellor
William Smith III, JD, General Counsel and Chief Legal Officer
Richard Summers, MD, Associate Vice Chancellor for Research
Juanyce Taylor, PhD, Chief Diversity and Inclusion Officer
Nelson Weichold, MHA, Chief Financial Officer
Jonathan Wilson, PhD, Chief Administrative Officer

ACADEMIC OFFICERS
Jessica H. Bailey, PhD, Dean of the School of Health Related Professions
David Felton, DMD, Dean of the School of Dentistry
Natalie W. Gaughf, PhD, ABPP, Interim Dean, School of Population Health
Joey Granger, PhD, Dean of the School of Graduate Studies in the Health Sciences
Loretta Jackson-Williams, MD, Vice Dean for Medical Education, School of Medicine
Leigh Ann Ross, PharmD, Associate Dean for Clinical Affairs, School of Pharmacy
Julie Sanford, DNS, Dean of the School of Nursing
POSTGRADUATE EDUCATION

MEDICAL RESIDENCIES AND FELLOWSHIPS
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
- Cardiothoracic Anesthesiology
- Pain Management
- Pediatric Anesthesiology

Dermatology
- Dermatopathology
- Micrographic Surgery & Dermatologic Oncology

Emergency Medicine
- Emergency Medical Services

Family Medicine

Medicine
- Internal Medicine
- Medicine/Pediatrics
- Allergy/Immunology
- Adult Congenital Heart Disease
- Advanced Heart Failure & Transplant Cardiology
- Cardiovascular Diseases
- Interventional Cardiology
- Endocrinology
- Gastroenterology
- Geriatrics
- Hematology/Oncology

Hospice & Palliative Care
- Infectious Diseases
- Nephrology
- Pulmonary/Critical Care
- Rheumatology
- Medical Genetics and Genomics
- Neurology
- Neuro-Critical Care
- Neuropysiology
- Neumuscular Medicine
- Neurophysiology
- Vascular Neurology
- Neurosurgery
- Obstetrics and Gynecology
- Maternal-Fetal Medicine
- Ophthalmology
- Orthopedic Surgery
- Hand Surgery
- Otolaryngology
- Pathology (Anatomic/Clinical)
- Cytopathology
- Pediatrics
- Pediatric Cardiology
- Pediatric Critical Care
- Pediatric Emergency Medicine
- Pediatric Hematology/Oncology
- Neonatal-Perinatal Medicine
- Pediatric Neurology
- Plastic Surgery - Integrated
- Hand Surgery
- Preventive Medicine
- Psychiatry
- Child and Adolescent Psychiatry
- Sleep Medicine
- Radiation Oncology
- Radiology
- Interventional Radiology – Independent
- Interventional Radiology – Integrated
- Neuroradiology
- Surgery (General)
- Pediatric Surgery
- Surgical Critical Care
- Thoracic Surgery
- Urology
- Vascular Surgery

PSYCHOLOGY
A residency in health service psychology, accredited by the American Psychological Association, is offered. The program is one year in duration starting July 1. Visit the Psychology Internship Training Program website at www.umc.edu/psychology-internship for applications, information and program details.

DENTISTRY
The School of Dentistry offers a one-year general practice residency, 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 on these programs, visit the School of Dentistry website at www.umc.edu/sod.

SCHOOL OF HEALTH RELATED PROFESSIONS
The Department of Physical Therapy offers three residency programs, one in Neurologic Physical Therapy, one in Sports Physical Therapy, and one in Pediatric Physical Therapy; however, these programs are not currently accepting applicants for the 20-21 academic year.

- The Neurologic Physical Therapy residency program is a cooperative effort between the University of Mississippi Medical Center, the School of Health Related Professions, Methodist Rehabilitation Center, and St. Dominic Outpatient Rehabilitation Services. This program is 12 months in duration, beginning in August and ending the following August. The neurologic residency program is accredited by the American Board of Physical Therapy Residency and Fellowship Education as a post-professional residency program for physical therapists in neurologic physical therapy. 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, University of Mississippi (Oxford Campus), New Orleans Saints, and local Mississippi high schools and colleges. This program is 14 months in duration, beginning in late June and ending in late August the following year. The sports residency program is accredited by the American Board of Physical Therapy Residency and Fellowship Education as a post-professional residency program for physical therapists in sports physical therapy. 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 residency program in pediatric physical therapy is a cooperative effort between the University of Mississippi Medical Center, UMMC School of Health Related Professions, Batson Children’s Hospital, A Focused Brain, Hinds County School District, Rehabilitation Consultants, and St. Dominic Outpatient Rehabilitation Services. The residency program is 12 months in duration, beginning in August. The residency program was awarded full accreditation by the American Physical Therapy Association, American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE) in May 2019. The program prepares the resident to take the Pediatric Clinical Specialty examination (PCS) offered by the American Board of Physical Therapy Specialties (ABPTS). This program is 12 months in duration, beginning in late August and ending the following August. The program prepares the resident to take the Pediatric Specialty Examination offered by the American Board of Physical Therapy Specialties pursuant to the granting of initial accreditation by the ABPTRFE. 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 Pediatric Physical Therapy Residency website.

The Division of Orthotics and Prosthetics offers two residency programs, one in Orthotics and one in Prosthetics.

The Orthotic and Prosthetic residency programs are each 12 months in duration and typically begin 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.
school of medicine

The University of Mississippi Medical Center
### M1 ACADEMIC CALENDAR

#### FALL SEMESTER

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>August</td>
<td>5</td>
<td>Wednesday, Orientation, CIM, and registration</td>
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<tr>
<td></td>
<td>6</td>
<td>Thursday, White Coat Ceremony</td>
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<tr>
<td></td>
<td>10</td>
<td>Monday, Classes begin</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>Thursday, 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>September</td>
<td>7</td>
<td>Monday, Labor Day Holiday observed</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Tuesday, Classes resume</td>
</tr>
<tr>
<td>November</td>
<td>25</td>
<td>Wednesday, Thanksgiving Holiday begins at 5:00 p.m.</td>
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<tr>
<td></td>
<td>30</td>
<td>Monday, Classes resume</td>
</tr>
<tr>
<td>December</td>
<td>18</td>
<td>Friday, Christmas Holiday begins at 5:00 p.m.</td>
</tr>
<tr>
<td>January</td>
<td>3</td>
<td>Sunday, End of Fall Semester</td>
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</tbody>
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#### SPRING SEMESTER

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>January</td>
<td>4</td>
<td>Monday, Classes Begin</td>
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<tr>
<td></td>
<td>18</td>
<td>Monday, Martin Luther King’s Birthday Holiday observed</td>
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<tr>
<td></td>
<td>19</td>
<td>Tuesday, Classes resume</td>
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<tr>
<td></td>
<td>28</td>
<td>Thursday, Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
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<td></td>
<td>28</td>
<td>Thursday, Primary Care Day</td>
</tr>
<tr>
<td>February</td>
<td>22</td>
<td>Monday, Student Financial Wellness Seminar</td>
</tr>
<tr>
<td>March</td>
<td>17</td>
<td>Tuesday, Spring Holiday begins at 5:00 p.m.</td>
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<tr>
<td></td>
<td>22</td>
<td>Monday, Classes resume</td>
</tr>
<tr>
<td>April</td>
<td>12</td>
<td>Monday, Registration begins for 2021-2022 fall semester</td>
</tr>
<tr>
<td>May</td>
<td>7</td>
<td>Friday, Honors Day</td>
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<td></td>
<td>10</td>
<td>Monday, M1 Wellness Retreat</td>
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<td></td>
<td>25</td>
<td>Tuesday, Last Day of Classes</td>
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<tr>
<td></td>
<td>28</td>
<td>Friday, Commencement</td>
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</tbody>
</table>

### M2 ACADEMIC CALENDAR

#### FALL SEMESTER

<table>
<thead>
<tr>
<th>Month</th>
<th>Day</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>August</td>
<td>3</td>
<td>Monday, Classes Begin</td>
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<tr>
<td></td>
<td>27</td>
<td>Thursday, Last day to withdraw from school or from a course without receiving a withdrawal grade and to receive a tuition refund</td>
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<td>September</td>
<td>7</td>
<td>Monday, Labor Day Holiday observed</td>
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<td></td>
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<td></td>
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<tr>
<td>January</td>
<td>3</td>
<td>Sunday, End of Fall Semester</td>
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#### SPRING SEMESTER

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<tr>
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<th>Event</th>
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<tbody>
<tr>
<td>January</td>
<td>5</td>
<td>Tuesday, Classes Resume</td>
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<tr>
<td></td>
<td>18</td>
<td>Monday, Martin Luther King’s Birthday Holiday observed</td>
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<td></td>
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<td>28</td>
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<tr>
<td>February</td>
<td>22</td>
<td>Monday, Student Financial Wellness Seminar</td>
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<td>March</td>
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<td>April</td>
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<td>Monday, Registration begins for 2021-2022 fall semester</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Thursday, Last Day of Classes</td>
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<tr>
<td></td>
<td>16</td>
<td>Friday, M2 Wellness Retreat</td>
</tr>
<tr>
<td></td>
<td>4/19-5/27</td>
<td>Monday-Friday, Study Days/USMLE Step 1</td>
</tr>
<tr>
<td>May</td>
<td>7</td>
<td>Friday, Honors Day</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Friday, Commencement</td>
</tr>
</tbody>
</table>
### M3 ACADEMIC CALENDAR
June 8, 2020 – May 8, 2021

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day of Week</th>
<th>Event/Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>June</td>
<td>8-12</td>
<td>Monday-Friday</td>
<td>Boot Camp</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>Monday</td>
<td>Clerkships begin</td>
</tr>
<tr>
<td>July</td>
<td>3-5</td>
<td>Friday-Sunday</td>
<td>Independence Day Holiday</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Monday</td>
<td>Clerkships resume</td>
</tr>
<tr>
<td>August</td>
<td>27</td>
<td>Thursday</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>September</td>
<td>7</td>
<td>Monday</td>
<td>Labor Day Holiday observed</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>Tuesday</td>
<td>Clerkships resume at 8:00 a.m.</td>
</tr>
<tr>
<td>November</td>
<td>25</td>
<td>Wednesday</td>
<td>Thanksgiving Holiday begins at 5:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>Monday</td>
<td>Clerkships resume at 8:00 a.m.</td>
</tr>
<tr>
<td>December</td>
<td>18</td>
<td>Friday</td>
<td>Christmas and New Year’s Holidays begin at 5:00 p.m.</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Monday</td>
<td>Clerkships resume</td>
</tr>
<tr>
<td>January</td>
<td>1</td>
<td>Friday</td>
<td>New Year’s Holiday</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Friday</td>
<td>Last day for M3 elective changes</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>Monday</td>
<td>Martin Luther King’s Birthday Holiday observed</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Tuesday</td>
<td>Clerkships resume at 8:00 a.m.</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Thursday</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></td>
<td>29</td>
<td>Friday</td>
<td>M3 Class Meeting</td>
</tr>
<tr>
<td>February</td>
<td>22</td>
<td>Monday</td>
<td>Student Financial Wellness Seminar</td>
</tr>
<tr>
<td>May</td>
<td>7</td>
<td>Friday</td>
<td>Honors Day</td>
</tr>
<tr>
<td>3-14 *</td>
<td>Mon-Fri</td>
<td>Clinical Skills Assessment</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Friday</td>
<td>Commencement</td>
<td></td>
</tr>
</tbody>
</table>

Note:
1) Clinical activities of students may vary and may not conform to this schedule.
2) The required junior medical Clinical Skills Assessment will be scheduled between May 3-14, 2021. Each student will test for one day in this time period. The student will be notified of details regarding scheduling of this required activity.
3) *Dates for the Clinical Skills Assessment are subject to change.

### M4 ACADEMIC CALENDAR
June 29, 2020 – May 16, 2021

#### SUMMER SEMESTER
June | 29  | Monday | Beginning of Senior Year |
July  | 3   | Friday | Independence Day Holiday |

#### FALL SEMESTER
September | 7  | Monday | Labor Day Holiday observed |
November  | 26-27  | Thursday-Friday | Thanksgiving Holidays |
December  | 24-25  | Thursday-Friday | Christmas Holidays |

#### SPRING SEMESTER
January | 1  | Friday | New Year’s Day Holiday |
|        | 4  | Monday | M4 Class Meeting |
|        | 18 | Monday | Martin Luther King's Birthday Holiday observed |
February | 22 | Monday | Student Financial Wellness Seminar |
March  | 19  | Friday | Match Day |
May  | 7   | Friday | Honors Day |
| 27   | Thursday | Long Coat Ceremony |
| 28   | Friday | Commencement |

Note: 1) March 15-18, 2021 Preliminary for SOAP for students who did not match in ERAS
LouAnn Woodward, MD, Dean
Loretta Jackson-Williams, MD, PhD, Vice Dean for Medical Education
David Norris, MD, Assistant Dean for Academic Affairs
Mike McMullan, MD, Associate Dean for Student Affairs
Lyssa Weatherly, MD, Assistant Dean for Student Affairs
Demondes Haynes, MD, Associate Dean for Admissions
Kathryn Schneider, MD, Assistant Dean for Admissions
Patrick Smith, PhD, Associate Dean for Faculty Affairs
Sharon P. Douglas, MD, Associate Dean for Education for VA Affairs
Jimmy Stewart, MD, Associate Dean for Graduate Medical Education
Arthur Calimaran, MD, Assistant Dean for Graduate Medical Education
John 'Brad' Ingram, MD, Assistant Dean for Graduate Medical Education
Joseph Marc. Majure, MD, Assistant Dean for Graduate Medical Education

DEPARTMENTS OF INSTRUCTION

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

CELL AND MOLECULAR BIOLOGY
Jane Reckelhoff, PhD, Professor and Chair

DERMATOLOGY
Robert T. Brodell, MD, Professor and Chair

EMERGENCY MEDICINE
Kendall Mckenzie, MD, Professor and Chair

FAMILY MEDICINE
Shannon Pittman, MD, Professor and Chair

MEDICINE
Javed Butler, MBBS, MPH, MBA Professor and Chair

MICROBIOLOGY AND IMMUNOLOGY
Larry S. McDaniel, PhD, Professor and Chair

NEUROBIOLOGY AND ANATOMICAL SCIENCES
Allan Sinning, PhD, Professor and Interim Chair

NEUROLOGY
Alissa Willis, MD, Professor and Chair

NEUROSURGERY
Chad W. Washington, MS, MPHS, MD, Associate Professor and Chair

OBSTETRICS AND GYNECOLOGY
James M. Tucker, MD, Professor and Chair

OPHTHALMOLOGY
Kimberly Crowder, MD, Professor and Chair

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

OTOLOGY AND COMMUNICATIVE SCIENCES
Scott P. Stringer, MD, MS, Professor and Chair

PATHOLOGY
Timothy Allen, MD, Professor and Chair

PEDIATRICS
Mary B. Taylor, MD, Professor and Chair

PHARMACOLOGY AND TOXICOLOGY
Richard J. Roman, PhD, Professor and Chair

PHYSIOLOGY AND BIOPHYSICS
John E. Hall, PhD, Arthur C. Guyton Professor and Chair

PREVENTIVE MEDICINE
Joshua Mann, MD, MPH, Professor and Chair
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 University of Mississippi School of Medicine is committed to training skilled and compassionate physicians to provide high-quality and equitable health care particularly to the state’s residents, including diverse and underserved populations. The school prepares learners to provide excellent care through programs of innovative education, state-of-the-art research and comprehensive clinical practice.

Vision Statement
A healthier Mississippi and beyond through education, patient care and discovery.

Diversity and Inclusion Statement
The University of Mississippi Medical Center (UMMC) School of Medicine (SOM), part of Mississippi’s only academic health science campus, is committed to the education and training of compassionate, considerate, and competent physicians who provide quality health care aimed at achieving health equity within the state. We believe that the inclusivity of different dimensions of diversity is integral to our missions and we remain committed to fostering a climate of respect, belonging, and excellence in the academic learning environment.

To become culturally responsive to our patients and create a diverse workforce reflective of our state’s population, we concentrate recruitment and retention efforts on groups traditionally underrepresented in medicine which include: Black/African American, Hispanic/Latino, rural, educationally and/or economically disadvantaged students. We utilize pipeline and outreach recruitment programming that provides pre-application counseling, academic preparation, pre-matriculation, and professional development. These efforts are sustained through long-standing partnerships and engagement with school districts and higher education institutions throughout the state and region.

Holistic admissions offers accepted and matriculating students a rich educational experience and brings forth new ideals and diverse perspectives in the learning environment. Academic support and counseling services are strong contributors of student retention. Students are also afforded opportunities to: receive generous scholarship awards; participate in service-learning and community engagement activities; hold leadership positions within their class and the University’s student governing body; be inducted into honor societies; become members of local chapters of national professional organizations; and attend national meetings. Student-elected diversity representatives are tasked with ensuring the interests of all groups within the class are represented, promoting multi-cultural programs and opportunities, and addressing incidences of discrimination or complaints https://umc.edu/comments_and_complaints about cultural sensitivity or inclusion.

The School of Medicine recognizes the educational benefits of diversity among students as well as basic science and clinical faculty, staff, and senior administrators. As has been demonstrated in the literature, a diverse faculty is better equipped to promote an academic learning environment that prepares culturally-competent physicians who are aware of and committed to addressing health disparities and care for patients who are from different backgrounds. As such, the SOM targets the recruitment, retention, and promotion of African Americans and women among faculty and senior administrators. These efforts include support for early and mid-career faculty in professional development.

Our comprehensive academic program is designed to create a physician workforce to address health disparities, develop lifelong learners, contribute to biomedical research, and utilize technology to improve patient care and health outcomes. These goals support our mission of creating a healthier Mississippi.

(Approved by the Executive Faculty Committee, April 28, 2011; Updated by the Executive Faculty Committee, August 20, 2018)

(Reviewed by the Executive Faculty Committee, August 20, 2018)

(Approved by the Executive Faculty, January 24, 2011; Updated by the Executive Faculty, January 4, 2019; Updated by the Executive Faculty, September 16, 2019)
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. Students are required to begin the process for medical licensure while in medical school by taking and passing UMSLE Step 1 and Step 2 CK and CS.

COMBINED DOCTOR OF MEDICINE (MD)/DOCTOR OF PHILOSOPHY PROGRAM (PhD) DEGREE
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 and the School of Population Health. 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 letter of evaluation from someone able to evaluate the applicant’s research potential.
- Adhere to Regular Decision Program (RDP) deadlines.

Applicants to this combined degree program must be sequentially accepted for admission by the Admissions Executive 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.

ACCREDITING BODY
The Liaison Committee on Medical Education (LCME) is officially recognized by the U.S. Department of Education to accredit medical schools in the United States and Canada leading to the MD degree. There is joint oversight by the Association of American Medical Colleges (AAMC) and the American Medical Association (AMA) of the LCME; however, it is an independent organization.

Accreditation, the process of quality assurance in post secondary education, determines whether an institution or program meets established standards for function, structure, and performance. The process also fosters institutional and program improvement. Besides fostering program improvement, accreditation by the LCME establishes eligibility for selected federal grants and programs including Title VII funding, most state boards of medical licensure, eligibility for students to take the United States Medical Licensing Examination, and eligibility for students to enter Accreditation Council for Graduate Medical Education residency programs.

EDUCATIONAL PROGRAM 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 demonstrate sufficient knowledge of the structure and function of the human body to recognize alterations from the normal. They must recognize 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.
- Demonstrate an understanding of the molecular, biochemical and cellular mechanisms which help maintain the body's homeostasis.
- Synthesize 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).
- Demonstrate 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.
II. Graduates must utilize 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:

- Obtain an accurate medical history that covers all essential aspects of the patient’s history, including issues related to age, gender, ethnic, and socioeconomic status.
- Perform both a complete and an organ system specific examination, including one for mental status.
- Perform 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.
- Interpret results of commonly used diagnostic tests and procedures, i.e., laboratory, roentgenographic, electrocardiographic.
- Utilize knowledge of the most frequent manifestations of common disorders.
- Reason deductively in solving clinical problems.
- 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.
- Identify 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.
- Recognize and outline initial management for patients with conditions requiring critical care.
- Apply knowledge about how to relieve pain and ameliorate suffering of patients.
- Communicate effectively, both orally and in writing, with patients, patients' families and health care collaborators.

III. Graduates must demonstrate 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:

- Apply 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.
- Demonstrate honesty and integrity in all interactions with patients, families, colleagues and others with whom physicians must interact in their professional lives.
- Advocate the interests of one’s patients over one’s own interests at all times.
- Analyze the threats to medical professionalism posed by the conflicts of interest inherent in various financial and organizational arrangements for the practice of medicine.
- Evaluate and accept limitations in one’s knowledge and clinical skills, and commit to continuously improve one’s knowledge and abilities.

IV. Graduates must employ 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:

- Identify 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.
- Apply 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.
- 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.
- 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.
- Demonstrate knowledge of various approaches to the organization, financing, and delivery of health care.
- Provide care to patients who are unable to pay and to advocate for access to health care for members of traditionally underserved populations.

V. Graduates must demonstrate the ability to engage in an interprofessional team in a manner that optimizes safe, effective patient- and population-centered care.

At the completion of the medical school curriculum, students must be able to:

- Establish and maintain a climate of mutual respect, dignity, diversity, ethical integrity and trust among health professionals.
- Communicate effectively, both orally and in writing, with colleagues and health care team members with whom physicians must exchange information in carrying out their responsibilities.
- Provide compassionate and nonjudgmental treatment of all patients, and respect for the privacy and dignity of all patients.
- Demonstrate 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.
VI. Graduates must demonstrate the qualities required to sustain lifelong personal and professional growth. At the completion of the medical school curriculum, students must be able to:

- Engage in lifelong learning to stay abreast of relevant scientific advances.
- Assess self-awareness of knowledge, skills, and emotional limitations to engage in appropriate help-seeking behaviors.
- Demonstrate leadership skills that enhance team functioning and the learning environment.
- Develop an understanding of skills and strategies to maintain work life integration.

Adapted from Learning Objectives for Medical Student Education, Guidelines for Medical Schools, AAMC, 1998. Revised by the School of Medicine Curriculum Committee, July, 2009; Updated by the School of Medicine Curriculum Committee, November 2019

COMBINED DOCTOR OF MEDICINE (MD)/DOCTOR OF PHILOSOPHY PROGRAM (PhD) DEGREE
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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 letter of evaluation from someone able to evaluate the applicant’s research potential.
- Adhere to Regular Decision Program (RDP) deadlines.

Applicants to this combined degree program must be sequentially accepted for admission by the Admissions Executive Committees of both the School of Medicine and School of Graduate Studies in the Health Sciences or School of Population Health. 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/School of Population Health, 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.

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.

MEDICAL STUDENT PROFESSIONALISM CODE
The detailed Medical Student Professionalism Code can be found in the School of Medicine Student Handbook.

A COVENANT FOR MEDICAL EDUCATION
THE TEACHER-STUDENT RELATIONSHIP
The detailed Covenant for Medical Education: The Teacher-Student Relationship can be found in the School of Medicine Student Handbook.

ADMISSIONS
PRE-APPLICATION COUNSELING
Students wanting to become a doctor should visit the Association of American Medical Colleges’ (AAMC) website, “Considering a Medical Career.” The UMMC medical school admissions website contains useful information which outlines 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 Office of Admissions confirms an appointment, a student seeking pre-application counseling will be given a 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 website; select the “Students” tab. Information will be listed under “Prospective Students.”
The authority to select applicants for admission to the School of Medicine is vested in the Admissions Executive Committee. 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).

Official admissions records (such as transcripts) are handled and filed in the Office of Enrollment Management 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 Enrollment Management, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505, telephone (601) 984-1080.

Selection of applicants is made, 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.

Approved May 2, 2016

ADMISSIONS CRITERIA
CURRENT ADMISSIONS REQUIREMENTS WITH ADMISSIONS CRITERIA OPTIONS

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. The three admissions criteria options are End-Point Courses, Course Competency Maps, and Novel Curricular Tracks.

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.

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.

Courses taken online or 10 or more years ago may not be used for the End-Point course requirements.

The following courses are required:
- Life Sciences: 2 semesters of any combination of the following:
  - Cellular Biology
  - 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
  - Psychology
  - Statistics
  - 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

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
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:

1. Apply quantitative reasoning and appropriate mathematics to describe or explain phenomena in the natural world.
2. Demonstrate understanding of the process of scientific inquiry and explain how scientific knowledge is discovered and validated.
3. Demonstrate knowledge of basic physical principles and their applications to the understanding of living systems.
4. Demonstrate knowledge of basic principles of chemistry and some of their applications to the understanding of living systems.
5. Demonstrate knowledge of how biomolecules contribute to the structure and function of cells.
6. Apply understanding of principles of how molecular and cell assemblies, organs, and organisms develop structure and carry out function.
7. Explain how organisms sense and control their internal environment and how they respond to external change.
8. 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 Executive 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 an AMCAS® application, the medical school admissions office will email an applicant instructions for completing the supplemental application through the AMCAS Applicant Gateway. This supplemental application, 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:

- **End-point Courses**
  - Applicants must select and list the courses taken that fulfill this option in the prerequisites section
  - 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 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 Executive Committee.

- **Novel Curricula**
  - Applicants must list the number and name of courses planned that comprise eligible novel curricula. This option applies only to schools at which novel curricula have been 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 Executive 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 Executive 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 (or an egregious act) of unprofessional behavior, and incidents discovered in a criminal background check.

**RESIDENCY CLASSIFICATION**

The Office of Enrollment Management is responsible for determining whether or not an applicant meets the requirements for being a legal resident of Mississippi for the purpose of enrollment. If an applicant’s Mississippi residency is in question, the Office of Enrollment Management will send the applicant a Request for Review of Residency Classification form through the AMCAS WebAdmit application which will require completion and 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 be uploaded through a secure portal. 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 Enrollment Management (601-984-1080). (Here is the link for that page: https://umc.edu/som/files/SOM%20Admission/review-residency-form.pdf).
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, Lby-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 mid-summer of the junior year and release scores to all schools to which the student intends 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 three 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 Executive 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)
- **May/June** - Take 1st MCAT
- **May** - Request transcripts and faculty evaluation letters be sent to AMCAS
- **June** - Complete and submit on-line American Medical College Application Service (AMCAS) application
- **Summer** - Repeat MCAT, if needed
- **August** - 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 Enrollment Management.
• 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.

DATES FOR EDP

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<th>Submit to</th>
<th>Item</th>
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<td></td>
<td>MCAT Scores</td>
<td>June 1</td>
<td>August 1</td>
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</tbody>
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Notification Date: Not later than October 1

¹A complete set of all undergraduate and post-baccalaureate transcripts must be mailed to: American Medical College Application Service, 2501 M Street, NW, Lby-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 Enrollment Management, 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 Executive 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 Executive 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 Enrollment Management 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 Enrollment Management 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 this school of their decision by May 15.

DATES FOR RDP

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<td>MCAT Scores</td>
<td>June 1</td>
<td>October 15</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, Lby-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 Enrollment Management, 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 Executive 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 Executive 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).
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 Executive Committee. Prior to the Admissions Executive Committee deliberations, the associate deans for admissions, student affairs, vice dean, 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.

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 in American Medical College Application Service (AMCAS®) and SOM mentoring/tutoring/coaching, Secondary applications. This process is aligned with the mission and diversity interests of this medical school.

Mississippi Residency

For admission purposes, the School of Medicine (SOM) at the University of Mississippi Medical Center, as a practice, does not admit nonresidents 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.

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 Enrollment Management.

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, work with primary health care provider, work with medically underserved populations or rural medicine programs, or participation in health care pipeline programs
- Volunteer/community service - Social and other campus, community and faith-based organizations, campus ambassador/recruiter, disaster relief, or other organizations
- 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 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) or other major time commitments beyond those already listed
File Review Committee (FRC)
Three members of a FRC, 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 render the Admissions Executive Committee decisions and in post-application counseling for unsuccessful applicants.

Personal Attributes
The Admissions Executive 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, and 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 attributes are scored by the same three File Review Committee (FRC) members who score the applicant’s experiences. FRC 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.

Attribute scores are used to render the Admissions Executive Committee decisions, and for 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 the Admissions Executive 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 scale. 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 3.3. 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 Executive 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 496, provided that no one section score is less than 121. 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 Executive 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 504.
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 Executive 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.

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 Executive Committee selects are notified to contact the Admissions Office to schedule their interview date. Interviews are generally scheduled two days each month from August through December.

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 example 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.

7:45 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 Lunch
1:30 pm Tour of UMMC (wear comfortable shoes)

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 or one composite is required. 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
- Cultural Competence
- Teamwork
- Oral Communication

**Intrapersonal Competencies**
- Ethical Responsibility to Self and Others
- Reliability and Dependability
- Resilience and Adaptability
- Capacity for Improvement

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 Executive 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 Executive 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 Executive 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, and 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 Executive 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 15 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 January 13th 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 Executive 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.

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
• **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 Health care 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 Executive 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); and 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 Executive 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.

### 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 the Office of Enrollment Management 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 director of the Office of Enrollment Management, 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. Visiting students should maintain health insurance. Health services are available through the medical center, and services for occupational health requirements (such as immunizations) are available through Student-Employee Health for a fee. Students with minor occupational injuries occurring at UMMC can receive an initial assessment (by appointment) from Student-Employee Health during work hours, but if additional care or diagnostic testing is needed, would be referred to the appropriate UMMC clinic and billed for services. Students needing emergency care are advised to go to the emergency department at UMMC or another institution, as appropriate.

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 Enrollment Management, University of Mississippi Medical Center, 2500 North State Street, Jackson, MS 39216-4505 or email Tressie Nichols tsnichols@umc.edu for information and an application.

TECHNICAL STANDARDS FOR ADMISSION, RETENTION, PROMOTION, AND CERTIFICATION FOR THE DEGREE OF DOCTOR OF MEDICINE

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. Successful students should not only demonstrate honesty, integrity, reliability, and responsibility, but also clear respect for others and cultural sensitivity. Students are expected to excel in a rigorous academic environment and clearly demonstrate academic and personal achievement and a commitment to self-improvement and professional behavior. A graduate from the School of Medicine is expected to have a strong sense of commitment to serving his or her community, adhere to high ethical standards, and to be sensitive to individual, cultural, and ethnic differences that exist in society. Students must be able to meet these technical standards with or without reasonable academic accommodations.

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: The candidate must be able to demonstrate and use (in English) the knowledge acquired during the medical education process to elicit, convey, clarify and transmit information (both in oral and written form) effectively, accurately, efficiently and sensitively to patients, their families and other members of the health care team. Candidates must be able to communicate with patients in order to elicit information regarding mood, activity and posture and perceive nonverbal communication. Communication and transmission of information includes reading, writing, hearing, and speech. For example, candidates must be able to present legible, accurate and skillful information in oral and written form to a preceptor, professor, teammate, patient, patient’s family, and other members of the health care team. Candidates must also be able to effectively and efficiently participate in fast paced, small group discussions/interactions and in patient care settings where clinical decisions may depend on rapid communication.

Motor Coordination and Sensory Skills: Sufficient motor function, tactile ability and sensory abilities are required to attend and participate effectively in all classroom, laboratories, conferences, clinical settings, and activities that are part of the curriculum. Medical students must have somatic sensation and the functional use of the senses of vision, hearing, and equilibrium. They must have sufficient exteroceptive 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 must also 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.

Students should have sufficient motor function to obtain information from patients by palpation, auscultation, percussion, and other diagnostic maneuvers; 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. General care would include, but not limited to neurological, gynecological, prostate, pediatric, obstetric examinations (with appropriate instruments), wound repair, and the application of pressure to stop bleeding. 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: A student must demonstrate the ability to integrate, assimilate, and memorize large amounts of detailed and complex information and to process that information. Additional 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: The medical education process is both demanding and challenging. 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; independently and competently. 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.

The possession of interpersonal skills is equally important. The candidate should demonstrate compassion, empathy, a caring attitude, tolerance, an acceptance of differences, personal generosity toward others, thoughtfulness, and a general concern and respect for other individuals.

All students are expected to act as professionals and to be responsible for themselves and their own behavior and actions. Professional behavior would include such things as completing promptly all assignments and responsibilities attendant to the diagnosis and care of patients, showing up for all required experiences on time and prepared, and completing all assignments on time. Candidates will continually demonstrate integrity, honesty, caring, fairness, respect for others, and self, empathy, maturity, dedication, and the ability to distinguish and practice confidentiality. Working with others in an effective, mature, and sensitive manner with all members of the medical community, health care teams, and medical school community is required. Candidates are expected to make an effort to understand prejudices and preconceptions that might affect the patient, medical community, or collegial relationships, especially in the areas of race and ethnicity, gender, disability, sexual orientation, age, and religious differences.

SCHOOL TUITION AND FEES
Medical school tuition for residents of Mississippi and non-residents is shown 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. A nonrefundable supplemental application fee of $50 is required.

Tuition and fees for the current academic year can be found on the institutional website. Non-resident online students will pay in-state tuition. Tuition is 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.

Students registered in the combined MD/PhD program will pay graduate tuition for terms the individual is enrolled as a graduate student and medical tuition for terms the individual is enrolled as a medical student.” Current medical school tuition information can found on the student accounting website under “Doctor of Medicine.”

Technology/Tool/Supply Requirements
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. 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.

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.

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, students have a responsibility to read and become familiar with the contents of this handbook and all other such publications distributed by the institution. The most up-to-date edition can always be found on the School of Medicine’s website.

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.

**SCHOOL ACADEMIC REQUIREMENTS**

**MEDICAL STUDENT 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 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.

**ACADEMIC STATUS**

This policy defines the rules and responsible entities for grading, promotion, leave of absence, withdrawal, dismissal, and appeal.

**GOOD ACADEMIC STANDING**

This policy establishes criteria for a student to be considered in good academic standing.

**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. Students in good academic standing to pursue training as a medical scientist (i.e. to pursue research experience or to complete a Masters or Ph.D. 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 Enrollment Management. Grades in courses in progress shall be reported to the Office of Enrollment Management 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 Enrollment Management. Grades in progress shall be returned to the Office of Enrollment Management with a determination of “withdrawn.”

Any withdrawal by a student shall be presented to the appropriate Medical Student 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 excluded 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 campus or whose conduct discredits the Medical Center in any way will be subject to disciplinary action, up to and including dismissal.
STUDENT COMPLAINTS
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 appear 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/question witnesses, or make oral argument. 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, and recordings 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. Students with complaints that are not academic can take the complaint directly to one of the deans or use the anonymous email system monitored by Student Affairs.

PROGRAM OF STUDY
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, independent study, and patient simulation. 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. Advanced Cardiac Life Support 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.

During the fourth year, students select from a variety of courses that fulfill core requirements, including ambulatory, critical care, inpatient, and procedural medicine. Additionally, there is significantly more time for elective coursework that can be tailored to a student’s individual interests and specialty plans. Students also completed the Transition to Residency course to ease the transition from undergraduate medical education to the residency environment.
### DISTRIBUTION OF INSTRUCTION BY SEMESTER HOURS

**MEDICAL YEAR 1**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ANAT 611</td>
<td>Medical Gross and Developmental Anatomy</td>
<td>14</td>
</tr>
<tr>
<td>ANAT 613</td>
<td>Medical Histology and Cell Biology</td>
<td>7</td>
</tr>
<tr>
<td>CONJ 611</td>
<td>Medical Neuroscience and Behavior I</td>
<td>10</td>
</tr>
<tr>
<td>BIOCH 610</td>
<td>Biochemistry</td>
<td>10</td>
</tr>
<tr>
<td>CONJ 612</td>
<td>Introduction to the Medical Profession I</td>
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<tr>
<td>PHYSIO 611</td>
<td>Medical Physiology</td>
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<td></td>
<td><strong>TOTAL SEMESTER HOURS (39 weeks)</strong></td>
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**MEDICAL YEAR 2**

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<tbody>
<tr>
<td>CONJ 622</td>
<td>Introduction to the Medical Profession II</td>
<td>14</td>
</tr>
<tr>
<td>MICRO 611</td>
<td>Microbiology and Immunology</td>
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</tr>
<tr>
<td>PATH 621</td>
<td>General and Systemic Pathology</td>
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</tr>
<tr>
<td>PHARM 620</td>
<td>Introduction to Pharmacology and Therapeutics</td>
<td>12</td>
</tr>
<tr>
<td>CONJ 628</td>
<td>Medical Neuroscience and Behavior II</td>
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<td></td>
<td><strong>TOTAL SEMESTER HOURS (34 weeks)</strong></td>
<td><strong>60</strong></td>
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**MEDICAL YEAR 3**

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<th>Course Code</th>
<th>Course Title</th>
<th>Weeks</th>
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<tr>
<td>FM 631</td>
<td>Family Medicine Preceptorship</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>MED 631</td>
<td>Medicine Clerkship</td>
<td>8</td>
<td>20</td>
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<tr>
<td>CONJ 638</td>
<td>Medical Neuroscience and Behavior III</td>
<td>6</td>
<td>16</td>
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<tr>
<td>OB/GYN 631</td>
<td>Obstetrics and Gynecology</td>
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<td>PED 631</td>
<td>Junior Pediatrics</td>
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<tr>
<td>SURG 631</td>
<td>Surgery</td>
<td>8</td>
<td>20</td>
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<tr>
<td>CONJ 637</td>
<td>M3 Boot Camp</td>
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<td>15</td>
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<td>Elective x 2</td>
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<td><strong>TOTAL SEMESTER HOURS (46 weeks)</strong></td>
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**MEDICAL YEAR 4**

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<tr>
<th>Course Title</th>
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<tr>
<td>Critical Care Rotation</td>
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<td>12</td>
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<tr>
<td>Procedural Rotation</td>
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<td>12</td>
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<tr>
<td>Ambulatory Rotation</td>
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<td>12</td>
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<tr>
<td>Sub-Internship</td>
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<td>12</td>
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<tr>
<td>M4 Boot Camp</td>
<td>4</td>
<td>12</td>
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<tr>
<td>Elective 14 weeks total (2 week-5hrs and 4 week-10hrs)</td>
<td>14</td>
<td>35</td>
</tr>
<tr>
<td><strong>BASE TOTAL SEMESTER HOURS (34 weeks)</strong></td>
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### SUB-Internship Rotation

(Choose One)

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<tbody>
<tr>
<td>MED 651 A</td>
<td>General Medicine Clerkship</td>
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<tr>
<td>PED 652 A</td>
<td>Pediatric Externship</td>
</tr>
<tr>
<td>PED 672 A</td>
<td>Pediatric Hospitalist Service</td>
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<tr>
<td>FM 656 A</td>
<td>Family Medicine In Patient Service</td>
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### Critical Care Rotation

(Choose One)

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<tbody>
<tr>
<td>MED 659 A</td>
<td>Pulmonary Diseases/Critical Care Medicine</td>
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<tr>
<td>NEUR 658 A</td>
<td>Neuroscience Critical Care</td>
</tr>
<tr>
<td>PED 653 A</td>
<td>Neonatal Medicine</td>
</tr>
<tr>
<td>PED 668 A</td>
<td>Pediatric ICU</td>
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<tr>
<td>SURG 654 A</td>
<td>Surgical ICU</td>
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### Procedural Rotation

(Choose One)

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<tbody>
<tr>
<td>ANES 651 A</td>
<td>Clinical Anesthesiology</td>
</tr>
<tr>
<td>EM 680 A</td>
<td>Emergency Medicine</td>
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<tr>
<td>Peds 665 A</td>
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### Ambulatory Core

(Choose One)

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**CONJ 670 A Transition to Residency (Bootcamp)**

Electives 14 Weeks (4 Week Option A; 2 Week Option B). See E*Value for 2 Week option

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<td>SURG 670 A &amp; B</td>
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**Required Rotations:** MUST BE 4 WEEKS IN LENGTH (4 week courses are designated A courses)

**Electives:** Students are required to take at least 14 weeks of electives with at least 4 weeks at UMMC. Students will be able to choose from 100+ courses to satisfy this requirement. The Bulletin lists these courses. Students can find the Bulletin under The Office of Medical Education website.

**Unscheduled Time:** Once students have met the above requirements and scheduled all of the electives, students may then enter preferences for unscheduled time. Unscheduled time up to 12 weeks.

Note: If students are taking one extramural course (an away rotation with another institution), choose the 851 course. If students are taking two or three extramural courses in the same area, choose 851 and 852 and 853 (ex. SURG 851 and SURG 852). These courses must also be verified and handled through VSAS. TO DO AN EXTRAMURAL YOU MUST COMPLETE THE VSAS PROCESS.

Students cannot take the same course twice. The courses listed above that are not taken to satisfy one of your core requirements can be taken as an elective.

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 Office of Enrollment Management.

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.

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.

**COURSES OF INSTRUCTION**

**YEAR 1**

**ANAT 611. Medical Gross and Developmental Biology.** A study of the human body using dissection with an emphasis on clinical applications for normal anatomy and the study of development from conception to birth with an emphasis on congenital defects to understand normal development. A combination of didactic lectures, small group active learning sessions and laboratories. Traditional Lecture/Lab (15 hours)

**ANAT 613. Medical Histology and Cell Biology.** A study of the structure and function of cells, tissues and organs. Traditional Lecture/Lab (7 hours)
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 hours)

CONJ 611. Medical Neuroscience and Behavior I. This course provides an introduction to the anatomical, physiological, and behavioral basis of the human nervous system with an emphasis on clinical presentation. A variety of teaching modalities are used including didactic learning sessions, team-based learning, active learning groups, laboratories, and clinical experiences. Traditional Lecture (12 hours)

CONJ 612. Introduction to the Medical Profession I. 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 hours)

PHYSIO 611. Medical Physiology. This course consists of interactive class discussions, problem-based learning exercises and case-study sessions, clinical correlations taught by practicing physicians, laboratory exercises, and computer-based simulations, all designed to facilitate the student’s understanding of integrative physiological functions of the cells, tissues and organ systems of the human body in health and disease. Upon successful completion of the Medical Physiology course, students will demonstrate problem solving and critical thinking skills in understanding the fundamental mechanisms of human physiology needed for the practice of modern medicine. Traditional Lecture (12 hours)

YEAR 2

CONJ 622. Intro to the Medical Profession II. This second year course is designed to build upon the concepts learned in Introduction to the Medical Profession I (IMP1) and to further develop the skills needed to practice medicine in the 21st century. Members of all clinical departments participate in this course designed as further introduction to clinical medicine, bridging the gap between the basic sciences and clinical application. This course will help students improve communication and the ability to work on a healthcare team. It provides an opportunity to develop clinical reasoning skills. Classroom instruction in history taking, physical examination, and clinical reasoning is supplemented by weekly tutorial sessions conducted by members of the faculty. This course also continues to develop the students’ skills in ethics, population health, and health systems science. Traditional Lecture (14 hours)

CONJ 628. Medical Neuroscience and Behavior II. This course provides an introduction to neurology, psychopathology, and neuropathology. It highlights treatment options with an emphasis on clinical presentation and diagnosis identification. A variety of teaching modalities are used including didactic learning sessions, case-based learning, active learning groups, and clinical experiences with actual or standardized patients. Traditional Lecture (8 hours)

MICRO 611. Microbiology and Immunology. Students will learn fundamentals of both the function and development of the human immune system and etiology, epidemiology, 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 hours)

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 (14 hours)

YEAR 3

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 hours)

CONJ 632A. 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 hours)

CONJ 632B. 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 (5 hours)

CONJ 632C. 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 (5 hours)

CONJ 632D. 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 (5 hours)

CONJ 632E. 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 (5 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. (Offered Blocks 1-11) Traditional - EL Laboratory (5 hours)

CONJ 634. Evolution in Health and Disease. 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. Traditional Independent Study (5 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. Traditional Clinical Rotation (5 hours)

CONJ 637. M3 Boot Camp. This is a two week course required of all rising third year medical students designed to bridge the learning gap during the transition from the classroom setting to the M3 clinical clerkships. Traditional Lecture (15 hours)

CONJ 638. Medical Neuroscience and Behavior III. This six week course of approximately 300 hours is designed to introduce the medical student to the clinical practice of the medical neurosciences (psychiatry, neurology, and neurosurgery) in both inpatient and outpatient settings. In addition, this course will practically reinforce the theoretical principles of the psychiatric interview, neurological examination, differential diagnosis, and individual treatment plans for a wide variety of patients. The bulk of time in this course (80-85%) will be spent in clinical settings under the supervision of attending psychiatrists, neurologists, neurosurgeons, and psychologists as well as senior residents in the Departments of Psychiatry and Human Behavior, Neurology, and Neurosurgery. The remaining time (15-20%) will be spent in learning using online self-directed resources, didactics, formal case presentations, discussions, and write-ups. Clinical Rotation (16 hours)

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. Traditional Clinical Rotation (5 hours)

**DERM 641. Rural Dermatology.** This is a M3 two-week Rural Dermatology (Louisville clinic) rotation where medical students will gain experience in the evaluation and treatment of the 20 most common dermatologic conditions encountered in the rural setting. The medical student will join the full-time dermatologist as well as any currently rotating residents and participate in outpatient dermatology clinics as well as inpatient consultations (at Winston Medical Center in Louisville). Utilizing a team-based approach, the students over the course of a month gain increasing responsibility for taking histories, describing physical findings, and synthesizing a differential diagnosis – and contributing toward the treatment plan at a level appropriate to the student’s training level. Students will also have exposure to procedures such as KOH preparation, scabies preparation, local anesthesia, shave and punch biopsies, surgical excisions, and suturing. Nightly reading is expected to focus on enhancing the care for patients seen each day. The students will also have opportunities to participate in some teleconferences with the larger dermatology department in Jackson as time permits. Less-structured learning will occur in the clinic, and students will be expected to teach patients and other students – as applicable – and to learn themselves as opportunities arise. The primary sites for this rotation will be the UMMC Dermatology satellite clinic in Louisiville, MS and the nearby Winston Medical Center hospital and emergency department. Furthermore, twice-monthly clinics will be held at the main UMMC Pavilion and/or Grants Ferry locations. Students should expect to make their own arrangements for transportation to and from clinic sites, and for local accommodations if necessary. Rotational positions will be made available on a first-come-first-served basis. Traditional Clinical Rotation (10 hours)

**EM 630. Emergency Medicine: 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. Traditional Clinical Rotation (5 hours)

**FM 631. Family Medicine Preceptorship.** This course is designed to introduce the third-year medical student to the concepts of family medicine. The six-week experience includes a four-week preceptorship working one-on-one with a family physician in private practice within the state. 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 Flowood Family Medical Center, or Lakeland Family Medical Center. Traditional Clinical Rotation (16 hours)

**FM 632. M3 Elective in Medical Ethics.** 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. Traditional - EL Thesis (5 hours)

**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 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. Traditional Clinical Rotation (5 hours)

**MED 634. Outpatient Care of the Geriatric Patient.** This elective provides third year students with the opportunity to care for geriatric patients. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 hours)

**MED 637. Pulmonary Medicine.** This course provides exposure to patients with pulmonary disorders in a combined in/outpatient educational experience. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 hours)

**MED 640. Ambulatory Internal Medicine.** The students will be exposed to a variety of pathologic conditions commonly encountered in the outpatient setting. Traditional Clinical Rotation (5 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
NEUR 633. Clinical Neuroscience Elective. The clinical neuroscience elective is administratively managed by Neurology. During this elective, 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 UMMC. They will have a choice of NSICU, general service, neurosurgery, or stroke service. They can choose either one or two of these options during their two week elective. Emphasis will be placed on the neurologic history and clinical examination in patients with acute and chronic neurological diseases. Traditional Clinical Rotation (5 hours)

NS 630. Neurosurgery 630. The M3 neurosurgery elective is a two-week rotation in Neurosurgery where third year medical students will gain experience in the evaluation and treatment of neurological surgery problems encountered in an academic medical center. The primary goal of this course is to introduce M3 students to the daily practice of neurosurgery. Students will focus on diagnosis and management of common neurosurgical problems, related surgical procedures, and consultation. Traditional EL Clinical Rotation (5 hours)

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 hours)

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. Traditional Clinical Rotation (5 hours)

ORTH 630. Orthopedic Surgery. This 2-week 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. Traditional Clinical Rotation (5 hours)

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. Traditional Clinical Rotation (5 hours)

PATH 630. Pathology: Anatomic Elective. Students will be introduced to surgical pathology, autopsy, cytopathology and subspecialties. MUST BE SCHEDULED IN ADVANCE. Traditional Clinical Rotation (5 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. MUST BE SCHEDULED IN ADVANCE. Traditional Clinical Rotation (5 hours)

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 hours)

PED 632. Child Development & Behavioral Pediatric. 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 youth developmental and behavioral disorders including ADHD, learning disabilities, Tourette’s Syndrome, autism spectrum disorders, behavioral disorders, and intellectual disabilities. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 hours)

PSYCH 632. Junior Elective in Psychiatry. This two week course of approximately 80 hours is designed to provide medical students interested in the clinical practice of psychiatry with the opportunity to extend and deepen their exposure to the field. In addition, this course will provide additional experience and training in the theoretical principles of the psychiatric interview, differential diagnosis and individual treatment plans for a wide variety of patients. The bulk of time in this course (85-90%) will be spent in clinical settings
under the supervision of attending psychiatrists and psychologists as well as senior residents in the Department of Psychiatry and Human Behavior. The remaining time (10-15%) will be spent in discussions of advanced reading assignments with faculty in the Department. Traditional Clinical Rotation (5 hours)

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 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. Traditional Clinical Rotation (5 hours)

RADONC 630. Junior 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 plan to go into a field such as family practice, internal medicine, pediatrics, or surgery, where oncologic patients may be part of their practice. The third year student will gain more familiarity with the role of radiation therapy in the treatment of cancer patients and gain the experience in the use of radiant energy for treating malignant and non-malignant disease. Students will participate in evaluation of patients with a wide variety of physical findings, under direct supervision of several faculty radiation oncologists, and medical residents. Students will follow at least one new patient through simulation, administration of informed consent, patient teaching, treatment planning, and implementation. Attendance at tumor conferences will emphasize the importance of a multidisciplinary approach to cancer management. A reading list will be provided. Traditional Clinical Rotation (4 hours)

SURG 631. Surgery. The basic comprehensive course in surgery includes case studies, conferences, quizzes, ward rounds, outpatient clinic, and operating room time for 8 weeks. Didactic and clinical experiences include material from all surgical specialties. Application of anatomy and physiology to the recognition, evaluation, and operative treatment of common surgical diseases is emphasized along with pre and postoperative care of surgical patients. Students are assigned patient care responsibilities under faculty and housestaff supervision including participation as part of an in-hospital on-call team. Students are required to participate in all aspects of patient care and to attend student centered and departmental core conferences. Traditional Clinical Rotation (20 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. Traditional Clinical Rotation (5 hours)

SURG 633. Veterans Administration General Surgery. Students will participate in the diagnosis and treatment of a broad spectrum of general surgery problems. Traditional Clinical Rotation (5 hours)

SURG 634. Cardiothoracic Surgery. This elective is designed for students with interests in adult or pediatric cardiothoracic disease. Students will be able to choose between two weeks on either the Pediatric or Adult Cardiothoracic services. Traditional Clinical Rotation (5 hours)

SURG 635. Pediatric Surgery. The student will participate in the surgical management of pediatric patients with a variety of surgical problems. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 hours)

SURG 641. Urology. 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. Emphasis is placed on the common urologic problems with initial evaluations in the clinic or hospital setting. Students will participate in preoperative patient care, assist with urologic tests, procedures and surgeries in clinic and in the operating room. Traditional Clinical Rotation (5 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. Traditional Clinical Rotation (5 hours)

YEAR 4
ANAT 651B. Review of Human Anatomy. Permission of the course director required. Traditional - EL Laboratory (5 hours)

ANAT 652A. Review of Human Neurobiology. Intensive review of regions and systems with particular emphasis on clinical neurosciences. Permission of the course director required. Traditional - EL Lecture/Lab (10 hours)

ANAT 653A. 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. Traditional - EL Lecture/Lab (10 hours)
ANAT 654A. Neurobiology 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 hours)

ANAT 657A. Clinical Anatomy Research/Scholarship. 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 hours)

ANES 651A. Clinical Anesthesiology. An 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. Traditional - EL Clinical Rotation (12 hours)

ANES 652A. 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. (1 student each block unless special permission is granted by course director. Available blocks 1-12.) Traditional - EL Clinical Rotation (10 hours)

ANES 653A. Anesthesiology & Peri-Operative Medicine. An 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 anesthesiology, 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. Traditional - EL Clinical Rotation (12 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

CONJ 653A. 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. Traditional - EL Clinical Rotation (10 hours)

CONJ 654A. Primary Sports Medicine. The Primary Care Sports Medicine elective provides a unique experience for interested senior medical students. Students are given the opportunity to work one on one with the UMMC Sports Medicine faculty and athletic trainers. Students will attend various primary care orthopedic clinics, training room and selected sporting events. The student will also attend a weekly sports medicine lecture and injury conference that allows the student to interact with the Sports Medicine staff. Traditional Clinical Rotation (10 hours)

CONJ 654B. Primary Sports Medicine. The Primary Care Sports Medicine elective provides a unique experience for interested senior medical students. Students are given the opportunity to work one on one with the UMMC Sports Medicine faculty and athletic trainers. Students will attend various primary care orthopedic clinics, training room, and selected sporting events. The student will also attend a weekly sports medicine lecture and injury conference that allows the student to interact with the Sports Medicine staff. Traditional Clinical Rotation (5 hours)

CONJ 655A. 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. Traditional Independent Study (10 hours)

CONJ 655B. 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. Traditional Clinical Rotation (5 hours)

CONJ 658A. Oral-Maxillofacial Surgery. This 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. Traditional Clinical Rotation (10 hours)

CONJ 658B. Oral-Maxillofacial Surgery. This 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. Traditional - EL Clinical Rotation (5 hours)

CONJ 658C. 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. Traditional - EL Clinical Rotation (10 hours)

CONJ 659A. 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 blocks 1-12, 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 Beth Wilson (mpwilson@umc.edu) in L439 or Dr. Sheree Melton (smelton@umc.edu). Traditional Clinical Rotation (10 hours)

CONJ 660A. M4 Medical Student Research Program. A 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 hours)

CONJ 660B. Medical Student Research Program (MSRP). A 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. (Available blocks 1-11) Traditional Clinical Rotation (5 hours)

CONJ 667A. 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 departments 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. Traditional Practicum/Internship (10 hours)

CONJ 669A. 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. Traditional Lecture (10 hours)

CONJ 670A. Transition to Residency. M4 Boot Camp - This 4 week required course for each medical student during the spring of the senior year provides a multidisciplinary, integrated approach to allow the student to experience a smooth transition into residency training. Each student will be required to attend sessions related to general topics for a physician. Each student will also receive training in specific areas related to the chosen field of focus for residency training. A combination of traditional didactics, podcasted lectures, small group sessions, medical simulations, internet research, and standardized patients will be utilized in this experience. Traditional Lecture/Lab (12 hours)

DERM 664A. 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 submit two short written case reports and attend any conferences offered. Traditional - EL Clinical Rotation (10 hours)

DERM 665A. 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. Traditional Independent Study (10 hours)
DELM 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. Traditional Clinical Rotation (10 hours)

DELM 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. Traditional Clinical Rotation (10 hours)

DELM 853. 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. Traditional Clinical Rotation (10 hours)

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. Traditional - EL Clinical Rotation (12 hours)

EM 682A. 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 faculty. 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. Traditional - EL Clinical Rotation (10 hours)

EM 682B. 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 faculty. 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. Traditional Clinical Rotation (5 hours)

EM 683A. 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. (2 students per block. Available all months.) Traditional - EL Lecture (10 hours)

EM 683B. Emergency Medicine Research. 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. Traditional Clinical Rotation (5 hours)

EM 686A. 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. Traditional Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

EM 853. 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. Traditional - EL Clinical Rotation (10 hours)

FM 651A. 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 Office of Enrollment Management. Traditional - EL Clinical Rotation (12 hours)

FM 651B. Family Medicine Preceptorship. The student spends one month two weeks 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 Office of Enrollment Management. (3 students each block. Available all blocks.) (2 students per block. Available block 12 only) Traditional Clinical Rotation (5 hours)
FM 652A. Family Medicine Clerkship. The senior student is assigned to a work in the department’s two 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 Office of Enrollment Management. Traditional - EL Clinical Rotation (12 hours)

FM 656A. Family Medicine In-Patient Service. The student will spend one month working with a team of family medicine residents and faculty 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. Traditional - EL Clinical Rotation (12 hours)

FM 657A. Infectious Diseases. The senior student is assigned to work in the department’s two 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 Office of Enrollment Management. Traditional - EL Clinical Rotation (12 hours)

FM 658A. Family Medicine Ethics. This is a 4 week rotation in Family Medicine where fourth year medical students will gain experience in ethical situations related to clinical practice and the profession of medicine. Tolerance and understanding of differing views will be essential in establishing productive patient-physician collaborations. In this rotation, it is hoped that students will gain increased knowledge of recognition and management of various ethical issues and decisions that they encounter in clinical practice daily. Recognizing these situations and acquiring knowledge about them is essential to understanding the patient’s viewpoints and decisions. Equally important is being able to understand your own personal influences and biases. Through giving thoughtful consideration to daily ethical decisions, the student/physician develops his or her personal code of conduct. Traditional (10 hours)

FM 659A. Pulmonary Diseases/Critical Care Med. Students are assigned to the Pulmonary and Critical Care Medicine services at UMMC. 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. 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. Traditional - EL Clinical Rotation (12 hours)

MED 651A. 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 of Mississippi 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. Traditional - EL Clinical Rotation (12 hours)

MED 652A. 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. Traditional - EL Clinical Rotation (12 hours)

MED 653A. Special Medicine. Individualized programs for two or four weeks can be arranged with the course director’s approval for students who are interested in obtaining experience in research or other areas of interest. Traditional - EL Clinical Rotation (10 hours)

MED 654A. 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. Traditional - EL Clinical Rotation (10 hours)

MED 655A. 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. Traditional - EL Clinical Rotation (12 hours)

MED 657A. 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 of Mississippi 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. Traditional Clinical Rotation (10 hours)

MED 659A. Pulmonary Diseases/Critical Care Med. Students are assigned to the Pulmonary and Critical Care Medicine services at UMMC. 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. 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. Traditional - EL Clinical Rotation (12 hours)

MED 659VA. Pulmonary Diseases/Critical Care Med VA. Students are assigned to the Pulmonary and Critical Care Medicine services at the VAMC. The VA ICU is a 10 bed critical care unit. The students will actively participate in the work-up and care of veterans whose illnesses range from various respiratory diseases to the critically ill. Students will work one on one with an attending to learn some of the core concepts in critical care and will be introduced to the manifestations and treatment of various pulmonary diseases. Traditional Clinical Rotation (12 hours)
MED 660B. 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 in 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. Traditional Clinical Rotation (5 hours)

MED 661A. 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. Traditional - EL Clinical Rotation (10 hours)

MED 663A. 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. Traditional - EL Lecture (12 hours)

MED 666A. 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. Traditional - EL Clinical Rotation (10 hours)

MED 667A. 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. Traditional - EL Clinical Rotation (10 hours)

MED 668A. 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. Traditional - EL Clinical Rotation (10 hours)

MED 670A. 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. Traditional - EL Clinical Rotation (10 hours)

MED 673A. 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. Times for participation dependent upon preceptor availability. Students should contact the department in advance to insure appropriate timing. Traditional - EL Clinical Rotation (12 hours)

MED 674A. 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 families, 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). Traditional - EL Clinical Rotation (10 hours)

MED 675A. Interventional Cardiology. This is a 4 week rotation. Interventional cardiology will allow students to be involved with the care of patients receiving cardiac interventional procedures. This will include training to improve coronary and peripheral circulation and alleviate valvular stenosis and treat structural heart disease. This offers the opportunity to be directly involved in patient care. Students are encouraged and expected to participate in the planning of procedures as well as pre and post patient evaluations to increase their depth of knowledge of disease, indications, diagnostic and therapeutic procedures in interventional cardiology. Traditional Clinical Rotation (10 hours)
MED 676A. M4 Allergy and Immunology. The 4 week rotation provides fourth year medical students with primarily outpatient clinical exposure to asthma, allergy, and clinical immunology. The students will work directly with faculty and fellows in outpatient clinic but may also see inpatient consults when available. The service treats both adult and pediatric patients with a variety of allergic diseases. The rotation will provide an introduction to the specialty and provide basic understanding of pathophysiology of common allergic conditions. Traditional Clinical Rotation (10 hours)

MED 676B. M4 Allergy and Immunology. The 2 week rotation provides fourth year medical students with primarily outpatient clinical exposure to asthma, allergy, and clinical immunology. The students will work directly with faculty and fellows in outpatient clinic but may also see inpatient consults when available. The service treats both adult and pediatric patients with a variety of allergic diseases. The rotation will provide an introduction to the specialty and provide basic understanding of pathophysiology of common allergic conditions. Traditional Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

MED 853. 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. Traditional - EL Clinical Rotation (10 hours)

NEUR 651A. 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. Traditional - EL Clinical Rotation (10 hours)

NEUR 651B. 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. Traditional Clinical Rotation (5 hours)

NEUR 652A. Clinical Neurology Acting Internship. Student will work under the supervision of house staff and attending staff on the inpatient Neurology services. This rotation provides supervised teaching and instructions on core neurological principles of localization, summarization and formulation of assessments and treatment plans uniquely tailored to patients with stroke or general neurological disorders such as epilepsy, neuromuscular disorders, neuro-immunological disorders, neurodegenerative disorders and neuro-ophthalmological disorders, to name a few, that are of significant severity or acuity to require inpatient admission for diagnosis and/or treatment. Additionally, the student will experience the role of the subspecialist expert (the neurologist) as a consultant in the ED and various non-neurology inpatient services. Traditional - EL Clinical Rotation (10 hours)

NEUR 652B. Clinical Neurology Acting Internship. Student will work under the supervision of house staff and attending staff on the inpatient neurology services. This rotation provides supervised teaching and instructions on core neurological principles of localization, summarization and formulation of assessments and treatment plans uniquely tailored to patients with stroke or general neurological disorders such as epilepsy, neuromuscular disorders, neuro-immunological disorders, neurodegenerative disorders and neuro-ophthalmological disorders, to name a few, that are of significant severity or acuity to require inpatient admission for diagnosis and/or treatment. Additionally, the student will experience the role of the subspecialist expert (the neurologist) as a consultant in the ED and various non-neurology inpatient services. Traditional Clinical Rotation (5 hours)

NEUR 658A. Neuroscience Critical Care. This course is designed for the student considering neuroscience critical care or a closely related field as a discipline and will afford this experience as an acting internship. This clerkship was established to give future health care 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. Traditional Clinical Rotation (12 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

NEUR 853. 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. Traditional - EL Clinical Rotation (10 hours)

NS 655A. 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. Traditional - EL Clinical Rotation (10 hours)

NS 655B. Neurosurgery. 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. Traditional Clinical Rotation (12 hours)

NS 656A. Neurosurgery II. This is a 4 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.

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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

NS 853. 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. Traditional - EL Clinical Rotation (10 hours)

OB/GYN 653A. 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. Traditional - EL Clinical Rotation (10 hours)

OB/GYN 655A. 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. Traditional - EL Clinical Rotation (10 hours)

OB/GYN 656A. 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. Traditional - EL Clinical Rotation (12 hours)

OB/GYN 656B. 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. Traditional Clinical Rotation (5 hours)

OB/GYN 658A. 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. Traditional - EL Clinical Rotation (12 hours)

OB/GYN 659A. 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. Traditional - EL Clinical Rotation (12 hours)

OB/GYN 661A. 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. (10 students each block. Available September only.) Traditional Independent Study (10 hours)

OB/GYN 661B. 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. (10 students each block. Available block 3.) Traditional Clinical Rotation (5 hours)

OB/GYN 663A. 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 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. Traditional Clinical Rotation (12 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

OB/GYN 853. 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. Traditional - EL Clinical Rotation (10 hours)

OPHTH 659A. Ophthalmology I. The material covered includes ophthalmology for non-opthalmologists especially as related to family practice, internal medicine and pediatrics. Areas covered include ophthalmology in systemic disease, neuro-opthalmology, 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. Traditional - EL Clinical Rotation (12 hours)

OPHTH 659B. Ophthalmology I. The material covered includes ophthalmology for non-opthalmologists especially as related to family practice, internal medicine and pediatrics. Areas covered include ophthalmology in systemic disease, neuro-opthalmology, 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. Traditional Clinical Rotation (5 hours)

OPHTH 660A. 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 ophthalmoscopy as assistant in the operating room. Traditional - EL Clinical Rotation (12 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

OPHTH 853. 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. Traditional - EL Clinical Rotation (10 hours)

ORTHO 657A. 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. Traditional - EL Clinical Rotation (12 hours)

ORTHO 658A. Outpatient Orthopedic Surgery. This month-long 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.)

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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

ORTHO 853. 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. Traditional - EL Clinical Rotation (10 hours)

OTO 661A. 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. Traditional - EL Clinical Rotation (12 hours)

OTO 662B. 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. Traditional Clinical Rotation (5 hours)

OTO 663A. Otolaryngology - Research. The student will participate in clinical and/or laboratory research. The student will be assigned a research mentor to facilitate the learning of research design, research techniques, data collection, statistical analysis, manuscript development, and presentation skills. Students may join an existing project or submit original ideas. Traditional - EL Clinical Rotation (10 hours)

OTO 851. Otolaryngology 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. Traditional - EL Clinical Rotation (10 hours)

OTO 852. Otolaryngology 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. Traditional - EL Clinical Rotation (10 hours)

OTO 853. Otolaryngology 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. Traditional - EL Clinical Rotation (10 hours)

PATH 651A. 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. Traditional - EL Lecture/Lab (10 hours)

PATH 652A. 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. Traditional - EL Laboratory (10 hours)

PATH 652B. 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. Traditional Clinical Rotation (5 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

PATH 853. 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. Traditional - EL Clinical Rotation (10 hours)

PED 651A. Pediatric Ambulatory Care. Under the supervision of one attending, the student can practice history and physical exam skills as well as patient care skills during a wellness and acute care visit in our Pediatric Ambulatory Clinics. Will practice complete presentations, including possible differential diagnosis and treatment. Aquifer Pediatric cases and basic pediatric lectures will review Core General Pediatrics. The rotation requires six half days a week. Traditional - EL Clinical Rotation (12 hours)
PED 652A. Pediatric Externship. The extern functions as a first year house officer under the supervision of the resident and the attending staff. Traditional - EL Clinical Rotation (12 hours)

PED 653A. 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. Traditional - EL Clinical Rotation (12 hours)

PED 654A. Child Development Clinic. The student participates as part of the clinic team. He/she works up patients referred to this clinic, follows some patients through psychological testing, speech evaluation, and hearing evaluation, biochemical screening, and final disposition and counseling. Designed for those interested in pediatrics, neurology, family practice and/or psychiatry. Traditional - EL Clinical Rotation (10 hours)

PED 655A. Pediatric Cardiology. This course is an introduction to all aspects of congenital heart disease. Students function as externs (i.e. learners) and will work in pediatric cardiology clinic, pediatric CICU, 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), developing thorough, age-appropriate differential diagnoses and basic treatment plans. Traditional - EL Clinical Rotation (10 hours)

PED 656A. 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. Traditional - EL Clinical Rotation (10 hours)

PED 657A. Pediatric Endocrinology. The student functions as an extern, seeing outpatients and inpatients, and gains knowledge in related function studies. Traditional - EL Clinical Rotation (10 hours)

PED 658A. Pediatric Endocrinology. The student functions as an extern, seeing outpatients and inpatients, and gains knowledge in related function studies. Traditional Clinical Rotation (5 hours)

PED 659A. Pediatric Allergy-Immunology. The student will serve as an extern evaluating patients with allergic and congenital immunodeficiency disorders in the outpatient setting. Traditional - EL Clinical Rotation (10 hours)

PED 660A. 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. Traditional - EL Clinical Rotation (10 hours)

PED 661A. 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. Traditional - EL Clinical Rotation (10 hours)

PED 662A. 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. Traditional - EL Clinical Rotation (10 hours)

PED 663A. 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. Traditional Clinical Rotation (5 hours)

PED 664A. Pediatric Nephrology. The student functions as an extern and participates in the evaluation and care of children with kidney diseases. 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. Traditional - EL Clinical Rotation (10 hours)

PED 665A. 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). Traditional - EL Clinical Rotation (12 hours)
PED 667A. 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. Traditional - EL Clinical Rotation (10 hours)

PED 668A. 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. Traditional - EL Clinical Rotation (12 hours)

PED 672A. 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. Traditional Clinical Rotation (12 hours)

PED 673A. 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. Traditional Clinical Rotation (10 hours)

PED 673B. 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. (1 student each block. Available all blocks except for 6 and 7.) Traditional Clinical Rotation (5 hours)

PED 674B. Pediatric Palliative Care. This is a 2 week elective rotation in Pediatric Palliative Care where fourth year medical students will gain experience in the diverse aspects of palliative medicine, including: discussion goals of care for patients and families dealing with serious illness; management of refractory symptoms such as pain, dyspnea, anxiety, and others, including end of life care; provision of supportive care through compassionate communication with patients and families grappling with uncertain or terminal prognosis; and a focus on the quality of life of the whole patient and family. Students will participate in the inpatient and outpatient visits of patients being cared for by the Pediatric Palliative Care team, including family conferences, bereavement meetings, and end-of-life/hospice management. There will also be occasional discussion-based lectures on topics central to Pediatric Palliative Care. In this rotation, it is hoped that students, through the experience of direct patient care and observation, should demonstrate knowledge about established and evolving biomedical, clinical and social-behavioral sciences relevant to the care of infants and children with life-limiting and life-threatening conditions and their families, and relate this knowledge to the growing field of hospice and palliative medicine. Additionally, students will recognize the importance of whole-person care, including identifying and treating the psycho/social/spiritual dimensions of suffering, as well as gain practice in the important work of self-awareness and self-care for physicians dealing with difficult cases. Traditional Clinical Rotation (5 hours)

PED 675A. Pediatric Interventional Cardiology. This is a 4 week rotation. Interventional cardiology will allow students to be involved with the care of patients receiving cardiac interventional procedures. This will include training to improve coronary and peripheral circulation and alleviate valvular stenosis and treat structural heart disease. This offers the opportunity to be directly involved in patient care. Traditional Clinical Rotation (12 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

PED 853. 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. Traditional - EL Clinical Rotation (10 hours)

PHARM 652A. 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. Traditional - EL Lecture (10 hours)

PHYSIO 651A. 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 is required. Inquiries concerning the course can be made with the department chair, course director, or course coordinator. Arrangements for taking the course must be made in advance of registration. Traditional - EL Clinical Rotation (10 hours)

PM 660A. Health Policy. This is a 4-week elective for fourth year medical students interested in health policy. During this rotation students will work directly with the executive director of the Center for Mississippi Health Policy (http://www.mshealthpolicy.com/), and staff. Students will attend Public Health, Medicaid, and other legislative committee meetings at the capitol building during the legislative session in February and will also view floor debates in February (in-person or by webcast). In addition, there will be opportunity for students to interact with lobbyists and other professionals involved in the healthcare field. Sessions will also be arranged with the legislative liaison of the state health department. Throughout the rotation, students will follow bills that are relevant to the medical field in order to gain an understanding of the complexities of the process by which a bill becomes a law. Students will
also have discussions with legislative staff at UMMC on what constitutes appropriate institutional advocacy. Traditional Clinical Rotation (10 hours)

**PSYCH 653A. 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. Traditional Clinical Rotation (10 hours)

**PSYCH 653B. 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. Traditional Clinical Rotation (10 hours)

**PSYCH 658A. 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. Traditional - EL Clinical Rotation (10 hours)

**PSYCH 658B. Sleep Disorders.** The senior student spends 2 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. Traditional Clinical Rotation (5 hours)

**PSYCH 659A. 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. Traditional Clinical Rotation (10 hours)

**PSYCH 659B. Behavioral Health Specialty Clinics.** The senior student 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. Traditional Clinical Rotation (5 hours)

**PSYCH 661A. Senior Elective in Acute Care Psychiatry.** This course is designed to provide senior medical students interested in the clinical practice of psychiatry with the opportunity to extend and deepen their exposure to consult/liaison psychiatry and psychiatric emergency services. Students will function as sub interns conducting independent interviews, proposing individualized treatment plans, arranging admission to psychiatric inpatient facilities when necessary, and developing transfer plans. In addition, senior medical students serve as mentors to junior clerks, reviewing notes and presentations prior to review by residents and attendings. The bulk of time in this course (80%) will be spent in clinical settings under the supervision of attending psychiatrists and psychologists as well as senior residents in the Department of Psychiatry and Human Behavior. The remaining time (20%) will be spent on a capstone project assignment. The topic of the project will be identified at the start of the elective in collaboration with unit attendings and will focus on an advanced topic in mental health care. Capstone projects will be presented to faculty and residents at the conclusion of the elective. Traditional Clinical Rotation (5 hours)

**PSYCH 661B. Senior Elective in Acute Care Psychiatry.** This course is designed to provide senior medical students interested in the clinical practice of psychiatry with the opportunity to extend and deepen their exposure to consult/liaison psychiatry and psychiatric emergency services. Students will function as sub interns conducting independent interviews, proposing individualized treatment plans, arranging admission to psychiatric inpatient facilities when necessary, and developing transfer plans. In addition, senior medical students serve as mentors to junior clerks, reviewing notes and presentations prior to review by residents and attendings. The bulk of time in this course (80%) will be spent in clinical settings under the supervision of attending psychiatrists and psychologists as well as senior residents in the Department of Psychiatry and Human Behavior. The remaining time (20%) will be spent on a capstone project assignment. The topic of the project will be identified at the start of the elective in collaboration with unit attendings and will focus on an advanced topic in mental health care. Capstone projects will be presented to faculty and residents at the conclusion of the elective. Traditional Clinical Rotation (10 hours)

**PSYCH 662A. Senior Elective in Inpatient Psychiatry.** This month-long course of approximately 160 hours is designed to provide senior medical students interested in the clinical practice of psychiatry with the opportunity to extend and deepen their exposure to adult inpatient psychiatry. Students will function as sub interns managing 4-5 patients and conducting independent interviews, proposing
individualized treatment plans, arranging social work meetings and family conferences, and developing aftercare plans. In addition, senior medical students serve as mentors to junior clerks, reviewing notes and presentations prior to review by residents and attendings. The bulk of time in this course (80%) will be spent in clinical settings under the supervision of attending psychiatrists and psychologists as well as senior residents in the Department of Psychiatry and Human Behavior. The remaining time (20%) will be spent on a capstone project assignment. The topic of the project will be identified at the start of the elective in collaboration with unit attendings and will focus on an advanced topic in mental health care. Capstone projects will be presented to faculty and residents at the conclusion of the elective. Traditional Clinical Rotation (10 hours)

**PSYCH 662B. Inpatient Psychiatry.** This course is designed to provide senior medical students interested in the clinical practice of psychiatry with the opportunity to extend and deepen their exposure to adult inpatient psychiatry. Students will function as subinterns conducting independent interviews, proposing individualized treatment plans, arranging admission to psychiatric inpatient facilities when necessary, developing transfer plans, and submitting chart notes. In addition, senior medical students serve as mentors to junior clerks, reviewing notes and presentations prior to review by residents and attendings. The bulk of time in this course (80%) will be spent in clinical settings under the supervision of attending psychiatrists and psychologists as well as senior residents in the Department of Psychiatry and Human Behavior. The remaining time (20%) will be spent on a capstone project assignment. The topic of the project will be identified at the start of the elective in collaboration with unit attendings and will focus on an advanced topic in mental health care. Capstone projects will be presented to faculty and residents at the conclusion of the elective. Traditional Clinical Rotation (5 hours)

**PSYCH 663A. Addiction Psychiatry.** This four week course of approximately 160 hours is designed to provide senior medical students interested in the treatment of patients with substance use disorders with the opportunity to extend and deepen their exposure to addiction psychiatry, including medication-assisted treatment of substance use disorders. Students will function as subinterns conducting independent interviews, proposing individualized treatment plans, arranging admission to psychiatric inpatient facilities when necessary, developing transfer plans, and submitting chart notes. In addition, senior medical students serve as mentors to junior clerks, reviewing notes and presentations prior to review by residents and attendings. The bulk of time in this course (80%) will be spent in clinical settings under the supervision of attending psychiatrists and psychologists as well as senior residents in the Department of Psychiatry and Human Behavior. The remaining time (20%) will be spent on a capstone project assignment. The topic of the project will be identified at the start of the elective in collaboration with the course directors and will focus on an advanced topic in mental health care for substance use disorders. Capstone projects will be presented to faculty and residents at the conclusion of the elective. Traditional Clinical Rotation (10 hours)

**PSYCH 663B. Addiction Psychiatry.** This two week elective course is designed to provide senior medical students interested in the treatment of patients with substance use disorders with the opportunity to extend and deepen their exposure to addiction psychiatry, including medication-assisted treatment of substance use disorders. The course is likely to be valuable for students planning to pursue specialties other than psychiatry who nevertheless want to be knowledgeable about evidence-based approaches to the diagnosis and treatment of substance use disorders. Students will function as subinterns conducting independent interviews, proposing individualized treatment plans, arranging admission to psychiatric inpatient facilities when necessary, developing transfer plans, and submitting chart notes. In addition, senior medical students serve as mentors to junior clerks, reviewing notes and presentations prior to review by residents and attendings. For this 2 week course, almost all time in the course will be spent in clinical settings under the supervision of attending psychiatrists and psychologists as well as senior residents in the Department of Psychiatry and Human Behavior. A small amount will be spent in seminars and case discussions. Traditional Clinical Rotation (5 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

**PSYCH 853. 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. Traditional - EL Clinical Rotation (10 hours)

**RADIO 651A. 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 CT’s 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 hours)

**RADIO 651B. 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 CT’s 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 Clinical Rotation (5 hours)

RADIO 656A. 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. Traditional - EL Clinical Rotation (5 hours)

RADIO 656B. 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. Traditional Clinical Rotation (5 hours)

RADIO 657A. Interventional Radiology. This is a 4 week rotation. Interventional Radiology covers vascular, GI, GU and biliary procedures under fluoroscopic and ultrasound guidance. We also perform ultrasound and CT scanner guided interventions. This offers the opportunity to be directly involved in patient care. Traditional Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

RADIO 852. 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. Traditional - EL Clinical Rotation (10 hours)

RADIO 853. 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. Traditional - EL Clinical Rotation (10 hours)

RADONC 651A. 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. Traditional Clinical Rotation (10 hours)

RADONC 651B. 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. Traditional Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

RADONC 853. 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. Traditional - EL Clinical Rotation (10 hours)

SURG 652A. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 652B. General Surgery. This course allows the medical student to spend 2 weeks 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. Traditional Clinical Rotation (5 hours)

SURG 653A. 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. Traditional - EL Clinical Rotation (12 hours)
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SURG 654A. 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. Traditional - EL Clinical Rotation (12 hours)

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SURG 655A. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 655B. 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. Traditional Clinical Rotation (5 hours)

SURG 656A. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 656B. 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. Traditional Clinical Rotation (5 hours)

SURG 657A. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 657B. 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. Traditional Clinical Rotation (5 hours)

SURG 658A. Urology. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 658B. Urology. 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. Traditional Clinical Rotation (5 hours)

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
SURG 659A. 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. Traditional - EL Laboratory (10 hours)

SURG 660A. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 660B. 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. Traditional Clinical Rotation (5 hours)

SURG 665A. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 665B. 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. Traditional Clinical Rotation (5 hours)

SURG 666A. 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. Traditional - EL Clinical Rotation (12 hours)

SURG 666B. 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. Traditional Clinical Rotation (5 hours)

SURG 668A. Transplant Surgery. Students will participate in the care of kidney, pancreas, and liver transplant patients, as well as hepatobiliary patients. Participation in at least one organ donor recover procedure is strongly encouraged. Traditional - EL Clinical Rotation (12 hours)

SURG 668B. Transplant Surgery. Students will participate in the care of kidney, pancreas, and liver transplant patients, as well as hepatobiliary patients. Participation in at least one organ donor recover procedure is strongly encouraged. Traditional Clinical Rotation (5 hours)

SURG 669A. Surgery Resident Prep Course. This is a 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 Clinical Rotation (5 hours)

SURG 670A. Surgery Outpatient Wound Care. This is a 4 week elective surgery rotation where fourth year medical students will gain experience in outpatient chronic wound care. This ambulatory core or elective is designed to expose fourth year medical students to outpatient chronic wound care. The student will be in the outpatient wound care clinic from 8am to 5pm, Monday through Friday working with our full time wound care physician, nurse practitioner or surgeon. The student will evaluate the patient to determine medical history that is contributing to the chronic wound, as well as, learn wound evaluation, diagnostic testing, diagnosis and management of the wound. The student will also become competent in dressing selection to aid the wound in healing. Traditional – EL Clinical Rotation (10 hours)

SURG 670B. Surgery Outpatient Wound Care. This is a 2 week elective surgery rotation where fourth year medical students will gain experience in outpatient chronic wound care. This ambulatory core or elective is designed to expose fourth year medical students to outpatient chronic wound care. The student will be in the outpatient wound care clinic from 8am to 5pm, Monday through Friday working with our full time wound care physician, nurse practitioner or surgeon. The student will evaluate the patient to determine medical history that is contributing to the chronic wound, as well as, learn wound evaluation, diagnostic testing, diagnosis and management of the wound. The student will also become competent in dressing selection to aid the wound in healing. Traditional – EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 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. Traditional - EL Clinical Rotation (10 hours)

SURG 853. 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. Traditional - EL Clinical Rotation (10 hours)
school of graduate studies in the health sciences

The University of Mississippi Medical Center
## 2020-2021 Academic Calendar

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 13</td>
<td>Monday</td>
<td>Registration begins for 2020-2021 Summer Semester</td>
</tr>
<tr>
<td>April 17</td>
<td>Friday</td>
<td><em><strong>Last day to submit an application for August 2020 degree</strong></em></td>
</tr>
<tr>
<td>May 1</td>
<td>Friday</td>
<td>Deadline for Summer Semester 2020-2021 applications (Graduate Certificate program only)</td>
</tr>
<tr>
<td>May 12</td>
<td>Tuesday</td>
<td>$50 Late Registration Fee For 2020-2021 Summer Semester Effective Today</td>
</tr>
<tr>
<td>May 22</td>
<td>Friday</td>
<td>2020 Commencement</td>
</tr>
<tr>
<td>May</td>
<td></td>
<td><em><strong>Last day to submit an application for August 2020 degree</strong></em></td>
</tr>
<tr>
<td>June 5</td>
<td>Friday</td>
<td>Last day to register for the Summer Semester and last day to add or drop a course</td>
</tr>
<tr>
<td>June 8</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>June 12</td>
<td>Friday</td>
<td>Deadline for completion of all requirements for August 2020 degree</td>
</tr>
<tr>
<td>June 24</td>
<td>Wednesday</td>
<td>Registration begins for 2020-2021 Fall Semester</td>
</tr>
<tr>
<td>July 3</td>
<td>Friday</td>
<td>Independence Day Holiday observed</td>
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<tr>
<td>July 6</td>
<td>Monday</td>
<td>Classes resume</td>
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<tr>
<td>July 17</td>
<td>Friday</td>
<td>Deadline for Fall Semester applications (Graduate Certificate program only)</td>
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<tr>
<td>July 27</td>
<td>Monday</td>
<td>$50 Late Registration Fee For 2020-2021 Fall Semester Effective Today</td>
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<tr>
<td>July 31</td>
<td>Friday</td>
<td>Last day of Summer Semester</td>
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<tr>
<td>August 4</td>
<td>Tuesday</td>
<td>Last day to submit grades</td>
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<tr>
<td>August 10</td>
<td>Monday</td>
<td>Classes begin</td>
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<tr>
<td>August 14</td>
<td>Monday</td>
<td>$100 Late Registration Fee For 2020-2021 Fall Semester Effective Today</td>
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<tr>
<td>August 21</td>
<td>Friday</td>
<td>Last day to register for Fall Semester</td>
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<tr>
<td>August 27</td>
<td>Thursday</td>
<td>Last day to withdraw from school or form a course without receiving a withdrawal grade and to receive a tuition refund</td>
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<tr>
<td>September 7</td>
<td>Monday</td>
<td>Labor Day Holiday observed</td>
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<tr>
<td>September 8</td>
<td>Tuesday</td>
<td>Classes resume</td>
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<tr>
<td>October 16</td>
<td>Friday</td>
<td>Deadline for completion of all requirements for December 2020 degree</td>
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<tr>
<td>October 30</td>
<td>Friday</td>
<td>Research Day School of Graduate Studies in the Health Sciences</td>
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<tr>
<td>November 2</td>
<td>Monday</td>
<td>Registration begins for 2020-2021 Spring Semester</td>
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<tr>
<td>November 25</td>
<td>Wednesday</td>
<td>Thanksgiving Holiday begins at 5:00pm</td>
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<tr>
<td>November 30</td>
<td>Monday</td>
<td>Classes resume</td>
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<tr>
<td>Nov/Dec 30-11</td>
<td>Monday-Friday</td>
<td>Fall Semester Examinations</td>
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<tr>
<td>December 11</td>
<td>Friday</td>
<td>End of Fall Semester</td>
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<tr>
<td>December 15</td>
<td>Tuesday</td>
<td>Last day to submit grades</td>
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<tr>
<td>December 18</td>
<td>Friday</td>
<td>Deadline for Spring Semester applications (Graduate Certificate program only)</td>
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<tr>
<td>December 28</td>
<td>Monday</td>
<td>$50 Late Registration Fee For 2020-2021 Spring Semester Effective Today</td>
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<tr>
<td>January 11</td>
<td>Monday</td>
<td>Classes Begin</td>
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<tr>
<td>January 11</td>
<td>Monday</td>
<td>$100 Late Registration Fee For 2020-2021 Spring Semester Effective Today</td>
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<tr>
<td>January 15</td>
<td>Friday</td>
<td>Last day to register for Spring Semester</td>
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<tr>
<td>January 18</td>
<td>Monday</td>
<td>Martin Luther King’s Birthday Holiday observed</td>
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<tr>
<td>January 19</td>
<td>Tuesday</td>
<td>Classes resume</td>
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<tr>
<td>January 22</td>
<td>Friday</td>
<td>Last day to add a course</td>
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<tr>
<td>January 28</td>
<td>Thursday</td>
<td>***Last day to submit an application for May 2021 degree</td>
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<tr>
<td>January 28</td>
<td>Thursday</td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
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<tr>
<td>February 10</td>
<td>Wednesday</td>
<td>Student Financial Wellness Seminar</td>
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<tr>
<td>March 15-19</td>
<td>Monday-Friday</td>
<td>Spring Break</td>
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<tr>
<td>March 22</td>
<td>Monday</td>
<td>Classes resume</td>
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<tr>
<td>March 26</td>
<td>Friday</td>
<td>Deadline for completion of all requirements for May 2021 degree</td>
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<tr>
<td>April 12</td>
<td>Monday</td>
<td>Registration begins for 2021-2022 Summer Semester</td>
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<tr>
<td>April 15</td>
<td>Thursday</td>
<td>Honors Day School of Graduate Studies</td>
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<tr>
<td>April 16</td>
<td>Friday</td>
<td><em><strong>Last day to submit an application for August 2021 degree</strong></em></td>
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<tr>
<td>April 26-30</td>
<td>Monday-Friday</td>
<td>Final Examinations</td>
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<td>Month</td>
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<td>April</td>
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<tr>
<td>May</td>
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HISTORY
The School of Graduate Studies in the Health Sciences (SGSHS) at the University of Mississippi Medical Center (UMMC) 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.

MISSION STATEMENT
The mission of the SGSHS 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.

PROGRAMS
The SGSHS offers degree programs leading to Master of Science (MS) and Doctor of Philosophy (PhD), and a post-baccalaureate certificate in Biochemistry. A listing of the graduate programs offered at the University of Mississippi Medical Center follows.

Master of Science Degree Programs
- Master of Science in Biomedical Sciences
- Master of Science in Clinical Investigation
  - Clinical Trials track
  - Maternal Fetal Medicine track
  - Population/Outcomes Research track
  - Translational Human Research track

Doctor of Philosophy Degree Programs
- Doctor of Philosophy in Biomedical Materials Science (Program no longer accepting new graduate students)
- Doctor of Philosophy in Biomedical Sciences
  - Biomedical Materials Sciences track
  - Bioimaging track
  - Pathology track
- Doctor of Philosophy in Cell and Molecular Biology
- Doctor of Philosophy in Clinical Anatomy
- Doctor of Philosophy in Experimental Therapeutics and Pharmacology
- Doctor of Philosophy in Microbiology and Immunology
- Doctor of Philosophy in Neuroscience
- Doctor of Philosophy in Nursing
- Doctor of Philosophy in Pathology (Program no longer accepting new graduate students)
- Doctor of Philosophy in Physiology and Biophysics

Post-Baccalaureate Certificate Program
- Certificate in Biochemistry (distance education)

ADMISSION TO THE SCHOOL OF GRADUATE STUDIES

ADMISSION REQUIREMENTS - Selection of applicants is made on a competitive basis, without regard to race, color, religion, sex, age, disability, marital status, national origin, sexual orientation, genetic information, 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 Enrollment Management. This application must include official transcript(s) of all undergraduate and graduate (if applicable) institutions attended. All non-U.S. transcripts must be evaluated on a course-by-course report from World Education Services (WES) at Educational Credential Evaluators (ECE). All transcripts and documents submitted to the Office of Enrollment Management in support of an application become the property of UMMC and will not be returned to an applicant or forwarded to another school or individual. The application may include an official statement of scores (verbal, quantitative and analytical) received on the Graduate Record Examination (GRE), Medical College Admission Test (MCAT), or Dental Admission Test (DAT); letters of recommendation; and/or 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. 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.

Additional prerequisites may be required by individual programs, and can be found in the program specific section of this document.

**Conditional Acceptance.** Acceptance to the SGSHS is conditional; the school 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.

Students who meet or exceed the minimum scores may be granted full admission to the SGSHS. Students who fail to meet minimum requirements may 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, meet or exceed the requirements on which the conditional admission is based. Conditional students who fail to meet the criteria on which they were admitted will be dismissed from the school. Notwithstanding the above, individual programs may set higher minimum standards than those required by the SGSHS.

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.

**English Language Proficiency.** 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 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.

**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** - All accepted applicants are required to be fingerprinted. Students receiving a stipend must be fingerprinted.

**DEADLINES FOR APPLICATIONS** - The SGSHS accepts applications throughout the calendar year. However, applications for a specific academic term must be received by the Office of Enrollment Management by the deadlines below:

- PhD programs: June 1
- MS Programs: June 1
- Post-Baccalaureate certificate in Biochemistry
  - Summer: May 1
  - Fall: July 17
  - Spring: December 18

Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1.

**APPLICATION FEE** - A nonrefundable fee of $25 must accompany the initial application.

**NON-DEGREE SEEKING STUDENTS** - UMMC employees who wish to take graduate courses but are not members of a SGSHS degree 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.

**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.

Degree programs may require a dissertation, thesis, or capstone project 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 student in the SGSHS:

**Observation** - The candidate must be able to acquire knowledge by direct observation of demonstrations, experiments, and experiences within the research and instructional setting.

**Intellectual/ 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.

**TUITION AND REQUIRED FEES**

Tuition and fees for the current academic year can be found on the institutional website. Tuition is subject to change pending information from the Institutions of Higher Learning (IHL).

**STUDENT COMPLAINTS**

Graduate students have the right to complain, whether verbally or in writing, regarding any area of academic or student life without fear of coercion, harassment, intimidation, or reprisal from the institution or its employees. More information on how students may file an official complaint can be found in the SGSHS Student Grievance and Complaint policy.

**TECHNOLOGY REQUIREMENTS**

**REQUIRED LAPTOPS**

Entering students are required to have a laptop computer which meets the annually revised UMMC Minimal Laptop Specifications, and must have video and audio communication capabilities (i.e. camera and microphone). Students should purchase a laptop meeting or exceeding the minimal specifications from regular retail channels. Students will be personally responsible for maintenance/repair of all personal devices. 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 the semester.

**ACADEMIC REQUIREMENTS**

**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** - Grades for academic credit will be awarded based on a 4 point grading scale according the Grading Policy. Grades are reported as a percentage, which are converted into a letter grade and reported on the transcript according to the following rubric: A, 90-100; B, 80-89; C, 70-79; F, 0-69. Under such a scale, a grade of A is assessed 4 points, a B is assessed 3 points, a C is assessed 2 points, and an F is assessed 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 greater than or equal to 3.0 (or 80% weighted numerical average) for a PhD student, or 2.8 (or 75% weighted numerical average) for a MS student, must be maintained.

**ADD OR DROP A COURSE** - A course may be added or dropped until the day specified by the academic calendar. A drop approval of a course completed on or before the day specified by the academic calendar will not be recorded on the student’s record. A drop approval after the day specified by the academic calendar will be recorded as a withdrawal (W) on the student’s record. A student can withdraw from a course and receive a W at any time up to the submission of the final grade for that course. Once the final grade has been submitted, withdrawal is not permitted. The request form to add or drop a class is found on the SGSHS website under forms. See the SGSHS ADD/Drop Course policy for more information.

**ACADEMIC PROBATION** – If at any time during an academic year the progress of a student is considered unsatisfactory or fails to meet the minimum requirements for Good Academic Standing, the student may be placed on academic probation or dismissed from the program.

**DISMISSAL FROM THE SCHOOL OF GRADUATE STUDIES** – Graduate students may be dismissed from the graduate program for cause. This may include unsatisfactory academic performance and/or lack of progress, 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. See the SGSHS Dismissal policy for more information.

**WITHDRAWAL FROM THE GRADUATE SCHOOL** - Registration in an academic program makes the student responsible for completion of the course of study unless the student withdraws from the curriculum. See the SGSHS Withdrawal policy for more information.

**LEAVE OF ABSENCE** - Leave of absence from graduate school may be granted by the dean or his/her administrative designee to students who meet the conditions listed in the Graduate Handbook. See the SGSHS Leave of Absence policy for more information.

**COURSE LOAD** - A full-time course load in the School of Graduate Studies is nine credit hours per semester except for the summer term when one credit hour is sufficient. A student who is admitted to candidacy and is working on his/her thesis or dissertation may be classified as full-time while registering for one credit hour.
ENROLLMENT REQUIREMENTS – Once accepted into the SGSHS, students must be continuously enrolled in classes until the degree is completed or have been granted a leave of absence. Failure to adhere to this requirement will result in administrative withdrawal from the SGSHS. A minimum of 30 (semester) credit hours beyond a baccalaureate degree is required for the Master’s of Science degree. The time limit for completing all requirements for a MS degree is six years from the date of first registration. All doctorate degrees require a minimum of 60 credit hours beyond a baccalaureate degree (or 30 credit hours beyond a master’s degree). The PhD degree generally requires five to six years, but must take no more than five years following admission to candidacy. All requirements for the certificate program must be completed within a two-year time span. Credit hour requirements may differ from program to program, thus students should consult with their program director for specific details. See the SGSHS Enrollment policy for more information.

TRANSFER CREDIT POLICY
A limited amount of graduate credits earned at another recognized institution may be accepted toward degree requirements at UMMC. All transfer course work is evaluated and accepted work is recorded, without changes in grades, as part of the student’s permanent academic record. See the SGSHS Transfer of Credit policy for more information.

GRADUATE PROGRAMS

POST- BACCALAUREATE CERTIFICATE

BIOCHEMISTRY– fully online

PROGRAM DIRECTOR: Bettye Sue Hennington, PhD, Director

PROGRAM DESCRIPTION: The graduate certificate program in Biochemistry is a distance education program aimed at working professionals or graduates whose professions are impacted by the field of medical biochemistry. Students who successfully complete 11 credit hours will be able to demonstrate knowledge in the areas of biochemistry, enzymology, cellular metabolism, biotechnology, forensics, and genetic deficiencies of human disease.

PROGRAM OUTCOMES: The program is designed for working professionals as well as post-baccalaureate students whose professions are impacted by the field of medical biochemistry with an understanding of medical biotechnology and underlying genetic deficiencies of common metabolic disorders.

ADMISSION REQUIREMENTS: The program accepts students for fall, spring, and summer enrollment. Application deadlines for each semester are listed below:

- Summer: May 1
- Fall: July 17
- Spring: December 18

Post-baccalaureate certificate applicants will be evaluated on the following:

- Baccalaureate degree in a science-related field or must have completed five semester courses in biology, chemistry, physics, engineering, or math;
- A cumulative GPA of 2.0 or better on a 4.0 scale;
- Official transcripts from all school attended

GRADUATION REQUIREMENTS: Students must successfully complete 11 credit hours of coursework for certificate completion. Students are required to complete CMB 705 Biochemistry I: Molecular, Structural, and Cellular Function and CMB 706 Biochemistry II: Enzymology and Cellular Metabolism. Students are also required to take one of the remaining two components to fulfill the certificate program. Students may take all four courses if desired.

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<th>SEMESTER 1</th>
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<tbody>
<tr>
<td>CMB 705</td>
<td>Biochemistry I</td>
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<td>CMB 707</td>
<td>Biochemistry III</td>
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<th>SEMESTER 2</th>
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<tbody>
<tr>
<td>CMB 706</td>
<td>Biochemistry II</td>
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<tr>
<td>CMB 708</td>
<td>Biochemistry IV</td>
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MASTER OF SCIENCE DEGREE PROGRAMS

BIOMEDICAL SCIENCES

PROGRAM DIRECTOR: Hanna Broome, PhD, Program Director

PROGRAM DESCRIPTION: The Master of Science in Biomedical Sciences (MS-BMS) degree program is designed to meet the needs of those students seeking to broaden and deepen their scientific knowledge base in their pursuit of dental, medical, physician assistant, pharmacy or graduate (PhD) school admission; junior/community college level teaching positions; and government employment opportunities. The program trains students in biochemistry, physiology, pharmacology, microbiology and immunology, human anatomy, cell biology and histology, biomedical research and more.

PROGRAM OBJECTIVES: Upon successful completion of the degree program, students will be able to compare/contrast and distinguish between multiple concepts and facets of biomedical science, and apply knowledge of these concepts in order to solve discrete equations and complex clinical scenarios. In addition, students will learn how to better manage their time and improve study strategies in preparation for the demands of professional school or the workforce.
ADMISSION REQUIREMENTS - The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1.
MS in Biomedical Sciences applicants will be evaluated on the following:
- Baccalaureate degree in a relevant scientific discipline
- Transcripts from all previous colleges and universities attended
- A cumulative GPA of 3.0 or better on a 4.0 scale
- A personal statement highlighting strengths, motivation for admission to the program, and leadership and service record
- A GRE score ≥295 on the combined verbal and quantitative scores, or a DAT score ≥15, or an MCAT score ≥492

Applicants to the MS BMS degree program who are participants in the Professional Portal Program must be recommended by the Admissions Committee of either the UMMC School of Dentistry (SOD) or School of Medicine (SOM), and must meet the minimum admission criteria for the MS in Biomedical Sciences program.

Because of space constraints, this program is limited to legal residents of Mississippi, U.S. citizens, and permanent residents of the U.S.A. (Green Card Holders). In addition, because an important aspect of UMMC’s mission is training health care providers for Mississippi, preference is given to Mississippi residents.

PROGRAM COMPLETION REQUIREMENTS: 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% in a minimum of 30 credit hours beyond the BS or BA degree. Students must successfully complete a minimum of 10 credit hours from the courses listed in Group A and B below. A typical course of study for students interested in professional or graduate school is shown below.

CORE COURSES - 10 of the 30 hours required for graduation must be selected from the core courses below.

**Group A (at least 2 courses must be chosen from this group):**
- CMB 704 Fundamental Biochemistry (or another CMB course)
- PHYSIO 725 Fundamental Physiology (or another PHYSIO course)
- MICRO 741 Fundamental Microbiology (or another MICRO course)
- PHARM 726 Fundamental Pharmacology (or another PHARM course)
- BMS 701A and B Fundamentals of Materials Science A and B
- ANAT 715 Neurobiology (or another Neuroscience course)
- ID 767 Fundamental Histology and Cell Biology (or ANAT 713)
- ID 768 Essential Anatomy (or ANAT 711)

**Group B (at least 1 course must be chosen from this group):**
- ID 709 Responsible Conduct in Research
- ID 740 Statistical Methods in Research I
- ID 727 Professional Development for Biomedical Careers

PRE-DENTAL AND PRE-MEDICAL PLAN OF STUDY
The 32 credit hour plan of study outlined below is recommended for those students with a goal to pursue dental or medical school following the completion of this degree program. For students wishing additional study in a particular discipline, elective courses may be substituted, as long as a minimum of 10 hours of coursework come from the CORE COURSES listed above. These students should consult the director for the MS-Biomedical Sciences program for alternative study plans.

**YEAR 1- FALL**
- CMB 704 Fundamental Biochemistry 6
- ID 767 Fundamental Histology and Cell Biology 3
- PHYSIO 725 Fundamental Physiology 7
- ID 727 Professional Development for Biomedical Careers 1
  **17**

**YEAR 1- SPRING**
- MICRO 741 Fundamental Microbiology and Immunology 6
- PHARM 726 Fundamental Pharmacology 6
- ID 768 Essential Anatomy 3
  **15**

**ELECTIVE OPTIONS**
- ID 715 Teaching in Higher Education 3
- ID 716 Teaching Practicum 1-3
- ID 737 Research in Biomedical Sciences 1-6

**CLINICAL INVESTIGATION PROGRAM**
**PROGRAM DIRECTOR:** Kedra Wallace, PhD
**Joshua Mann, MPH, MD, Associate Program Director**
**PROGRAM DESCRIPTION:** 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 four principle areas:

- Clinical Trials
- Population/Outcomes Research
- Translational Human Studies
- Maternal Fetal Medicine

**PROGRAM OBJECTIVES:** The objectives of this program are to increase research education and research design skills of clinicians or individuals who work in clinical settings.

**ADMISSION REQUIREMENTS** – The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1.

MS in Clinical Investigation applicants will be evaluated on the following:

- Terminal doctoral degree (MD, PhD, DMD, etc.) or demonstrate significant work experience relevant to the degree program and have demonstrable involvement with patients.
  - Applicants to the Maternal-Fetal-Medicine track must have concurrent admission to the UMMC Obstetrics & Gynecology Maternal-Fetal-Medicine Fellowship program.
- Three letters of recommendation
  - Letter of support from Division Chief or Department Chair
  - Letter of support from research mentor
  - Letter of recommendation
- A personal statement which includes career goals, a brief description of research plan, and identification of research mentor
- Applicant’s curriculum vitae
- Mentor’s curriculum vitae
- Transcripts from all previous colleges and universities attended
- Applicants should be in good standing with their department at the time of admission.

Admission to the program will be competitively determined by the admissions committee and will be 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.

**PROGRAM COMPLETION REQUIREMENTS:** The MS in Clinical Investigation program requires a minimum of 30 credit hours. 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% in a minimum of 30 credit hours beyond the BS or BA degree.

- **REQUIRED COURSEWORK** - All students must pass ID 709 (Responsible Conduct in Research).
- **CAPSTONE PROJECT/THESIS** – Tracks require successful completion of a capstone project or thesis as a requirement for graduation. The capstone project or thesis should show evidence of original investigation, and must be approved by the advisory committee and the SGSHS Dean. An oral examination and defense is mandatory in tracks requiring a thesis. The candidate’s advisory committee will conduct the examination.

**CORE COURSES**

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<td>Statistical Methods in Research I</td>
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<tr>
<td>MSCI 790</td>
<td>Grant and Scientific Writing</td>
</tr>
<tr>
<td>ID 709</td>
<td>Responsible Conduct in Research</td>
</tr>
<tr>
<td>MSCI 791</td>
<td>Capstone Project</td>
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**CLINICAL TRIALS TRACK PLAN OF STUDY:**

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**YEAR 1-SPRING**

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### YEAR 2-FALL
- MSCI 791 Capstone Project 1+  
  *Electives 1+  
  9

### YEAR 2-SPRING
- MSCI 791 Capstone Project 1+  
  *Electives 1+  
  9

*Electives - Clinical Trials Track:
- ID 741 Statistical Methods in Research II 3  
- MSCI 711 Epidemiology II 3  
- MSCI 742 Introduction to Comparative Effectiveness Research 1  
- MSCI 740 Drug and Device Development Process 1  
- MSCI 732 Clinical Trials Applications 3  
- MSCI 741 Mechanics of Ethical and Regulatory Issues in Clinical Research 1

### POPULATION/OUTCOMES RESEARCH TRACK PLAN OF STUDY:
#### YEAR 1-FALL
- MSCI 710 Epidemiology I 3  
- ID 740 Statistical Methods in Research I 3  
- MSCI 791 Capstone Project 1+  
  Elective 1+  
  9

#### YEAR 1-SPRING
- ID 709 Responsible Conduct in Research 1  
- MSCI 790 Grant and Scientific Writing 1  
- MSCI 791 Capstone Project 1+  
  **Elective 1+  
  9

#### YEAR 2-FALL
- MSCI 791 Capstone Project 1+  
  **Elective 1+  
  9

#### YEAR 2-SPRING
- MSCI 791 Capstone Project 1+  
  **Elective 1+  
  9

**Electives - Population/Outcomes Track:
- ID 741 Statistical Methods in Research II 3  
- MSCI 711 Epidemiology II 3  
- ID 717 Special Topics in Biostatistics, Bioinformatics, and Epidemiology 3  
- MSCI 730 Perspectives in Multidisciplinary and Clinic 1  
- ID 630 Health Care Quality Improvement 3  
- ID 725 Environmental Health 3  
- ID 701 Introduction to Geographic Information Systems 3  
- ID 718 Health Policy and the Healthcare System 3  
- MSCI 713 GIS in Healthcare and Epidemiology 3  
- PHS 700 Essentials of Population Health Science 3

### TRANSLATIONAL HUMAN STUDIES TRACK PLAN OF STUDY:
#### YEAR 1-FALL
- MSCI 710 Epidemiology I 3  
- ID 740 Statistical Methods in Research I 3  
- MSCI 791 Capstone Project 1+  
  ***Elective 1+  
  9

#### YEAR 1-SPRING
- ID 709 Responsible Conduct in Research 1  
- MSCI 790 Grant and Scientific Writing 1  
- MSCI 791 Capstone Project 1+  
  ***Elective 1+  
  9
### YEAR 2 - FALL
- **MSCI 791**  Capstone Project  1+
- ***Elective***  1+  9

### YEAR 2 - SPRING
- **MSCI 791**  Capstone Project  1+
- ***Elective***  1+  9

#### ***Electives - Translational Human Studies Track***
- **ID 741**  Statistical Methods in Research II  3
- **MSCI 722**  Principles of Translational Research  3
- **MSCI 721**  Biomarkers, Bioimaging, and Bioinformatics  3

#### MATERNAL FETAL MEDICINE TRACK PLAN OF STUDY:

##### YEAR 1 - FALL
- **MFM 612**  MFM Research Methods, Projects & Applications  3
- **ID 740**  Statistical Methods in Research I  3
- **MSCI 791**  Capstone Project  3  9

##### YEAR 1 - SPRING
- **ID 709**  Responsible Conduct in Research  1
- **MFM 606**  Antenatal Diagnosis I  3
- **MSCI 791**  Capstone Project  5  9

##### YEAR 2 - FALL
- **MFM 607**  Antenatal Diagnosis II  3
- **MSCI 790**  Grants & Scientific Writing  1
- **MSCI 791**  Capstone Project  5  9

##### YEAR 2 - SPRING
- **MFM 608**  Antenatal Diagnosis III  3
- **MSCI 791**  Capstone Project  6  9

##### YEAR 3 - FALL
- **MFM 609**  Antenatal Diagnosis IV  3
- **MSCI 710**  Epidemiology I  3
- **MSCI 791**  Capstone Project  3  9

##### YEAR 3 - SPRING
- **MSCI 791**  Capstone Project  9

### DOCTOR OF PHILOSOPHY DEGREE PROGRAMS

#### BIOMEDICAL MATERIALS SCIENCE  (Program no longer accepting new graduate students)

**PROGRAM DIRECTOR:** Susana M. Salazar Marocho, PhD, Director

**PROGRAM DESCRIPTION:** Students complete the prescribed course work and a hands-on research project giving them a solid background in materials science and biomaterials. Graduates of the program will possess the necessary skills for research careers in academia as well as industry. The program focuses on the fundamental understanding of materials science, materials formulation and processing, and the biological principles that govern the response to biomedical materials and devices when implanted in the body. Students are educated through didactic instruction, laboratories, and involvement in active research projects. Depending on a student’s educational background (some may be stronger in biological sciences while others may have greater strengths in engineering), an individualized curriculum will be implemented. Students will be taught to present the results of their scientific investigations, both orally and in peer-reviewed publications, cogently, with appropriate statistical analysis.

**PROGRAM OBJECTIVES:**
- Analyze how material microstructures will be changed by altering chemical composition and processing steps.
- Analyze how the physical and chemical properties of materials will be changed by altering the material microstructure.
- Evaluate the special considerations for the use of materials in medical device, diagnostic, and drug applications.
- Demonstrate understanding of the mechanisms of interactions between biomaterials and the physiological systems to effectively interact with medical and biological specialists.
- Demonstrate the ability to interpret the data obtained from various analytical techniques to characterize materials structure and properties.
• Demonstrate the ability to identify the appropriate analytical techniques to characterize materials structure and properties.
• Demonstrate competency in dissemination of original research through oral presentations and written communications.
• Demonstrate competency in critical evaluation of the published scientific literature.

ADMISSION REQUIREMENTS – Admission for the program is currently suspended.

PROGRAM COMPLETION REQUIREMENTS: 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. 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.

• QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY - The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.

• 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 SGSHS. 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 on 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.

• REQUIRED COURSEWORK - All students must successfully complete ID 709 (Responsible Conduct in Research). In addition, all graduate students must successfully pass ID 714 (Professional Skills).

• 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.

PLAN OF STUDY

Students 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:

ID 715  Teaching in Higher Education
BMS 703A/B  Experimental Methods in Materials Science A/B
BMS 710  Fundamentals of Polymer Science
                 OR
BMS 711  Fundamentals of Ceramics
                 OR
BMS 712  Fundamentals of Metals
BMS 728  Failure Analysis of Medical Implants
BMS 730  Grant Writing and Management

For students being admitted from another MS program or directly from a BS 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 702A  Fundamental of Biomaterials 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  12

YEAR 1 - SPRING
BMS 701B  Fundamentals of Materials Science B  3
BMS 702B  Fundamental of Biomaterials B  3
BMS 703B  Experimental Methods in Materials Science B  1
ID 709  Responsible Conduct in Research  1
BMS 798  Dissertation and Dissertation Research  4  12

YEAR 2 - SUMMER
BMS 798  Dissertation and Dissertation Research  1  1
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<td>ID 740 Statistical Methods in Research I (if not already taken) 3</td>
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<td>ID 714 Professional Skills 3</td>
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<td>BMS 798 Dissertation and Dissertation Research 1+</td>
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## BIOMEDICAL SCIENCES

**PROGRAM DIRECTOR:** Susana M. Salazar Marocho, PhD

**PROGRAM DESCRIPTION:** The Doctor of Philosophy in Biomedical Sciences program is intended to educate and train the next generation of biomedical researchers. The program is an interdisciplinary program and emphasizing specific training in areas of biomedical sciences, pathology, biomedical imaging, and biomedical materials science. The plan of study begins with coursework, followed by a combination of coursework and laboratory research, and finishes with mentored research on an independent project in the laboratory of one of the program faculty. Students will be educated through didactic instruction, laboratory practicums, and involvement in active research projects. Successful graduates of the program will be expected to possess the necessary skills for research careers in academia as well as industry through independent and collaborative research practices.

**PROGRAM OBJECTIVES:** The objectives for the program are to educate and train individuals to become independent research investigators, teachers and mentors with a broad understanding of the relevant field as well as focused training within a subset of the areas of study. These objectives apply whether the individual’s ultimate career goal is to work in academic, government, industrial or administrative settings.

**ADMISSION REQUIREMENTS:** The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1.

Applicants will be evaluated based on the following:

- Baccalaureate degree in a relevant scientific discipline (i.e. engineering, science, or healthcare)
  - Students from other disciplines with appropriate preparation may be considered on a case-by-case basis.
  - Students wishing to enter the Biomedical Imaging track, must have concurrent admission to the UMMC Radiologic Sciences residency program.
- Transcripts from all previous colleges and universities attended
- A cumulative GPA of 3.0 or better on a 4.0 scale
- Three letters of recommendation
- A personal statement
- A GRE score ≥300 on the combined verbal and quantitative scores is preferred.

**PROGRAM COMPLETION REQUIREMENTS:** 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. 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.

- **QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY** - The Qualifying Examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.
- **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 on 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.
- **Required Coursework** - All students must pass ID 709 (Responsible Conduct in Research). In addition, all graduate students must successfully pass ID 714 (Professional Skills).
- **Publication Requirement** - 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.
- 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 Materials Science Track

**Track Director:** Susana M. Salazar Marocho, PhD

#### Year 1 – Fall

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<td>BMS 701A</td>
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<td>Fundamental of Biomaterials A</td>
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<td>BMS 703A</td>
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<td>BMS 718</td>
<td>Statistics for Materials Study</td>
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<td>BMS 702B</td>
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<td>ID 715</td>
<td>Teaching in Higher Education</td>
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<td>ID 737</td>
<td>Research in Biomedical Sciences</td>
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#### Years 3+ - Fall

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### PATHOLOGY TRACK

**YEAR 1 – FALL**
- ANAT 713 Histology and Cell Biology 3
- CMB 710 Biochemistry 10
- BMS 700 Biomedical Sciences Journal Club 1

**YEAR 1 - SPRING**
- ANAT 713 Histology and Cell Biology 3
- BMS 737 Research in Biomedical Sciences 3
- BMS 700 Biomedical Sciences Journal Club 1
- ID 709 Responsible Conduct in Research 1
- Elective* 1-3

**YEAR 2 - SUMMER**
- BMS 737 Research in Biomedical Sciences 1

**YEAR 2 – FALL**
- ID 740 Statistical Methods in Research I 3
- BMS 700 Biomedical Sciences Journal Club 1
- ID 737 Research in Biomedical Sciences 3
- PATH 721** General Pathology 8
- Elective* 1+

**YEAR 2 – SPRING**
- PATH 721** General Pathology 8
- ID 737 Research in Biomedical Sciences 1
- Elective* 1+

**YEARS 3+ - SUMMER**
- BMS 798 Dissertation and Dissertation Research 1
- Elective* 1+

**YEARS 3+ - FALL**
- BMS 798 Dissertation and Dissertation Research 1
- Elective* 1+

**YEARS 3+ - SPRING**
- ID 714 Professional Skills 3
- BMS 798 Dissertation and Dissertation Research 1
- Elective* 1+

### BIOIMAGING TRACK

**Track director:** Candace Howard-Claudio, MD, PhD

**YEAR 1 – FALL**
- ID 740 Statistical Methods in Research I 3
- BMS 737 Research in Biomedical Sciences 2
- BMS 700 Biomedical Sciences Journal Club 1
- BMS 743 Medical Imaging Physics 3

**YEAR 1 - SPRING**
- BMS 737 Research in Biomedical Sciences 5
- BMS 700 Biomedical Sciences Journal Club 1
- BMS 741 Imaging Anatomy 3

**YEAR 2 - SUMMER**
- BMS 737 Research in Biomedical Sciences 1

**YEAR 2 – FALL**
- ID 715 Teaching in Higher Education 3
- BMS 737 Research in Biomedical Sciences 3
- BMS 742 Introduction to Gene Therapy Techniques 3
YEAR 2 - SPRING
BMS 737  Research in Biomedical Sciences  1+
ID 709  Responsible Conduction in Research  1
MSCI 791  Grant and Scientific Writing  1
BMS 797  Biomedical Sciences- Dissertation Proposal  1+
BMS 700  Biomedical Sciences Journal Club  1

YEAR 3 - SUMMER
BMS 798  Dissertation and Dissertation Research  1
Elective*  1+

YEAR 3 - FALL
BMS 798  Dissertation and Dissertation Research  1
BMS 740  Advanced Gene Therapy  3

YEAR 3 - SPRING
ID 714  Professional Skills  3
BMS 798  Dissertation and Dissertation Research  1
BMS 700  Biomedical Sciences Journal Club-  1

YEARS 4+ - SUMMER
BMS 798  Dissertation and Dissertation Research  1

YEARS 4+ - FALL
BMS 798  Dissertation and Dissertation Research  1
ID 716  Teaching Practicum  1+

YEARS 4+ - FALL
BMS 798  Dissertation and Dissertation Research  1
BMS 700  Biomedical Sciences Journal Club  1

CELL AND MOLECULAR BIOLOGY PROGRAM
PROGRAM DIRECTOR: Michael Hebert, PhD

PROGRAM DESCRIPTION: The 4-5 year 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 pre-doctoral funding is promoted as an essential part of the students’ training and development. The program in Cell and Molecular Biology is strongly committed to graduate research and teaching. A particular advantage is that the program faculty are relatively small in size, which promotes close scientific interactions between faculty members and students.

PROGRAM OBJECTIVES: The primary objectives of the PhD program in Cell & Molecular Biology is to:
- Train graduates who will have highly productive careers in cell and molecular biology that contribute to the overall advancement of the cell and molecular biology sciences,
- Educate the next generation of integrative cell and molecular biologists, and
- Extend the knowledge base of integrative cell and molecular biologists.

ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1.
Applicants will be evaluated based on the following:
- Baccalaureate degree in a relevant scientific discipline
- Transcripts from all previous colleges and universities attended
- A cumulative GPA of 3.0 or better on a 4.0 scale
- Three letters of recommendation
- A personal statement
- A GRE score ≥300 on the combined verbal and quantitative scores is preferred.
PROGRAM COMPLETION REQUIREMENTS: 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. 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.

- QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY - The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.

- 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.

REQUIRED COURSEWORK - All students must pass ID 709 (Responsible Conduct in Research). In addition, all graduate students must successfully pass ID 714 (Professional Skills).

- PUBLICATION REQUIREMENT - 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.

PLAN OF STUDY

YEAR 1 - FALL
CMB 710  Biochemistry  10
CMB 740  Biochemical Methods  2

YEAR 1 - SPRING
CMB 711  Mechanisms of Enzyme Action  2
CMB 715  Physical Biochemistry  2
CMB 741  Advanced Biochemical Methods  3
CMB 720  CMB Journal Club (Seminar)  1
ID 709  Responsible Conduct in Research  1
Elective  1

YEAR 2 – SUMMER
CMB 760  CMB Research  1

YEAR 2 - FALL
CMB 720  CMB Journal Club (Seminar)  1
CMB 760  CMB Research  8

YEAR 2 - SPRING
CMB 744  Cellular Biochemistry  6
CMB 720  CMB Journal Club (Seminar)  1
ID 710  Research Tools in Molecular Biology  3
CMB 760  CMB Research  1
ID 714  Professional Skills  3

YEAR 2 - SUMMER
CMB 760  CMB Research  1

YEAR 3+ - FALL
CMB 798  Dissertation and Dissertation Research  9

YEAR 3+ - SPRING
CMB 798  Dissertation and Dissertation Research  1
CLINICAL ANATOMY

PROGRAM DIRECTOR: Andrew Notebaert, PhD

PROGRAM DESCRIPTION: The PhD degree program in Clinical Anatomy is aimed at training the next generation of educators and scholars in the field. The program is 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 and developmental anatomy, histology (microanatomy), neuroanatomy, and will be trained in educational theory and skills. 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. In addition, the program will train students to teach at the post-graduate level and to do research in clinical anatomy or the teaching of anatomy. During the first two years students will be exposed to basic anatomical content, education content, and educational research. Beginning their second year, students will take one teaching practicum each semester. In addition, students will perform research rotations with various faculty in which they will be introduced to educational research in anatomy, research in clinical anatomy, or both. These rotations are intended to aid students in choosing their advisors. Core courses can be taken in any order unless part of a sequence, but all of them have to be completed prior to the beginning of the third year so that the candidacy examination can be taken during the second summer of the program.

PROGRAM OBJECTIVES: The objectives for the Clinical Anatomy program are to educate and train individuals to become educator scholars of the anatomical sciences; those who have the knowledge to use evidence-based practices to teach and also to publish educational research to help inform others about these best practices.

ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1. Applicants will be evaluated based on the following:

- Baccalaureate degree in a relevant scientific discipline
- Transcripts from all previous colleges and universities attended
- A cumulative GPA of 3.0 or better on a 4.0 scale
- Three letters of recommendation
- A personal statement
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PROGRAM COMPLETION REQUIREMENTS: 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. 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.

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- PUBLICATION REQUIREMENT - 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.

PLAN OF STUDY

YEAR 1 - FALL

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<td>ANAT 716</td>
<td>Developmental Anatomy</td>
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<td>ANAT 722</td>
<td>Topics in Contemporary Anatomy</td>
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<td>ANAT 742</td>
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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
YEAR 1 - SPRING
ANAT 713 Histology & Cell Biology 4
ANAT 715 Neurobiology 4
ANAT 717 Clinical Anatomy Research Rotations 3
ANAT 743 Pedagogy in the Health Sciences 3
ID 709 Responsible Conduct in Research 1

YEAR 2 - SUMMER
ANAT 717 Clinical Anatomy Research Rotations 1

YEAR 2 - FALL
ANAT 744 Health Sciences Curriculum Development 3
ANAT 745 Clinical Anatomy Research Project 3
ID 740 Statistical Methods in Research I 3
*Teaching Practicum course 3-6
12+

YEAR 2 - SPRING
ANAT 745 Clinical Anatomy Research Project 3
*Teaching Practicum Course 3-6
**Elective 1+
7+

YEAR 3+ - SUMMER
ANAT 717 Clinical Anatomy Research Rotations 1

YEAR 3+ - FALL
ANAT 798 Dissertation and Dissertation Research 1

YEAR 3+ - SPRING
ANAT 798 Dissertation and Dissertation Research 1
ID 714 Professional Skills 3

YEAR 4+ - SUMMER
ANAT 798 Dissertation and Dissertation Research 1

TEACHING PRACTICUM COURSES
ANAT 730 Teaching Practicum in Gross Anatomy 6
ANAT 731 Teaching Practicum in Histology and Cell Biology 1-3
ANAT 733 Teaching Practicum in Neurobiology 3
ANAT 734 Teaching Practicum in Graduate Anatomy 2
* Teaching practicum courses are selected from the list above. Semester hours depend on the practicum selected.
** Electives are selected with the guidance of the program director or the student’s advisor.

EXPERIMENTAL THERAPEUTICS AND PHARMACOLOGY

PROGRAM DIRECTOR: Jan Michael Williams, PhD, Program Director

PROGRAM DESCRIPTION: The field of pharmacology is very broad and offers many research directions and opportunities. Curiosity, drive, and dedication allow 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 Experimental Therapeutics and 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. Research interests of the faculty are diverse and include the cardiovascular and renal systems, pregnancy, metabolic diseases, 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, and translational techniques and bioinformatics are used to investigate the genetic and molecular basis of human diseases.

PROGRAM OBJECTIVES: The primary objective of Experimental Therapeutics and Pharmacology Program is to train individuals for a successful independent career in pharmacology, toxicology or a related biomedical science.
ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1. Applicants will be evaluated based on the following:

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- Three letters of recommendation
- A personal statement
- A GRE score ≥300 on the combined verbal and quantitative scores is preferred.

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PLAN OF STUDY

YEAR 1 - FALL

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<td>PHARM 724</td>
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<td>Fundamental Pharmacology</td>
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YEAR 2 - FALL

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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
## MICROBIOLOGY AND IMMUNOLOGY

**PROGRAM DIRECTOR:** Ritesh Tandon, PhD

**PROGRAM DESCRIPTION:** Our core curriculum includes introductory courses in medical microbiology and biochemistry, and specialized graduate courses in immunology, bacterial physiology and virology. In addition to laboratory research under the direction of a faculty mentor, training includes formal course work, seminars, and journal clubs. 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.

**PROGRAM OBJECTIVES:** The goals of the PhD program in Microbiology and Immunology are to train highly qualified researchers who will make significant contributions to the fields of Bacteriology, Virology, Parasitology and Immunology and educate those who will teach the next generation of health care professionals and research scientists.

**ADMISSION REQUIREMENTS:** The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1.

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PLAN OF STUDY

YEAR 1 - FALL
MICRO 701 Medical Microbiology 6
CMB 710 Biochemistry 10

YEAR 1 - SPRING
MICRO 701 Medical Microbiology 6
MICRO 702 Molecular and Cellular Virology 3
MICRO 725 Bacterial Structure and Function 3
ID 709 Responsible Conduct of Research 1

YEAR 2 – SUMMER
MICRO 707 Microbiology & Immunology Lab Rotations 3
MICRO 703 Seminar in Microbiology & Immunology 1

YEAR 2 - FALL
MICRO 708 Preparation for Instruction in Microbiology 3
MICRO 704 Research in Microbiology & Immunology 6

YEAR 2 - SPRING
MICRO 733 Experimental Immunochemistry and Immunology 3
MICRO 703 Seminar in Microbiology & Immunology 1
MICRO 704 Research in Microbiology & Immunology 2+
Elective* 3

YEAR 3- SUMMER
MICRO 704 Research in Microbiology & Immunology 1

YEAR 3- FALL
MICRO 704 Research in Microbiology & Immunology 1

YEAR 3- SPRING
ID 714 Professional Skills 3
MICRO 703 Seminar in Microbiology & Immunology 1
Elective* (recommended, but optional) 1+ 4+

YEAR 4+
MICRO 703 Seminar in Microbiology & Immunology 1
MICRO 750 Proposal in Microbiology & Immunology 3
MICRO 798 Dissertation and Dissertation Research 1
Elective* (recommended, but optional) 1+ 6+

*ID 715. Teaching in Higher Education 1 credit hour
ID 716. Teaching Practicum 1-3 credit hours
ID 713. Bioinformatics and Genomics 3 credit hours

NEUROSCIENCE

PROGRAM DIRECTOR: Douglas Vetter, PhD

PROGRAM DESCRIPTION: 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 UMMC. 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 (NSCI 708) focusing on current issues of interest in neuroscience, Tutorials in Neuroscience (NSCI 710) focusing on scientific rigor, experimental design and use of statistics in neuroscience research, and Fundamental Biochemistry (CMB 704). Students also engage in a series of up to six 4-5 week surveys (introductory laboratory rotations) of different research laboratories affiliated with the program (NSCI 790). During the second year of study, students engage in intensive Senior Laboratory Rotations (NSCI 791), which typically are focused within the students’ planned dissertation laboratories. Throughout the first two years of study, students also engage in professional skills development with courses in Neuroscience Journal
Club (NSCI 720), Scientific Writing (NSCI 721), and Responsible Conduct in Research (ID 709). In addition, students must successfully pass a Qualifying Examination, which consists of developing and defending a research proposal students select from topics provided by the neuroscience faculty. This is normally completed in the summer between the second and third years. Successful completion is required in order to be admitted to candidacy for a dissertation.

PROGRAM OBJECTIVES: 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.

ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1.

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- REQUIRED COURSEWORK - All students must pass ID 709 (Responsible Conduct in Research). In addition, all graduate students must successfully pass ID 714 (Professional Skills).
- PUBLICATION REQUIREMENT - 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.

PLAN OF STUDY

YEAR 1 - FALL
NSCI 701 Foundations in Neuroscience 7
CMB 704 Fundamental Biochemistry 6
NSCI 720 Neuroscience Journal Club 1
NSCI 790 Laboratory Rotation Surveys 3

YEAR 1 - SPRING
NSCI 701 Foundations in Neuroscience 6
NSCI 710 Tutorials in Neuroscience 1
NSCI 790 Laboratory Rotation Surveys 3
NSCI 720 Neuroscience Journal Club 1
ID 709 Responsible Conduct in Research 1

YEAR 2 - SUMMER
NSCI 791 Senior Laboratory Rotation 1
NSCI 708 Special topics in Neuroscience 3

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
| YEAR 2 - FALL | NSCI 720 | Neuroscience Journal Club | 1 |
| YEAR 2 - SPRING | NSCI 721B | Scientific Writing in Neuroscience B | 3 |
| | NSCI 720 | Neuroscience Journal Club | 1 |
| | NSCI 791 | Senior Laboratory Rotation | 6 |
| | | | 10 |
| YEAR 3 – SUMMER | NSCI 791 | Senior Laboratory Rotation | 9 |
| YEAR 3+ | NSCI 798 | Dissertation Research | 1 |
| | NSCI 720 | Neuroscience Journal Club | 1 |
| | ID 714 | Professional Skills | 3 |
| | ID 715 | Teaching in Higher Education (optional, but recommended) | 3 |
| | ID 716 | Teaching Practicum (optional, but recommended) | 1 |
| | | | 8+ |

**NURSING**

**PROGRAM DIRECTOR:** Mary W. Stewart, PhD, RN

**PROGRAM DESCRIPTION:** 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-MSN. 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.

**PROGRAM OBJECTIVES:**
- Design, conduct, direct, and disseminate research in nursing and 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.

**ADMISSION REQUIREMENTS:** The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1.

Applicants will be evaluated based on the following:
- BSN and a master’s degree in nursing or closely related field for post-master’s entry; earned BSN or current student in the last year of a nationally-accredited BSN program for post-BSN entry
- Eligible for RN licensure in Mississippi
- Transcripts from all previous colleges and universities attended
- A cumulative GPA of 3.0 or better on a 4.0 scale
  - Post-BSN entry requires a minimum 3.2 (on 4.0 scale) GPA with strong performance in science courses.
- Three letters of recommendation
- A personal statement
- A GRE score ≥300 on the combined verbal and quantitative scores is preferred. Minimum of 3.5 on Analytical Writing component of the GRE.
- Personal interview with one or more PhD faculty

**PROGRAM COMPLETION REQUIREMENTS:** 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. 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.

- **QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY** - The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.
• **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 on 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.

• **Required Coursework** - Students must also pass ID 700 Ethics in Research.

• **Publication Requirement** - 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.

### Post-BSN Entry Plan of Study

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**The University of Mississippi Medical Center**
### YEAR 4 Fall+

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*Electives: Minimum of 6 hours required for degree

ID 718 Health Policy and the Healthcare System
ID 719 Introduction to the Science and Theory of Public Health
ID 725 Environmental Health
ID 701 Introduction to GIS
PHN 780 Special Topics; PHN 715 Survey Design and Analysis
PHN 717 Directed Research

Advanced Research Methods; Advanced Statistics; Anthropology; Basic Science Lab Techniques; Biochemistry; Data Science; Epidemiology; Genomics; Leadership Development; Manuscript Development and Publication; Sociology; Systematic Reviews; or any other doctoral-level course approved by advisor.

**Students must enroll in PHN 701 every semester until they achieve a successful dissertation proposal defense.

### POST-MSN ENTRY

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#### YEAR 3+ - FALL+

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*Electives: Minimum of 6 hours required for degree

ID 718 Health Policy and the Healthcare System
ID 719 Introduction to the Science and Theory of Public Health
ID 725 Environmental Health
ID 701 Introduction to GIS
PHN 780 Special Topics; PHN 715 Survey Design and Analysis
PHN 717 Directed Research
Advanced Research Methods; Advanced Statistics; Anthropology; Basic Science Lab Techniques; Biochemistry; Data Science; Epidemiology; Genomics; Leadership Development; Manuscript Development and Publication; Sociology; Systematic Reviews; or any other doctoral-level course approved by advisor.

**Students must enroll in PHN 701 every semester until they achieve a successful dissertation proposal defense.**

**PATHOLOGY (Program no longer accepting new graduate students)**

**PROGRAM DIRECTOR:** Michael J. Ryan, PhD, Interim Program Director

**PROGRAM DESCRIPTION:** Highly qualified candidates with a bachelor’s, MS, or MD degree may be admitted to the PhD in Pathology degree program. The program begins with course work, followed by a combination of course work and laboratory research and finishes with mentored research performing an independent project in the laboratory of one of the program faculty. Students enrolled in the program will be able to develop a broad base of understanding of general and systemic human pathology that fosters the ability to synthesize emergent information with current knowledge. In addition, students will be able to develop an introductory understanding of the clinical practice of pathology in order to gain an appreciation of how basic science and clinically applied pathology research findings contribute to medical practice and patient care. As experimental pathology is an extremely broad area of investigation, students not only may perform laboratory work under the guidance of current program faculty but also work with the program director to potentially identify faculty in other basic science programs or clinical areas with whom to perform their independent project, depending on the student’s particular area of interest. An important and unique opportunity in the program is the opportunity to perform independent research in the area of laboratory medicine health services focused on patient safety.

**PROGRAM OBJECTIVES:** The objectives for the program are to educate and train individuals to become independent research investigators, teachers and mentors with a broad understanding of the relevant field as well as focused training within a subset of the areas of study. These objectives apply whether the individual’s ultimate career goal is to work in academic, government, industrial or administrative settings.

**ADMISSION REQUIREMENTS:** Program admission is currently suspended.

**PROGRAM COMPLETION REQUIREMENTS:** 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. 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.

- **QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY** - The Qualifying Examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.

- **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 on 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.

- **REQUIRED COURSEWORK** - All students must pass ID 709 (Responsible Conduct in Research). In addition, all graduate students must successfully pass ID 714 (Professional Skills).

- **PUBLICATION REQUIREMENT** - 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.

**PLAN OF STUDY**

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**YEAR 3 – SPRING**

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<td>ID 714</td>
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<td>PATH 700</td>
<td>Pathology Journal Club</td>
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<td>PATH 798</td>
<td>Dissertation and Dissertation Research</td>
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**YEAR 3 - SUMMER+**

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<th>Course</th>
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<td>PATH 798</td>
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<tr>
<td>PATH 700</td>
<td>Pathology Journal Club</td>
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* A minimum of three elective are required to be taken prior to the Qualifying Exam, although more may be taken throughout the plan of study with advisor approval. Suggested electives include ID 721. Molecular Oncology; PATH 748. Problems in Cancer Biology; PATH 743. Pathology Seminar; BIOCH 742. Research Tools in Molecular Biology; BIOCH 744. Cellular Biochemistry; ID 740. Statistical Methods in Research; ANAT 715. Neurobiology; ID 715. Teaching in Higher Education; ID 716. Teaching Practicum; MICRO 761. Medical Immunology.

**Clinical Practice in Laboratory Medicine is a required course that may be taken any time after the student has passed his/her Qualifying Examination. Taking this course prior to the Qualifying Exam requires program director approval prior to registration.**

**PHYSIOLOGY AND BIOPHYSICS PROGRAM**

**PROGRAM DIRECTOR:** Michael J. Ryan, PhD

**PROGRAM DESCRIPTION:** In keeping with the mission of the UMMC, the mission of the Department of Physiology is “to maintain the highest level of productivity and excellence in teaching, and research to the University of Mississippi Medical Center, national, and international scientific communities”. In addition, the faculty play leading roles in national and international service to the American Physiological Society, the American Heart Association (AHA), the AHA Council on Hypertension, NIH, the International Society of Hypertension, and the Inter-American Society of Hypertension.

**PROGRAM OBJECTIVES:** Graduates from the PhD program in Physiology and Biophysics will:

- Be able to understand fundamental integrative mammalian physiology and identify unanswered questions and gaps in knowledge related to physiology and pathophysiology.
- Become highly qualified researchers who will make significant contributions to the discipline of physiology by designing and implementing basic research that addresses questions and knowledge gaps.
- Understand how scientific inquiry through basic physiological research improves, or has the potential to improve, clinical and translational science.
- Have sufficient knowledge base and expertise to educate and train the next generation of integrative physiologists.

**ADMISSION REQUIREMENTS:** The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by June 1. Prospective students who wish to attend the Graduate School Spring Recruitment Day must have applications submitted by December 15. Students wishing to be considered for a graduate stipend for the upcoming fall semester should apply for admission prior to April 1.
Applicants will be evaluated based on the following:

- Baccalaureate degree in a relevant scientific discipline
- Transcripts from all previous colleges and universities attended
- A cumulative GPA of 3.0 or better on a 4.0 scale
- Three letters of recommendation
- A personal statement
- A GRE score >300 on the combined verbal and quantitative scores is preferred.

PROGRAM COMPLETION REQUIREMENTS: 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. 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.

- **QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY** - The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.
- **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 on 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.
- **REQUIRED COURSEWORK** - All students must pass ID 709 (Responsible Conduct in Research). In addition, all graduate students must successfully pass ID 714 (Professional Skills).
- **PUBLICATION REQUIREMENT** - Students receiving the PhD degree are required to have the results of their research accepted for publication prior to the 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.

**PLAN OF STUDY**

**YEAR 1 - FALL**
- CMB 710 Biochemistry 10
- ANAT 713 Histology and Cell Biology 3
- PHYSIO 702 Physiological Concepts 1

**YEAR 1 - SPRING**
- PHYSIO 701 Medical Physiology 12
- ANAT 713 Histology and Cell Biology 3
- ID 709 Responsible Conduct in Research 2
- PHYSIO 702 Physiological Concepts 1

**YEAR 2 - SUMMER**
- PHYSIO 707 Research in Physiology 1

**YEAR 2 - FALL**
- PHYSIO 715 Endocrinology 2
- PHYSIO 717 Circulatory Physiology 7
- PHYSIO 727 Physiological Applications of Molecular Biology 2

**YEAR 2 - SPRING**
- PHYSIO 731 Renal and Body Fluid Physiology 7
- PHYSIO 744 Simulation of Physiological Mechanisms 3
- NSCI 710 Tutorials in Neuroscience 1

**YEAR 3+ - SUMMER**
- PHYSIO 735 Special Topics in Physiology 1

**YEAR 3+ - FALL**
- PHYSIO 798 Dissertation and Dissertation Research 1
- PHYSIO 728 Scientific Communications in Physiology 2
YEAR 3+ - SPRING

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<tr>
<th>Course Code</th>
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<td>Fundamental Pharmacology</td>
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<tr>
<td>PHYSIO 798</td>
<td>Dissertation and Dissertation Research</td>
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<td>PHYSIO 705</td>
<td>Seminar</td>
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**MD/PhD PROGRAM**

**PROGRAM DIRECTOR:** Sean Didion, PhD

**PROGRAM DESCRIPTION:** 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.

**PROGRAM OBJECTIVES:** 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.

**ADMISSION REQUIREMENTS:** Acceptance into the MD/PhD program at UMMC requires prior admission into UMMC medical school. Moreover, in addition to completion of all medical school application materials, applicants 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. Prior to the interview with the SGSHS, the student must complete the SGSHS application for the MD/PhD program.

**PROGRAM COMPLETION REQUIREMENTS:** 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 first and second years in medical school, 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” (ID 704).

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, no later than April 1 of third year of medical school, the MD/PhD student will select an advisor and begin to fulfill specific requirements of that PhD program.

The first through third years in graduate school (G1-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 the fourth year of medical school, 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 two different departments during the summer semesters prior to their first and second years of medical school. The summer prior to their first year of medical school, the student will complete a five-week rotation in two different biomedical science programs. For the summer prior to the second year in medical school, the student may opt to complete the entire 10-week lab rotation in only one program or choose a new one.

- **QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY** - The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.

- **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 on 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.

- **REQUIRED COURSEWORK** - Students must also pass ID 709 (Responsible Conduct in Research). In addition, all graduates must successfully pass ID 714 (Professional Skills).

**COURSES OF INSTRUCTION**

**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 hours)
ANAT 701. Fundamental Micro and Devel Anatomy. A study of the microscopic structure and function of cells, tissues and organs. Traditional Lecture (6 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 hours)

ANAT 711. Gross Anatomy. A study of the human body utilizing dissection. Traditional Lecture (6-12 hours)

ANAT 712. Physiology for Clinical Anatomists. The course involves the study of human physiology with special emphasis on cardiopulmonary, musculoskeletal, nervous, endocrine, and respiratory systems as well as acid base balance. Prerequisite: ANAT 711

ANAT 713. Histology and Cell Biology. A study of the structure and function of cells, tissues and organs. This 6 credit course runs through Fall and Spring Semesters, and students must register for 3 credit hours in each semester to obtain credit. Traditional Lecture (3 hours)

ANAT 715. Neurobiology. A study of the human nervous system Traditional Lecture (4-6 hours)

ANAT 716. Developmental Anatomy. A study of the embryonic development of the human body. Traditional Lecture (2 hours)

ANAT 717. Clinical Anatomy Research Rotations. Research experience with 1-3 members of the Clinical Anatomy faculty. Traditional Lecture (1-9 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 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 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 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 hours)

ANAT 734. Teaching Practicum in Graduate Anatomy. This course is an opportunity for senior students in the PhD program in Clinical Anatomy to obtain experience in teaching in a graduate-school environment. Experience will be obtained in two courses taught in the MS in Biomedical Science Program: ID-767 Fundamental Histology & Cell Biology and ID-768 Essentials of Anatomy. Students in this course will obtain experience and training in lecturing to this audience, and in running laboratory and small-group sessions. Students will also assist in creating and conducting interactive small group sessions using virtual slide technology. Traditional Practicum/Internship (2 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 hours)

ANAT 742. Learning in the Health Sciences. A seminar course intended to introduce students to education and basics of learning theory with particular emphasis on health sciences education. Traditional Lecture (3 hours)

ANAT 743. Pedagogy in the Health Sciences. This course will be an introduction into pedagogical theory and skills. Students will focus on developing their own ideas about teaching, including formulating and working on a teaching philosophy, observing and interviewing current faculty members, and developing a sample lesson plan. Traditional Lecture (3 hours)

ANAT 744. Health Sciences Curriculum Development. A seminar course intended to extend the work done in Skills Development in Clinical Anatomy I, focusing on curricular development of a full course and/or program. Traditional Lecture (3 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 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 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 Traditional Dissertation (1-9 hours)


ANAT 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 hours)

AUD 700. Hearing Sciences 1. Introduction to the physics of sound (i.e. acoustics) and the relationship to physiological response (i.e. psychoacoustics) in normal and compromised hearing. Course provides a basic overview of acoustics (e.g. frequency, magnitude, phase) including speech and music and psychophysics of sound (e.g. pitch, loudness) including masking. Traditional Lecture (3 hours)
AUD 701. Hearing Sciences II. Advanced topics in acoustics and psychoacoustics including signal processing, instrumentation, and calibration. Course builds on HS I by expanding on topics of signal detection and incorporating hands-on techniques to produce, measure, and analyze audio signals. Traditional Lecture (3 hours)

AUD 704. A&P of Hearing & Balance Mechanisms I. A systems overview of the peripheral and central auditory and vestibular pathway anatomy and physiology in normal and impaired populations. Course introduces auditory-vestibular system and hearing theory. Additional overview of head and neck anatomy and physiology and integration with other organ systems is provided. Traditional Lecture (4 hours)

AUD 705. A&P of Hearing & Balance Mechanisms II. Molecular physiology and genetics of the peripheral and central auditory and vestibular pathways in normal and impaired populations. Course introduces basic concepts of biochemistry and genetics of normal and abnormal cellular response and specific application to the auditory-vestibular system. Traditional Lecture (2 hours)

AUD 706. Evaluation of Audiology I. Introduction to the theory and practice of hearing evaluation with emphasis on routine clinical screening and diagnostic audiometric techniques (e.g. case history, otoscopy, pure tone audiometry, speech audiometry, and masking) and their interpretation. Traditional Lecture (2 hours)

AUD 707. Evaluation of Audiology III. Introduction to objective evaluation of peripheral and central hearing function with emphasis on routine clinical and screening techniques. This advanced diagnostics course will integrate material from EA I and II considering case history, integrating audiologic results, and clinical decision-making. This course will expand to include physiologic tests of auditory and related functions including: auditory evoked potentials, electrocochleography, auditory brainstem response testing, and intra-operative monitoring procedures. Traditional Lecture (3 hours)

AUD 708. Evaluation of Audiology III. A study of hearing handicap and its management in adults, including characteristics of hearing aids, hearing aid performance measurements, earmold acoustics, and cerumen management. Emphasis is on the foundations of clinical management. Laboratory exercises will supplement this course. Traditional Lecture (3 hours)

AUD 710. Management of Audiology I. A study of hearing handicap and its management in adults, including characteristics of hearing aids, hearing aid performance measurements, earmold acoustics, and cerumen management. Emphasis is on the foundations of clinical management. Laboratory exercises will supplement this course. Traditional Lecture (3 hours)

AUD 711. Management of Audiology II. This course will provide information and strategies for the habilitation/rehabilitation of individuals with hearing loss, with emphasis on the adult population. Specifically, the student will gain knowledge about the effects of hearing impairment, assessment issues, and habilitation/rehabilitation appropriate strategies. These include non-hearing aid prosthetic intervention (assistive listening devices, cochlear implants), perceptual intervention (speechreading and auditory training), communication management, and counseling technique. Traditional Lecture (3 hours)

AUD 712. Management of Audiology III. A study of the process of hearing aid provision for children and adults, including theoretical bases and practical implementations with contemporary hearing aids. Emphasis is on the principles of evidence-based practice, with applications in recent literature concerning effectiveness of amplification-based approaches to audiological rehabilitation. Laboratory exercises will supplement this course. Traditional Lecture (2 hours)

AUD 713. Management of Audiology IV. This course will provide familiarization on auditory implantable devices for pediatric and adult populations with an emphasis on cochlear implant technology. Candidacy, surgical considerations, signal processing strategies, fitting protocols and rehabilitation will be discussed in detail. Traditional Lecture (2 hours)

AUD 714. Integrative Audiology. Case management approaches for hearing and balance disorders. Students will learn how to effectively incorporate interdisciplinary patient management. Traditional Lecture (3 hours)

AUD 715. Professional Issues in Audiology. A study of healthcare and business models that impact audiology practice, including professional issues, service reimbursement for audiology, updates on billing and coding, licensure, certification, and practice management. Traditional Lecture (2 hours)

AUD 716. Evaluation & Management of Balance I. This course will provide a review of normal vestibular system anatomy and physiology including oculomotor tests. This course will emphasize bedside assessment procedures and administration and interpretations of VNG and clinic assessment procedures used with patients with balance. Traditional Lecture (3 hours)

AUD 717. Evaluation & Management of Balance II. Advanced topics in the evaluation of the balance system. This course will cover administration and interpretations of the advanced clinical assessment procedures (e.g. rotational testing, vestibular evoked myogenic potentials, video head impulse test, and computerized dynamic Posturography). This course will provide emphasis on overall case management from the patient interview to recommendations and report writing. Consideration of special populations, e.g. children will be discussed. Traditional Lecture (3 hours)

AUD 718. Eval. & Mgmt of Central Aud. Deficits. Topics in central auditory processing, tinnitus, sound sensitivity, and cognition. This course will consider central auditory deficits, approaches for evaluation, and management considerations. Traditional Lecture (3 hours)

AUD 730. Special Population: Peds & Ed Audiology. This advanced course will explore the detection, assessment and management of hearing loss in infants and children. Content will include behavioral test methods such as visual reinforcement audiometry and conditioned play audiometry as well as objective test methods such as otoacoustic emissions, tympanometry, and auditory brainstem response testing as applied to pediatric populations. This course will also include an overview of the application of these test results to the management of children with hearing loss with hearing aids and implantable devices in educational academic settings. Special considerations such as FM systems, assistive devices, classroom accommodations, and coordinate of services will be discussed. Traditional Lecture (3 hours)

AUD 731. Deaf Ed & American Sign Language. The target audience for this course will be audiology students or other professionals, who serve patients whose primary mode of communication is American Sign Language. This course will provide an introduction to Deaf culture and conversational American Sign Language. Students will learn basic grammar and structure of ASL, including skills building in fingerspelling and numbers. Traditional Lecture (2 hours)

AUD 732. Telehealth in Audiology & Rural Pop. Introduction to the theory and practice of hearing evaluation and management and their interpretation using telehealth approaches. Traditional Lecture (2 hours)
AUD 733. Hearing Conversation. The effects of noise and chemical will be discussed with emphasis on occupational regulation and hearing conservation program components. Noise measurements and legal implications will be discussed. Hearing conservation in special groups will be included (e.g. musicians). Fitting and verification of hearing protection devices will be included. Students will receive CAOHC certification at the end of the course. Traditional Lecture (3 hours)

AUD 742. Summer Practicum. Clinical practicum to achieve required hours in areas of audiological and vestibular evaluation and management. This course includes attendance at weekly case conferences where clinical case studies will be presented. Traditional Lecture (3 hours)

AUD 750. Clinical Practicum & Conference I. Clinical practicum to achieve required hours in areas of audiological and vestibular evaluation and management. This course includes attendance at weekly case conferences where clinical case studies will be presented. Traditional Practicum/Internship (2 hours)

AUD 751. Clinical Practicum & Conference II. Clinical practicum to achieve required hours in areas of audiological and vestibular evaluation and management. This course includes attendance at weekly case conferences where clinical case studies will be presented. Traditional Practicum/Internship (2 hours)

AUD 752. Clinical Practicum & Conference III. Clinical practicum to achieve required hours in areas of audiological and vestibular evaluation and management. This course includes attendance at weekly case conferences where clinical case studies will be presented. Traditional Practicum/Internship (2 hours)

AUD 753. Clinical Practicum & Conference IV. Clinical practicum to achieve required hours in areas of audiological and vestibular evaluation and management. This course includes attendance at weekly case conferences where clinical case studies will be presented. Traditional Practicum/Internship (2 hours)

AUD 754. Clinical Practicum & Conference V. Clinical practicum to achieve required hours in areas of audiological and vestibular evaluation and management. This course includes attendance at weekly case conferences where clinical case studies will be presented. Traditional Practicum/Internship (3 hours)

AUD 755. Clinical Practicum & Conference VI. Clinical practicum to achieve required hours in areas of audiological and vestibular evaluation and management. This course includes attendance at weekly case conferences where clinical case studies will be presented. Traditional Practicum/Internship (3 hours)

BMS 700. Biomedical Sciences Journal Club. A review of significant findings in pathology through discussion of the current peer-reviewed literature spanning general and systems pathology, as well as the medical practice of anatomic and clinical pathology. Review of current literature, discussion, and oral presentation. Traditional Lecture (1 hour)

BMS 701A. Fundamentals of Materials Science A. An introduction to 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. (3 Semester hours Fall) Traditional Lecture (3 hours)

BMS 701B. Fundamentals of Materials Science B. This course is a continuation of topics covered in BMS 701A. An introduction to 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, BMS 708, or consent of instructor. Traditional Lecture (3 hours)

BMS 702A. Fundamentals of Biomaterials A. This 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: Consent of Instructor. Traditional Lecture (3 hours)

BMS 702B. Fundamentals of Biomaterials B. This course is a continuation of topics covered in BMS 702A. This 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 hours)

BMS 703. Experimental Methods in Materials Science. An introduction to the variety of equipment used to evaluate the structure and properties of materials and tissue response to biomaterials. SEM techniques, EDS, EBSD & WDS, mechanical testing equipment, thermal analysis equipment, light microscopy, histological specimen preparation, and aqueous corrosion measurement will be covered. The course will include one lecture and one three-hour laboratory per week. Traditional Lecture (2 hours)

BMS 703A. Experimental Methods in Mat. Sci. 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/Lab (1 hour)

BMS 703B. Experimental Methods in Mat. Sci. B. This course is a continuation of topics covered in BMS 703A. 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. Prerequisite: BMS 703A or consent of instructor. Traditional Lecture/Lab (1 hour)

BMS 704. Crystallography and X-Ray Diffraction. Principles of crystallography, including point groups, space groups, stereographic projections and reciprocal lattice. 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 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 hours)

BMS 708. Mathematics for Materials Study. This introduction 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 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 polymercrystallization, and thermal and optical behavior of polymers. Prerequisite: BMS 701A/B or consent of instructor. Traditional Lecture (3 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 701 A/B or consent of instructor. Traditional Lecture (3 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 or consent of instructor. Traditional Lecture (3 hours)

BMS 713. Introduction to Electron Microscopy. A study of the principles and application of knowledge in electron microscopy. 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 integrate Traditional Lecture (3 hours)

BMS 718. Statistics for Materials Study. This graduate level course is for students who already have a firm foundation of the mathematics used in engineering and who may or may not have an engineering background. This course provides the foundation of statistical design and analysis needed to work efficiently as a biomaterials researcher. This course covers the following topics: descriptive statistics, rules of probability, types of research variable, statistical distributions, sampling methods, estimation and confidence intervals, hypothesis testing, experimental design, hierarchy of evidence-based medicine, regression analysis, accelerated lifetime testing, Monte Carlo simulation, screening of experimental factors, design optimization, quality assurance methods, and materials selection using Ashby charts. (3 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 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 hours)

BMS 723. Degradation Mechanisms in Materials. 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 hours)
BMS 724. Electrochem & Corrosion of Implant Mat. 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 hours)

BMS 725. Environmentally Asssted Fract of Implant Mat. A study of one of the principal failure mechanisms of metallic implants - 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 hours)

BMS 727. Surface Science. A study of 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 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 hours)

BMS 730. Grant Writing and Management. 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 timelines, 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 hours)

BMS 737. Research in Biomedical Sciences. This course is to acquaint students with ongoing research programs and research methodologies in the Biomedical Sciences so they can choose appropriate mentor for their dissertation mentor and/or begin their training under the guidance of a chosen mentor. Only students enrolled in the Ph.D. in Biomedical Sciences degree program are allowed to enroll in this course prior to them earning the Ph.D. candidacy status. Traditional Laboratory (1-9 hours)

BMS 740. Advanced Gene Therapy- Image Guidance. The course is designed to learn the science of gene therapy beyond the basics. This course is designed for students interested in pursuing a career with the focus of integrating gene therapy with radiologic science. We urge to continue exploring gene therapy uses in translational research, its important trends in medical research, and the current advances in gene therapy in radiology. Gene Therapy is a promising field in the battle against cancer, genetic disorders, and many other diseases. There are a growing number of successful trials in the field; however, much work is needed to make for more safe and effective uses of this treatment approach. Traditional Lecture (3-6 hours)

BMS 742. Introduction to Gene Therapy Techniques. Introduction to Gene Therapy Techniques is a course designed to learn the science of gene therapy, its uses in translational research, its important trends in medical research, and the current advances in gene therapy. Gene therapy is a promising field in the battle against cancer, genetic disorders, and many other diseases. There are a growing number of successful trials in the field; however, much work is needed to make for more safe and effective uses of this treatment approach. Traditional Lecture (3 hours)

BMS 743. Medical Imaging Physics. A practical introduction to key physical principles as applied to medical imaging and radiation therapy. Topics covered will include: imaging metrics, ionizing radiation and radiation safety, radioactivity, radiation therapy, computed tomography, nuclear medicine, ultrasound, and magnetic resonance imaging. Traditional Lecture (3-6 hours)

BMS 744. Teaching Medical Professionals. A practical course to introduce and hone communicating and teaching skills to the student. The student will gain valuable interactions with various medical departments to further understand radiology’s role in different departments. Presentation topics will include: Chest x-rays, trauma scans, emergency CT interpretations, ionizing radiation and radiation safety, radiation therapy, musculoskeletal and magnetic resonance imaging. Traditional Lecture (1-6 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 hours)

BMS 797. Research Proposal in Biomedical Sciences. An advanced course in which doctoral students prepare and defend a research grant proposal concerning the topic of their dissertation research. Traditional Laboratory (1-9 hours)

BMS 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 hours)


CMB 701. Basic Biochemistry in Healthcare. Introductory 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. Traditional Lecture (3 hours)

CMB 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 (6 hours)
CMB 705. Biochemistry I: Biochem & Mol Biology. A fundamental study in biochemistry that covers the chemistry, biosynthesis, and utilization of amino acids, proteins, nucleic acids, carbohydrates, and lipids. Other basic biochemical topics will be protein structure, membrane structure and function, cell organization and function, and cellular tissues structures and function. Students will also develop problem solving and analytical skills that are more generally applicable to the life sciences. Online, Internet, or Web-based Lecture (4 hours)

CMB 706. Biochemistry II: Enzymology & Metabolism. A continuation of Biochemistry I. Topics include thermodynamics, pH and acid-base chemistry, metabolism and metabolic regulation including glycolysis, TCA cycle, and oxidative phosphorylation. Tissue-specific metabolism studies will include liver metabolism, muscle metabolism, hormonal action and blood clotting. Students will also explore how alteration of these metabolic pathways relates to the development and progression of some human diseases. Online, Internet, or Web-based Lecture (4 hours)

CMB 707. Biochemistry III: Forensic Biotechnology. The project-based course will include studies in DNA fingerprinting, PCR, CRISPR, bioinformatics, and western blot techniques; all important biotechnology techniques used currently in forensic sciences. The course is designed to give students a fundamental understanding of techniques covered as well as working knowledge through the use of some virtual labs. Students will also learn how these techniques can be applied towards new challenges in the biotechnology industry. Projects will include integrating knowledge and skills in the examination, analysis, interpretation and reporting of evidence. Students will also develop problem solving and analytical skills that are more generally applicable to the life sciences. Further, students will develop writing and presentation skills necessary for the biotechnology work force. Traditional Lecture (3 hours)

CMB 708. Biochemistry IV: Gen, Develop, & Disease. A continuation of Biochemistry I. Topics include thermodynamics, pH and acid-base chemistry, metabolism and metabolic regulation including glycolysis, TCA cycle, and oxidative phosphorylation. Tissue-specific metabolism studies will include liver metabolism, muscle metabolism, hormonal action and blood clotting. Students will also explore how alteration of these metabolic pathways relates to the development and progression of some human diseases. These projects will include the examination of regulations and ethics surrounding treatment and prevention of genetic diseases. Further, students will develop research, writing, and presentation skills necessary for the work force. Online, Internet, or Web-based Lecture (3 hours)

CMB 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 hours)


CMB 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 hours)

CMB 720. Seminar. A course in which the student prepares and presents a research seminar on a topic of contemporary interest. Traditional Lecture (1-4 hours)

CMB 730. Special Topics. Treatment of specific subjects not dealt with fully in other courses. Traditional Lecture (1-9 hours)

CMB 731. Special Topics II. Treatment of specific subjects not dealt with fully in other courses. Traditional Lecture (1-15 hours)

CMB 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 Laboratory (2 hours)

CMB 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 hours)

CMB 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 hours)

CMB 743. Cellular Biochemistry I. A laboratory course having the objective of introducing the student to various basic procedures and techniques which are tools of biochemical research. Traditional Laboratory (1-9 hours)

CMB 760. Biochemistry Research. Thesis research project under supervision of Thesis Advisor Traditional Laboratory (1-9 hours)

CMB 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 hours)


ID 630. Health Care Quality Improvement. This course equips health professions students (medicine, nursing, health administration) with the abilities 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 hours)

ID 700. Ethics in Research. This 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. Synchronous and asynchronous instruction. Traditional Lecture (2 hours)

ID 701. Introduction to Geographic Information Systems. 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 (3-4 hours)
ID 704. An Introduction to Animal Research. The use of animals as research tools, including characteristics of commonly used species, anesthesia and surgical techniques. Traditional Lecture (2 hours)

ID 705. History of Medicine from Antiquity-1700. This course introduces the student to the history of medicine in Europe from Greco-Egyptian antiquity to the association of post-mortem pathology with disease and the clinical movement of early 19th century Paris. Beginning with the earliest professionalization of healing, we will follow developments in the perception of health and disease, the elaboration of medical theory, the rise of university medicine and the professionalization of the M.D., social responses to disease and unusual mortalities, and the beginnings of public attempts to deal with the sick and contain epidemics. Students will study not only what medical historians believe actually happened in the past, but also how contemporaries understood health and disease. Traditional Lecture (2 hours)

ID 706. History of Medicine From 1700 to 2000. This course is the second quarter of the introductory survey of the social and intellectual history of medicine. Traditional Lecture (2 hours)


ID 708. Topics in the History of Medicine. Topics vary. Emphasis on mid-18th century to the present. Traditional Lecture (2 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 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 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 recourses 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 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, grantmanship, career choices, laboratory management, and academic teaching skills. Traditional Lecture (3 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 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 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 hours)

ID 718. Health Policy and the Healthcare System. 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. Synchronous and asynchronous instruction. Traditional Lecture (3 hours)

ID 719. Introduction to the Science and Theory o. An interdisciplinary graduate-level course that addresses population-based approaches to community health improvement. Using problem-based learning, the course covers predominant theories to describe, explain, or predict human behavior to address the social and behavioral determinants of health and promote behavior change at the population level. Case studies for analysis are contemporary public health issues. Opportunities include working with a public health mentor and exposure to current efforts of local, state, and national figures. Synchronous and asynchronous instruction. Traditional Lecture (3 hours)

ID 720. 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 timelines, 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 (1 hour)

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 hours)

ID 725. Environmental Health. This course offers a general introduction to environmental health from 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 hours)

ID 727. Prof Develop for Biomedical Careers. This course will expose 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. Lecture and seminar presentations by students and medical center faculty. Traditional Lecture (1 hour)
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 (1-6 hours)

ID 740. Statistical Methods in Research I. 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 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 hours)

ID 759. Geo Info Sys in Healthcare & Epidemiology. 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 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 hours)

ID 768. Essential Anatomy. An introduction to human anatomy taught through lectures, classroom activities and the study of cadaveric specimens. Traditional Lecture/Lab (3 hours)

ID 770. Evidenced Based Clinical Research I. General introduction to descriptive and inferential statistical methods designed for students in the biomedical health science. The course will cover the basic statistical procedures including one sample t-test, two independent samples t-test, paired t-test, correlation and regression methods. Little exposure to experimental designs and their application in the medical field will be addressed as well. Methods of reliability and validity of screening tests will be discussed in this course. The students will be exposed to SPSS statistical software to learn how to analyze and interpret the results. Emphasis will be given to the applied nature of the course. Examples will be given to evaluate the quality of the clinical literature based on what the student learned in this course. Traditional Lecture (2-3 hours)

ID 777A. Biomedical Sciences-Thesis Proposal. This course is designed to instruct students in the writing of a MS Thesis. It will involve development of a research proposal phase in which the student maps out a research plan, and, presents it to his/her committee. The proposal forms the theoretical basis for the research phase of the MS degree program. Traditional Thesis (3 hours)

ID 777B. Biomedical Sciences Thesis. This course is designed to instruct students in the writing of a MS Thesis. It will involve the writing of a masters thesis in which the student describes and discusses the research performed in the course of their graduate studies. Traditional Thesis (3 hours)

MFM 606. Antenatal Diagnos-Fetal Ther & Sem MFM I. 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 M.D. 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. Traditional Lecture (3 hours)

MFM 607. Antenatal Diagno-Fetal Ther & Sem MFM II. 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. Traditional Lecture (3 hours)

MFM 608. Antenatal Diagn-Fetal Ther & Sem MFM III. 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. Traditional Lecture (3 hours)

MFM 609. Antenatal Diagno-Fetal Ther & Sem MFM IV. 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). Traditional Lecture (5 hours)

MFM 610. Thesis Work & Seminar in Mat Fet Med V. 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 Traditional Thesis (1-9 hours)

MFM 611. Thesis Work & Seminar in Mat-Fetal Med V. 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. Traditional Thesis (1-9 hours)

MFM 612. Mfm Research Methods & Projects II. This is a continuation of MFM611 which is a prerequisite with enrollment likewise limited to fellow enrolled in the maternal-fetal medicine training program. Traditional Lecture (3 hours)

MFM 613. Mfm Research Methods & Projects III. Closely directed supervision of research projects that is limited to OB/GYN fellows enrolled in the maternal-fetal medicine fellowship program. Traditional Lecture (3 hours)

MFM 700. Clinical & Basic Research Methods & Prjc. Traditional Laboratory (3 hours)
MFM 710. Fundamental Research Tools Methods. A course designed to introduce Maternal Fetal Medicine fellows to contemporary methods in Molecular biology research. Traditional Laboratory (3 hours)

MFM 717. Medical Genetics. Traditional Lecture (3 hours)


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 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 hours)

MICRO 703. Seminar in Microbiology & Immunology. Graduate students will prepare, present and attend weekly seminars. Traditional Lecture (1-9 hours)

MICRO 704. Research in Microbiology & Immunology. Students participate in an on-going research project under the direction of a graduate faculty member. Traditional Laboratory (1-9 hours)

MICRO 707. Microbiology & Immunology Lab Rotation. This course is designed to acquaint the student with ongoing research and research methodologies within the department. Participation in this course is not required, but students are encouraged to participate. Traditional Lecture (1-9 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 hours)

MICRO 715. Microbiology & Immunology Special Topics. 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 hours)

MICRO 725. Bacterial Structure and Function. A study of bacterial physiology, anatomy and regulatory mechanisms. Traditional Lecture (3 hours)

MICRO 733. Exp. Immunochemistry & 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 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 hours)

MICRO 735. Advanced Virology. An advanced course in which students study, discuss and critically review new research findings, concepts and laboratory techniques in the areas of viral biochemistry, molecular biology, tumor virology and medical virology. Prerequisites: MICRO 701, BIOCH 710 and MICRO 702. Traditional Lecture (1-3 hours)

MICRO 741. Fundamental Microbiology & Immunology. 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 general medicine is discussed. NOTE: This course is not offered to microbiology and immunology graduate students. Traditional Lecture (6 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 hours)

MICRO 750. Proposal in Microbiology & Immunology. An advanced course in which doctoral students prepare and defend a research grant proposal focused on their dissertation research. Traditional Lecture (1-3 hours)

MICRO 760. Medical Virology. This course is a section of the larger MEDICAL MICROBIOLOGY course (MICRO 701). Students OUTSIDE THE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY interested in virology may register for this course after contacting the course director. Traditional Lecture (3 hours)

MICRO 761. Medical Immunology. This course is a section of the larger MEDICAL MICROBIOLOGY course (MICRO 701). Students OUTSIDE THE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY interested in Immunology may register for this course after contacting the course director. Traditional Lecture (3 hours)

MICRO 762. Medical Bacteriology. This course is a section of the larger MEDICAL MICROBIOLOGY course (MICRO 701). Students OUTSIDE THE DEPARTMENT OF MICROBIOLOGY AND IMMUNOLOGY interested in bacteriology may register for this course after contacting the course director. Traditional Lecture (6 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 AND IMMUNOLOGY interested in parasitology/mycology may register for this course after contacting the course director. Traditional Lecture (1 hour)

MICRO 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 hours)


MSCI 710. Epidemiology I. This course will introduce principles and methods of epidemiologic investigation. 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. Traditional Lecture (3 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. Course prerequisites: MSCI 710, ID 740. Traditional Lecture (3 hours)
MSCI 713. GIS in Healthcare and Epidemiology. This course combines an overview of the general principles of geographic information systems and analytical use of spatial information technology applicable in the areas of healthcare and epidemiology. Traditional Lecture (3 hours)

MSCI 720. Bench to Curbside: Principles of Collaboration. The course is designed to provide a thorough grounding in concepts and practices of collaborative research. The translational research team includes basic scientists, clinicians, and population scientists. Effective interactions are not intuitive, as the communication methodologies between various disciplines are typically distinct. Therefore, this course will present the perspectives of the fundamental research programs to show how translational sciences bridges them in a most effective fashion. Traditional Lecture (3 hours)

MSCI 721. Biomarkers, Bioimaging, and Bioinformatics. A survey course that provides the theoretical background for developing, validating and utilizing biomarkers and bioimaging techniques. Prerequisites: ID 740B. Traditional Lecture (3 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. Prerequisites: ID 740B. Traditional Lecture (3 hours)

MSCI 730. Perspectives in Multidisciplinary Clinic. 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. Traditional Lecture (1 hour)

MSCI 731. Fundamentals of Population Health. This course will provide students with training in the language, theories, concepts, methods, measurement, analysis, and implementation of population health. Traditional Lecture (3 hours)

MSCI 732. Clinical Trial Applications. This course is an overview of all components necessary to develop and implement a clinical trial. Prerequisites: ID 740B, ID 741, MSCI 722, ID 709. Traditional Lecture (3 hours)

MSCI 733. Social and Behavioral Sciences Theories. The content and materials in this course provides a structured overview of social and behavioral science theories and their applications relevant to population and public health research and practice. The course is designed to introduced the concepts fundamental to the understanding of multi-level factors that influence human health behaviors. Traditional Lecture (3 hours)

MSCI 740. Drug Device and Development. This course will explain the regulatory processes for drug and device development. Traditional Lecture (1 hour)

MSCI 741. Mechanics of Ethical and Regulatory Issues. 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. Traditional Lecture (1 hour)

MSCI 742. Introduction to Comparative Effectiveness. This course will provide the basic framework to learn about comparative effectiveness research and will include discussion on both clinical and health policy outcomes. Traditional Lecture (1 hour)

MSCI 743. Grant and Scientific Writing. An introduction to scientific writing. Traditional Lecture (1 hour)


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) Neuroanatomy and Cellular Neurobiology; 2) Molecular/ Structural Biology of Ion Channels, Electrophysiology, Neural Potentials; 3) The Synapse; 4) Motor Systems; 5) Sensory Systems; 6) Developmental Neurobiology; 7) Regulatory Systems; 8) Neural Networks and Connectomics; 9) Neuropharmacology; 10) Neurobiology of Brain Disorders. The course also presents "technic al lectures" that cover techniques/procedures, when and why they are used, assumptions made in the techniques, and final analyses made possible by the techniques. The course includes both didactic and primary literature-- based content, and is the first required course in the Program in Neuroscience. Traditional Lecture/Lab (6-7 hours)

NSCI 708. Special Topics in Neuroscience. 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 (1-9 hours)

NSCI 710. Tutorials in Neuroscience. Tutorials cover specialized topics in neuroscience in depth, in a small group setting. Courses consist of intense, directed reading and discussion and is intended to provide students with the opportunity to study specialized topics in neuroscience with faculty experts in that area. The objective for this course in this academic year is to study experimental design, scientific rigor, and use of biostatistical methods in neuroscience. Traditional Lecture (1-9 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 hour)

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 hours)

NSCI 721 B. Scientific Writing in Neuroscience B. 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 (3 hours).
NSCI 790. Neuroscience Laboratory Survey. A survey of up to six active research laboratories in the Program in Neuroscience. The goal of these rotations is to expose the students to the breadth of research occurring in the Program in Neuroscience. Additionally, exposure to the approaches and culture of multiple laboratories allows for the student to make an informed choice when selecting a dissertation mentor and advisory committee members. Traditional Lecture (3 hours)

NSCI 791. Senior Laboratory Rotations. These are intensive laboratory rotations intended for students to begin research in their planned dissertation laboratories. Thus, all three rotations can be within the same laboratory. However, rotations may also be conducted in up to three different laboratories, depending on the student's training needs and interests. Traditional Laboratory (6-9 hours)

NSCI 798. Dissertation Research in Neuroscience. Traditional - EL Dissertation (1-9 hours)

PATH 700. Pathology Journal Club. A review of significant findings in pathology through discussion of the current peer-reviewed literature spanning general and systems pathology, as well as the medical practice of anatomic and clinical pathology. Review of current literature, discussion, and oral presentation. Traditional Lecture (1 hour)

PATH 721. General Pathology. Concepts of disease. This course extends over 2 semesters. The entire course must be completed to receive credit. Traditional Lecture (8 hours)

PATH 724. Autopsy Pathology. Techniques, interpretation and clinical correlation under close supervision of staff. Prerequisite: 721 Traditional Lecture (1-15 hours)

PATH 725. Surgical Pathology. Frozen section diagnosis, description of gross specimens, and interpretation of microscopic sections. Prerequisite: 721. Traditional Lecture (1-15 hours)

PATH 726. Cytopathology. Preparation of specimens, interpretation of smears, and attendance at cytology conferences and lectures. Prerequisite: 721. Traditional Lecture (1-15 hours)

PATH 731. Research in Pathology. Laboratory rotations and pre-dissertation research. Research activities performed under faculty guidance. Traditional Lecture (1-9 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 hours)

PATH 741. Immunohematology. Blood group antigens and antibodies; their role in hemolytic disease and transfusion incompatibility reactions. Traditional Lecture (1-15 hours)

PATH 743. Pathology Seminar. Current research topics in experimental pathology. Traditional Lecture (1-15 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 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. Traditional Clinical Rotation (3-15 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 hours)

PATH 798. Dissertation and Dissertation Research. Traditional Dissertation (1-9 hours)

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 hours)

PHARM 702. Recent Advance-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 hours)

PHARM 703. Orientation to Pharmacological Research. This course will introduce students to principles of laboratory research and good laboratory practice. The student will participate in discussions with each graduate faculty in the department concerning current research interests and ongoing research projects. Traditional Lecture (2 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 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 hours)

PHARM 724. Experimental Design and Methods. This is an overview of current methods in pharmacological research critical to the understanding of the literature and current research. Traditional Lecture (3 hours)

PHARM 726. Fundamantal 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 hours)

PHARM 780. CNS Pharmacology. Drug actions at neuronal targets, the blood-brain barrier and special pharmacokinetics of centrally acting drugs, and the pharmacotherapy of the CNS and neurological disorders are among the topics covered. Traditional Lecture (3 hours)
PHARM 781. Molecular Toxicology. This is a reading and discussion-based class. The molecular mechanisms of several toxicant classes is covered. Emphasis is placed on the effects of xenobiotics on cellular processes, including biochemical reactions and signaling pathways. Traditional Lecture (2 hours)

PHARM 782. Drug Abuse. This course describes drugs that are abused, biological aspects of abuse, patterns of abuse, and theories of drug tolerance and dependence. Traditional Lecture (2 hours)

PHARM 784. Circulatory Pharmacology. This course involves a study of normal circulatory mechanisms and functions and how various drugs and toxic substances modify them. Traditional Lecture (2 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 hours)

PHARM 786. Pharmacology of Synaptic Transmission. The course focuses on the mechanisms of synaptic transmission in autonomic ganglia and at peripheral neuroeffector junctions. Emphasis is placed on the pre- and post-synaptic processes regulating neurotransmitter at these peripheral synapses. The roles of synaptic proteins, and classical and non-classical transmitters are explored in detail. As time permits, clinical examples of the effects of failures in peripheral synaptic transmission are presented. Traditional Lecture (2 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 hours)

PHARM 791. Scientific Communication in Pharmacology. An introduction to scientific writing that includes preparation of abstracts for scientific meetings, presentations at meetings, and a grant proposal for extramural funding in the NIH style. The goal for the latter is to prepare students to write and submit a predoctoral fellowship application to the NIH or a private foundation. Traditional Lecture (3 hours)

PHARM 792. Research in Pharmacology and Toxicology. Students perform research in the laboratory of a faculty member. Students are required 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 hours)

PHARM 798. Dissertation and Dissertation Research. Design and performance of research leading to a Ph.D. Traditional Lecture (1-9 hours)


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 (1-9 hours)

PHN 701-1. Seminar (Journal Club). Traditional Lecture (1-9 hours)

PHN 701-2. Seminar (Journal Club). Traditional Lecture (1-9 hours)

PHN 701-3. Seminar (Journal Club). Traditional Lecture (1-9 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 hours)

PHN 705. Writing Proposals. Prepares students 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 hours)

PHN 707. Phenomena in Nursing Research. 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 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 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 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 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 hours)

PHN 712. Writing for Funding. Examines the essential components of a funding/grant proposal and identifies sources of funding. Graduate student will identify potential private or government funding sources appropriate for their research interests. Traditional Lecture (2 hours)

PHN 713. Laboratory Methods. Focuses on methods of data collection and analysis in the biological/physiological lab setting. Traditional Lecture (3 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 hours)

PHN 715. Survey Design and Analysis. This course is designed to prepare students with the skills to conduct survey research and analyze survey data. It includes sampling design, post-survey data processing, and complex survey data analysis using SPSS Complex Samples. The course will be taught along with in-class labs using ongoing surveys as the case studies. It is assumed that students have taken Biostatistics I and have basic skills of using SPSS. Traditional Lecture (2 hours)

PHN 716. Basic Science Laboratory Techniques. This survey course allows students to have hands-on experience with a variety of laboratory techniques. Objective, quantitative measures applicable to nursing research will be explored. Traditional Laboratory (2 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 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 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 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 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 hours)

PHN 780. Special Topics. Elective course to provide the student with additional study to support research topic development. Traditional Lecture (1-4 hours)

PHN 780-1. Special Topics 1. Traditional Lecture (1-4 hours)

PHN 780-2. Special Topics 2. Traditional Lecture (1-4 hours)

PHN 780-3. Special Topics 3. Traditional Lecture (1-4 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 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 hours)

PHYSIO 701. Medical Physiology. A course providing an in depth study of the functions of the body with special emphasis on the 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 EL Lecture (12 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 hours)

PHYSIO 704. Molecular Physiology. A course designed to teach how state of the art approaches in molecular biology can be applied to cardiovascular and renal physiology. This course is structured as a laboratory format with some reading and lecture. Traditional Lecture/Lab (2 hours)

PHYSIO 705. Seminar. Graduate students will prepare, present and attend weekly seminars. Traditional Lecture (1-9 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 hours)

PHYSIO 715. Endocrinology. A course covering the historical, biochemical and physiological aspects of the endocrine system Tradtional Lecture (2 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 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 Lecture (7 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 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 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 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 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 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 hours)


PPP 790. Special Topics. This course provides a forum for review of graduate-level study skills, time-management, and interpersonal academic interactions for students in the Professional Portal Program who are interested in progressing to professional training in medicine or dentistry. Group discussions, individual guidance and presentations from expert guest lecturers are featured elements of this course. Traditional - EL Independent Study (1-9 hours)
school of nursing

The University of Mississippi Medical Center
### 2020-2021 Academic Calendar

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>April</td>
<td>13</td>
<td>Monday</td>
<td>Registration begins for 2020-2021 summer term</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Friday</td>
<td>Last day to submit an application for August 2020 degree</td>
</tr>
<tr>
<td>May</td>
<td>7</td>
<td>Thursday</td>
<td>2020 SON Honors Day</td>
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<tr>
<td></td>
<td>12</td>
<td>Tuesday</td>
<td>$50 late registration fee for 2020-2021 summer term effective today</td>
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<tr>
<td></td>
<td>21</td>
<td>Thursday</td>
<td>2020 Traditional BSN Pinning ceremony</td>
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<tr>
<td></td>
<td>22</td>
<td>Friday</td>
<td>2020 Commencement</td>
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<tr>
<td><strong>SUMMER TERM</strong></td>
<td></td>
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<tr>
<td>May</td>
<td>18</td>
<td>Monday</td>
<td>Orientation and registration for new RN to BSN, RN to MSN, MSN and PMN students</td>
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<tr>
<td></td>
<td>19</td>
<td>Tuesday</td>
<td>Orientation and registration for new Traditional BSN students</td>
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<td></td>
<td>20</td>
<td>Wednesday</td>
<td>Day Two Orientation and registration for new Traditional BSN students</td>
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<tr>
<td></td>
<td>25</td>
<td>Monday</td>
<td>Memorial Day holiday observed</td>
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<tr>
<td></td>
<td>26</td>
<td>Tuesday</td>
<td>First day of summer term</td>
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<tr>
<td></td>
<td>26</td>
<td>Tuesday</td>
<td>$100 late registration fee for 2020-2021 summer term effective today</td>
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<tr>
<td>June</td>
<td>5</td>
<td>Friday</td>
<td>Last day to register or to add a course</td>
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<tr>
<td></td>
<td>8</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>
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<tr>
<td></td>
<td>24</td>
<td>Wednesday</td>
<td>Registration begins for 2020-2021 fall semester</td>
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<tr>
<td>July</td>
<td>3</td>
<td>Friday</td>
<td>Independence Day holiday observed</td>
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<tr>
<td></td>
<td>6</td>
<td>Monday</td>
<td>Last day to withdraw from a course and receive only a W grade if failing</td>
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<tr>
<td></td>
<td>24</td>
<td>Friday</td>
<td>2020 Oxford Accelerated BSN Pinning ceremony</td>
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<td></td>
<td>27</td>
<td>Monday</td>
<td>$50 late registration fee for 2020-2021 fall semester effective today</td>
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<tr>
<td></td>
<td>31</td>
<td>Friday</td>
<td>Last day of summer term</td>
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<tr>
<td><strong>FALL SEMESTER</strong></td>
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<tr>
<td>August</td>
<td>4</td>
<td>Tuesday</td>
<td>Orientation and registration for Accelerated BSN students (Oxford campus)</td>
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<tr>
<td></td>
<td>5</td>
<td>Wednesday</td>
<td>Orientation for PhD students</td>
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<td></td>
<td>5</td>
<td>Wednesday</td>
<td>Orientation and registration for RN to BSN students</td>
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<td></td>
<td>5</td>
<td>Wednesday</td>
<td>Deadline for completion of General Orientation</td>
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<tr>
<td></td>
<td>6</td>
<td>Thursday</td>
<td>Orientation and registration for new MSN, PMN, and DNP students</td>
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<td></td>
<td>10</td>
<td>Monday</td>
<td>First day of fall semester</td>
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<td>10</td>
<td>Monday</td>
<td>$100 late registration fee for 2020-2021 fall semester effective today</td>
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<tr>
<td></td>
<td>14</td>
<td>Friday</td>
<td>Last day to register for fall semester</td>
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<td>21</td>
<td>Friday</td>
<td>Last day to add a course</td>
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<td>21</td>
<td>Friday</td>
<td>Last day to submit an application for December 2020 degree</td>
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<td></td>
<td>27</td>
<td>Thursday</td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
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<tr>
<td>September</td>
<td>7</td>
<td>Monday</td>
<td>Labor Day holiday observed</td>
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<td></td>
<td>8</td>
<td>Tuesday</td>
<td>Classes resume</td>
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<tr>
<td>October</td>
<td>16</td>
<td>Friday</td>
<td>Last day to withdraw from a course and receive a W grade if failing</td>
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<tr>
<td>November</td>
<td>2</td>
<td>Monday</td>
<td>Registration begins for 2020-2021 spring semester</td>
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<td></td>
<td>23-27</td>
<td>Monday-Friday</td>
<td>Fall break</td>
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<td></td>
<td>30</td>
<td>Monday</td>
<td>Classes resume</td>
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<tr>
<td>December</td>
<td>11</td>
<td>Friday</td>
<td>2020 Jackson Accelerated BSN Pinning ceremony</td>
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<tr>
<td></td>
<td>19</td>
<td>Saturday</td>
<td>End of fall semester</td>
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<tr>
<td></td>
<td>28</td>
<td>Monday</td>
<td>$50 late registration fee for 2020-2021 spring semester effective today</td>
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</table>
# 2020-2021 Academic Calendar

## SPRING SEMESTER

<table>
<thead>
<tr>
<th>January</th>
<th>5</th>
<th>Tuesday</th>
<th>Orientation and registration for new Jackson Accelerated BSN, MSN and PMN students</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>6</td>
<td>Wednesday</td>
<td>Day Two Orientation and registration for new Jackson Accelerated BSN students</td>
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<tr>
<td></td>
<td>6</td>
<td>Wednesday</td>
<td>Orientation and registration for new RN to BSN students</td>
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<tr>
<td></td>
<td>11</td>
<td>Monday</td>
<td>First day of spring semester</td>
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<td></td>
<td>11</td>
<td>Monday</td>
<td>$100 late registration fee for 2020-2021 spring semester effective today</td>
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<tr>
<td></td>
<td>15</td>
<td>Friday</td>
<td>Last day to register for spring semester</td>
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<td></td>
<td>18</td>
<td>Monday</td>
<td>Martin Luther King’s birthday holiday observed</td>
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<td>19</td>
<td>Tuesday</td>
<td>Classes resume</td>
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<td></td>
<td>22</td>
<td>Friday</td>
<td>Last day to add a course</td>
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<td>22</td>
<td>Friday</td>
<td>Last day to submit an application for May 2021 degree</td>
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<td></td>
<td>28</td>
<td>Thursday</td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
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<tr>
<td>February</td>
<td>15</td>
<td>Monday</td>
<td>Student Financial Wellness Seminar</td>
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<tr>
<td>March</td>
<td>15-19</td>
<td>Monday-Friday</td>
<td>Spring Break holiday for students</td>
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<tr>
<td></td>
<td>22</td>
<td>Monday</td>
<td>Classes resume</td>
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<td></td>
<td>26</td>
<td>Friday</td>
<td>Last day to withdraw from a course and receive only a W grade if failing</td>
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<tr>
<td>April</td>
<td>12</td>
<td>Monday</td>
<td>Registration begins for 2021-2022 summer term</td>
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<tr>
<td></td>
<td>16</td>
<td>Friday</td>
<td>Last day to submit an application for August 2021 degree</td>
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<tr>
<td>May</td>
<td>7</td>
<td>Friday</td>
<td>Honors Day</td>
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<td></td>
<td>14</td>
<td>Friday</td>
<td>Classes end</td>
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<td></td>
<td>18</td>
<td>Tuesday</td>
<td>$50 late registration fee for 2021-2022 summer term effective today</td>
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<tr>
<td></td>
<td>27</td>
<td>Thursday</td>
<td>2021 Traditional BSN Pinning ceremony</td>
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<tr>
<td></td>
<td>28</td>
<td>Friday</td>
<td>2021 Commencement</td>
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</tbody>
</table>
SCHOOL OF NURSING

Julie Sanford, DNS, RN, Dean
Joseph Tacy, PhD, RN, Associate Dean for Administration
Anne Norwood, PhD, RN, Associate Dean for Advanced Practice and Interim Assistant Dean for Graduate Programs
LaDonna Northington, DNS, RN, Associate Dean for Academic Affairs
Karen Winters, PhD, RN, Interim Associate Dean for Research and Scholarship
Tina Martin, PhD, RN, Assistant Dean for Accreditation and Evaluation and Interim Assistant Dean for Undergraduate Programs
Tammy J. Dempsey, EdD, LMSW, Assistant Dean for Students
Margaret Jeanne Calcote, MS, RN, Director of Nursing and Health Care Administrator Track
Kimberly Douglas, PhD, RN, Director of Nurse Educator Track
Tina Ferrell, PhD, RN, Director of RN to MSN Program
Audwin Fletcher, PhD, RN, Director of Adult-Gerontology Acute Care Nurse Practitioner and Family Nurse Practitioner Tracks
Sherri Franklin, MSN, RN, Director of RN to BSN Program
Carl Mangum, PhD, RN, Interim Director of Psychiatric/Mental Health Nurse Practitioner Tracks
Robyn MacSorley, PhD, RN, Director of Clinical Skills and Simulation Center
Michelle Goreth, DNP, RN, Director of Neonatal Nurse Practitioner and Primary/Acute Care Pediatric Nurse Practitioner Tracks
Michelle Palokas, DNP, RN, Director of DNP Program
Christian Pruett, PhD, Director of Instructional Development and Distance Learning
Mary A. Smith, DNP, RN, Director of Adult-Gerontology Nurse Practitioner Track
Mary W. Stewart, PhD, RN, Director of PhD in Nursing Program
Eva C. Tatum, PhD, RN, Director of Oxford Instructional Site
Farrah Banks, BA, MS, Director of Student Affairs and Service Learning

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) in nursing 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 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 600 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
- Adult-Gerontology (Primary Care) Nurse Practitioner (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)
Master of Science in Nursing
- Adult-Gerontology Acute Care Nurse Practitioner
- Adult-Gerontology (Primary Care) Nurse Practitioner (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)

Post-Master’s in Nursing
- Adult-Gerontology Acute Care Nurse Practitioner
- Adult-Gerontology (Primary Care) Nurse Practitioner (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 (Primary Care) Nurse Practitioner
  - 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 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. Most tracks in 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 blended course delivery. The other tracks primarily use face-to-face course delivery. The Doctor of Nursing Practice Program (DNP) primarily utilizes face-to-face course delivery options, with some courses offered online or through blended course delivery. Information about the Doctor of Philosophy in Nursing Program (PhD) is included in the School of Graduate Studies 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, color, religion, sex, age, disability, marital status, national origin, sexual orientation, genetic information, 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 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 Enrollment Management, 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 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 – March 1
- Spring admission - Jackson campus – September 1
RN to BSN –
- Fall admission – June 1
- Spring admission – November 15
- Summer admission – April 1
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.

RN to MSN –
- Fall admission – June 1
- Spring admission – November 15
- Summer admission – April 1

Post-Master’s – Deadlines same as MSN (check with track director for appropriate semester to enter)

DNP -
- Fall admission – March 31
- Spring admission – October 15
- Summer admission – February 15

BSN to DNP – Nursing and Health Care Administrator track only
- Fall admission – March 31
- Spring admission – October 15
- Summer admission – February 15

*NOTE: Nurse Practitioner tracks in the BSN to DNP Programs only accept admissions for the fall semester.

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 School of Nursing, University of Mississippi, and other participating senior colleges/universities 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 25 or above*;
- A personal interview and a writing sample may be required.

Progression and Retention Criteria for Students in the Freshman Early Entry Program
In order to retain status in the FEE Program, the following conditions must be met:
- Continuous enrollment as a full-time student at the participating institution in each regular semester session;
- All required courses must be taken at the University of Mississippi or other participating institution in the sequence defined by the curriculum. Elective courses may be taken at other institutions;
- Minimum overall GPA of 3.0, on a 4.0 scale, in all courses through the fall semester prior to the scheduled summer enrollment in the upper-division nursing program;
- Minimum grade of "C" in each required prerequisite course.

Matriculation into Traditional BSN Program
Upon completion of the second year of prerequisite coursework at the participating institution, students who meet the progression and retention criteria and have completed all prerequisite requirements (with a minimum grade of C in each course) will be admitted to the Traditional BSN Program. Official acceptance is contingent upon the successful completion of several UMMC requirements, including a background check.
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 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;
- 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 a minimum cumulative GPA of 3.0 AND an overall nursing GPA of 2.5 or higher;
- Must have a minimum grade of C in each prerequisite course and nursing course.
- Failure to adhere to each of these conditions will result in dismissal from the RN to MSN EE program.

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;
- 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.

DNP Early Entry Program (Post-Master’s)

The DNP Early Entry (DNP EE) option permits students admitted to the 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;
- 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 the School of Nursing.

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 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;
- 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.

Students who do not meet the minimum GPA requirements for full admission in the MSN (GPA of 3.0) or DNP (GPA of 3.2) programs, must submit nursing transcripts to the admissions counselor for review. If the required nursing GPA for admission to the program of interest can be attained through NDSS coursework, the student may be eligible for admission as a NDSS.

A written request for enrollment in the specific course(s) must be submitted to the director of the program of interest. If approved, the director will submit a request to the associate dean for academic affairs. 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 NDSS 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 with a nursing GPA of 2.75-2.99 for 3.0 MSN admission requirement or GPA of 3.0-3.19 for 3.2 DNP admission requirement may be considered for conditional admission. Part of the decision making process will require a meeting with the student and the program/track director. The recommendation will then be forwarded to the GAPC committee for consideration. 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 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.

**DEGREE REQUIREMENTS**

All candidates for a baccalaureate degree from the University of Mississippi 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 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 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 a GPA of 3.5 or greater on completed course work at the School of Nursing will be recognized at graduation with the appropriate Latin Honors (summa cum laude (3.90-4.0), magna cum laude (3.75-3.89) and cum laude (3.50-3.74).

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 Enrollment Management. 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**

**Drug Testing**
For more information on the Drug Testing Policy, click [here](#).

**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. Note: This requirement is program specific and students enrolled in the Nursing and Health Care Administrator track, Post-Master’s DNP or the PhD in Nursing program are NOT required to meet this requirement.

**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 immediately 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 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. School of Nursing students complete eight hours of service learning in community settings annually and submit verification of these hours to the School of Nursing Office of Student Affairs and Service Learning.

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 for academic affairs. 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 for academic affairs’ 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 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>
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<tr>
<td>A</td>
<td>Excellent 100–92</td>
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<tr>
<td>B</td>
<td>Good 91–84</td>
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<tr>
<td>C</td>
<td>Satisfactory 83–76</td>
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<tr>
<td>D</td>
<td>Less than satisfactory 75–70</td>
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<tr>
<td>F</td>
<td>Failure below 70</td>
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<tr>
<td>P</td>
<td>Pass (Credit given but no quality points awarded)</td>
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<tr>
<td>I</td>
<td>Incomplete</td>
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<tr>
<td>W</td>
<td>Withdrawn</td>
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<td>X</td>
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</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 School of Nursing 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 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.

**MSN and DNP**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent 100–92</td>
</tr>
<tr>
<td>B</td>
<td>Good 89–80</td>
</tr>
<tr>
<td>C</td>
<td>Satisfactory 79–70</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 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. The Incomplete grade is converted to a grade of F if not removed within 12 months from the time it was assigned.
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 for academic affairs in writing of the request for leave of absence,
- obtain approval from the associate dean for academic affairs, and
- inform the associate dean for academic affairs, 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 6th 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. Exception: If a student has to withdraw from a course that has one or more co-requisites within the same semester, the student will be allowed to withdraw from the co-requisite classes.

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 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 two or more 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.
A student must satisfactorily complete all requirements stated in the syllabus for each course to be eligible for progression. A grade of Incomplete is reported when the student has not fulfilled the course requirements, including Satisfactory/Unsatisfactory assignments.

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.

Progression – Accelerated BSN Program
Any student entering the Accelerated BSN 12 month program option must be successful in all courses within a semester. Failure to successfully complete each course within each semester will result in dismissal from the program. If a student chooses to withdraw from a course, this same principle will apply. The student will have the option (if they choose) to reapply for a spot in the next admission cycle for the prospective site (Oxford or Jackson).

Required Revalidation Skills Checkoff
Students who have been out of a clinical course for more than one year are required to perform a revalidation skills checkoff prior to re-entering classes or clinical. The revalidation is necessary to ensure that the student has retained the knowledge, skills, and abilities to perform safe patient care for the semester to which they are returning. The student will be provided a list of required skills to be assessed and will also be provided opportunities to practice these skills prior to the revalidation skills checkoff. The student should make contact with the assistant dean for undergraduate programs one month prior to the beginning of the entering semester so arrangements for the checkoff can be made.

Probation
For more information on the Probation Policy, click here.

STUDENT COMMUNICATIONS
Current policies may be found on the UMMC Document Center, the Student Handbook and in course syllabi. Please review these policies. For more information on the UMMC Student Communications Policy, click here.

STUDENT COMPLAINTS
Grievance Policy
For more information on the Grievance Policy, click here.

Dismissal
For more information on the Dismissal Policy, click here.

Re-admission
For more information on the Re-admission Policy, click here.

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. The assistant dean for students oversees the office of student affairs and service learning, coordinates, advises, and implements student policy, and manages strategic planning for student affairs.

Counseling
Academic and career counseling is available through 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 2020-2021 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 and fees for the current academic year can be found on the institutional website. Tuition is subject to change pending information from the Institutions of Higher Learning (IHL). Fees are charged to various programs as follows:
Traditional BSN students will be charged a Standardized Learning Product fee of $775.00 with their first semester tuition, and a Skills Supply fee of $250.00 with their second semester. Students are charged a $275.00 simulation fee per semester.

Accelerated BSN students will be charged a $3000.00 Professional fee each semester, in addition to tuition. Students on the Oxford campus will be charged an activity 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.

Graduate Programs*
Tuition and fees for the current academic year can be found on the institutional website. Tuition is subject to change pending information from the Institutions of Higher Learning (IHL).

Fees are charged as follows:
- RN to MSN students will be charged a one-time Skills Supply fee of $250.00 with their first semester tuition.
- Post Baccalaureate DNP students will be charged a one-time Skills Supply fee of $250.00 and a Joanna Briggs Institute (JBI) fee of $375.00 with their first semester tuition.
- DNP students will be charged a Joanna Briggs Institute (JBI) fee of $375.00 with their first semester tuition.
- MSN students will be charged a one-time Skills Supply fee of $250.00 with their first semester tuition.
- Post-Master's Certificate students will be charged a one-time Skills Supply 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.

*Tuition and fees 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.

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. 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
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.

SCHOOL TECHNOLOGY/TOOL/SUPPLY REQUIREMENTS
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, Post-MSN, DNP and PhD programs. Computers must be equipped to accommodate a web cam and microphone.

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.

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 Enrollment Management. Students should complete the transfer of credit process, including receipt of the official transcript in the Office of Enrollment Management verifying successful completion of the course as soon as the course is completed and the grade is available. The deadline for completion of the transfer process, however, is the last day of classes in the semester which the student is graduating. 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 University of Mississippi 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 School of Nursing 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.

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.

The Baccalaureate, Master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

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
Tina Martin, PhD, RN, Interim Assistant Dean of Undergraduate Programs

The Baccalaureate, Master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 302</td>
<td>Health Assessment Throughout the Life Span</td>
<td>3</td>
</tr>
<tr>
<td>N 307</td>
<td>Pathophysiology</td>
<td>4</td>
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SEMESTER II - FALL

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>N 300</td>
<td>Introduction to Health Promotion</td>
<td>3</td>
</tr>
<tr>
<td>N 303</td>
<td>Introduction to Pharmacotherapeutics</td>
<td>3</td>
</tr>
<tr>
<td>N 304</td>
<td>Introduction to Professional Nursing and Evidence-Based Practice</td>
<td>2</td>
</tr>
<tr>
<td>N 309</td>
<td>Foundations of Nursing Practice</td>
<td>5</td>
</tr>
</tbody>
</table>

13
ACCELERATED BACCALAUREATE NURSING PROGRAM

Tina Martin, PhD, RN, Interim Assistant Dean of Undergraduate Programs
Eva C. Tatum, PhD, RN, Director of Oxford Instructional Site

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 in the Oxford campus program are admitted annually for fall semester entry. Students in 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. A problem-based and/or team-based learning methodology is used for course delivery in the Accelerated BSN Program option.

The Baccalaureate, Master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

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

SEMESTER I - FALL
N 412-1 Professional Nursing Role Development I 2
N 413-1 Health and Illness Across the Lifespan I 6
N 434-1 Clinical Practicum I 5
N 405 Basic Health Assessment 2
N 401 Health Promotion in Populations 2
N 433-1 Interprofessional Education I 1

TOTAL HOURS 18
<table>
<thead>
<tr>
<th>SEMESTER II - SPRING</th>
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</thead>
<tbody>
<tr>
<td>N 413-2 Health and Illness Across the Lifespan II</td>
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<tr>
<td>N 434-2 Clinical Practicum II</td>
<td>5</td>
</tr>
<tr>
<td>N 403 Healthcare Leadership and Collaboration</td>
<td>3</td>
</tr>
<tr>
<td>N 436 Scholarship for Evidence Based Practice</td>
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<tr>
<td>N 433-2 Interprofessional Education II</td>
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<tr>
<th>SEMESTER III - SUMMER</th>
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</tr>
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<tbody>
<tr>
<td>N 412-2 Professional Nursing Role Development II</td>
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<td>N 413-3 Health and Illness Across the Lifespan III</td>
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<tr>
<td>N 434-3 Clinical Practicum III</td>
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<tr>
<td>N 497 Nursing Capstone</td>
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<tr>
<td>N 433-3 Interprofessional Education III</td>
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Total Hours: 12

<table>
<thead>
<tr>
<th>SEMESTER III - FALL</th>
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</tr>
</thead>
<tbody>
<tr>
<td>N 413-3 Health and Illness Across the Lifespan III</td>
<td>6</td>
</tr>
<tr>
<td>N 434-3 Clinical Practicum III</td>
<td>5</td>
</tr>
<tr>
<td>N 497 Nursing Capstone</td>
<td>2</td>
</tr>
<tr>
<td>N 412-2 Professional Nursing Role Development II</td>
<td>1</td>
</tr>
<tr>
<td>N 436 Scholarship for Evidence Based Practice</td>
<td>3</td>
</tr>
<tr>
<td>N 433-3 Interprofessional Education III</td>
<td>1</td>
</tr>
</tbody>
</table>

Total Hours: 18

**RN to BSN PROGRAM (Post-RN and Dual Enrollment Program)**

Sherri Franklin, MSN, RN, Program Director

*Admission to the RN to BSN Dual Enrollment Program is currently suspended*

**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 32 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 the School of Nursing through a dual enrollment route. Only students from partnering community colleges are eligible to participate. Admission to the DEP is competitive.

**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 2.0 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
*Admission to the RN to BSN Dual Entry Program is currently suspended
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.

The Baccalaureate, Master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

PROGRAM ADMISSION REQUIREMENTS
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.

*Statistics may be taken as a prerequisite prior to or during enrollment in the RN to BSN Program.

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
- History
- Anthropology
- Political Science
- Economics
- Social Problems or other sociology courses
- Geography
- 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

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<tr>
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<td>Survey of Religion</td>
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<tr>
<td>Journalism</td>
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</table>

Unacceptable Courses
None of the required courses listed, described, or recommended on the previous page 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.

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.

- Core Courses (26 credit hours) plus Electives (4 credit hours)
  - N 421-Transitions and Trends in Professional Nursing: 3
  - N 408-1 -Health Promotion in Populations: 2
  - N 406-Health Assessment: 2
  - N 407-Pathophysiology: 3
  - N 432-Introduction to Professional Writing: 3
  - N 462-Professional Role Enactment: 2
  - N 428-Nursing Research: 3
  - N 528-Leadership and Management: 3
  - N 431-Patient Safety and Quality Improvement: 2
  - N 461-Management and Leadership Practicum: 3

- Approved Electives: 4

Total Hours: 30

RN to MSN PROGRAM
Tina Ferrell, PhD, RN, Program Director

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 32 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.

Classrooms at all sites are equipped with distance learning technology. The courses for most tracks are offered online or in a blended format. Online courses meet synchronously or asynchronously and may require attendance at proctored examination or lab experiences. Blended 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 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 (Primary Care) Nurse Practitioner, 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: AGNP, FNP, NED, NHCA, and PMHNP.

Admission Criteria
1. A completed application;
2. A resume providing an overview of education, credentials, work experience, skills and accomplishments;
3. Completion of required prerequisite courses with a minimum grade of C in each course;
4. 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;
5. A minimum cumulative GPA of 3.0 on a 4.0 scale;
6. 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. Applicants for the Neonatal Nurse Practitioner Program must have at least one year of clinical experience as an RN prior to beginning the Neonatal Nurse Practitioner track and 2 years of NICU clinical experience as an RN before taking any clinical courses. Applicants for the Pediatric Nurse Practitioner Program must have at least one year of clinical experience as an RN in pediatrics prior to beginning the program and 2 years of pediatric clinical experience as an RN before taking any clinical courses;
7. Evidence of current unrestricted licensure (RN) to practice in the United States and licensure/privilege to practice in Mississippi;
8. 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;
9. Preadmission Counseling (completed after the application is reviewed by the Graduate Admissions and Progression Committee);
10. Official transcripts from all schools attended.

Preference is given to applicants with recent full-time experience relevant to the selected track. 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.

The Baccalaureate, Master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

**PROGRAM ADMISSION REQUIREMENTS**

**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.

**Suggested Courses for Natural Science/Math Electives**

Any math higher than College Algebra
- Biology (for science majors)
- Chemistry (for science majors)
- Genetics

- 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.

**Suggested Courses for Natural Science/Math Electives**

- 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)**

- Abnormal Psychology or other psychology courses
- Anthropology
- Economics
- Geography
- History
- Political Science
- Social Problems or other sociology courses
- Nutrition

**Humans 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

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The University of Mississippi Medical Center
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.

SUGGESTED PLANS OF STUDY

FAMILY NURSE PRACTITIONER
Audwin Fletcher, PhD, RN, Track Director

RN to MSN PLAN OF STUDY
SUMMER
N 521-1 Concepts of Professional Nursing Practice 4
N 533 Portal to Research Design and Methods 1
N 526 Portal to Advanced Health Assessment 1
N 538 Healthcare Leadership and Collaboration 3

FALL
N 524 Portal to Advanced Physiology/Pathophysiology 2
N 527 Health Promotion in Populations 2
N 610 Reproductive Health for Advanced Nursing Practice 3
N 633 Research Design and Methods for Advanced Nursing Practice 2
N 677 Advanced Health Assessment 3

SPRING
N 637 Advanced Physiology/Pathophysiology 3
N 666 Clinical Pharmacotherapeutics 3
N 531-1 Health IT and Patient Safety 3
N 612 Therapeutic Management of the Pediatric Patient 2
N 685-1 Practicum in Primary Care I (90 clinical hours) 2

SUMMER
ID 630 Health Care Quality Improvement 3
N 617 Informatics and Health Care Technology 1
N 682-1 Therapeutic Management in Primary Care I 2
N 685-2 Practicum in Primary Care II (135 clinical hours) 3

FALL
N 632 Discipline of Nursing 2
N 682-2 Therapeutic Management in Primary Care II 2
N 685-3 Practicum in Primary Care III (180 clinical hours) 4
N 669 Role Development and Role Enactment for Advanced Role Practice in Nursing 3

SPRING
N 607-1 Health Policy and Population Health 2
N 652-1 Finance and Leadership in Health Care Systems 3
N 682-3 Therapeutic Management in Primary Care Management III 2
N 685-4 Practicum in Primary Care IV (225 clinical hours) 5

Total Hours 66

NURSE EDUCATOR
Kimberly Douglas, PhD, RN, Track Director

RN to MSN PLAN OF STUDY
SUMMER
N 521-1 Concepts of Professional Nursing Practice 4
N 533 Portal to Research Design and Methods 1
N 538 Healthcare Leadership and Collaboration 3
N 526 Portal to Advanced Health Assessment 1
### Fall

- N 524: Portal to Advanced Pathology/Pathophysiology (2)
- N 613: Foundations of Nurse Educator Role and Teaching Methods (3)
- N 632: Discipline of Nursing (2)
- N 633: Research Design and Methods for Advanced Nursing Practice (2)
- N 677: Advanced Health Assessment (3)

### Spring

- N 531-1: Health IT and Patient Safety (3)
- N 614-1: Nurse Educator Practicum (Practicum I) (90 clinical hours) (2)
- N 637: Advanced Physiology/Pathophysiology (3)
- N 666: Clinical Pharmacotherapeutics (3)

### Summer

- ID 630: Health Care Quality Improvement (3)
- N 527: Health Promotion in Populations (2)
- N 615-1: Educational Technology and Health Care Informatics (3)
- N 620-1: Direct Care Role of the Nurse Educator (Practicum II) (90 clinical hours) (2)

### Total Hours

- 54

### Adult-Gerontology Acute Care Nurse Practitioner

**Audwin Fletcher, PhD, RN, Track Director**

#### RN to MSN Plan of Study

**Summer**

- N 521-1: Concepts of Professional Nursing Practice (4)
- N 533: Portal to Research Design and Methods (1)
- N 526: Portal to Advanced Health Assessment (1)
- N 538: Healthcare Leadership and Collaboration (3)

**Fall**

- N 524: Portal to Advanced Physiology/Pathophysiology (2)
- N 527: Health Promotion in Populations (2)
- N 600: Application and Interpretation of Adult-Gerontology Acute Care Diagnostic Modalities (2)
- N 633: Research Design and Methods for Advanced Nursing Practice (2)
- N 677: Advanced Health Assessment (3)

**Spring**

- N 531-1: Health IT and Patient Safety (3)
- N 601-1: Practicum in Adult-Gerontology Acute Care Nurse Practitioner I (45 clinical hours) (1)
- N 637: Advanced Physiology/Pathophysiology (3)
- N 666: Clinical Pharmacotherapeutics (3)

**Summer**

- ID 630: Health Care Quality Improvement (3)
- N 617: Informatics and Health Care Technology (1)
- N 601-2: Practicum in Adult-Gerontology Acute Care Nurse Practitioner II (135 clinical hours) (3)
- N 605-1: Adult-Gerontology Acute Care Assessment, Management, and Evaluation I (2)

**Fall**

- N 601-3: Practicum in Adult-Gerontology Acute Care Nurse Practitioner III (225 clinical hours) (5)
- N 605-2: Adult-Gerontology Acute Care Assessment, Management, and Evaluation II (2)
- N 632: Discipline of Nursing (2)
- N 669: Role Development and Role Enactment for Advanced Role Practice in Nursing (3)
SPRING
N 601-4 Practicum in Adult-Gerontology Acute Care Nurse Practitioner IV (225 clinical hours) 5
N 607-1 Health Policy and Population Health 2
N 652-1 Finance and Leadership in Health Care Systems 3

Total Hours 61

NURSING AND HEALTH CARE ADMINISTRATOR
Margaret Jeanne Calcote, MS, RN, Track Director
RN to MSN PLAN OF STUDY
SUMMER
N 521-1 Concepts of Professional Nursing Practice 4
N 533 Portal to Research Design and Methods 1
N 538 Healthcare Leadership and Collaboration 3

FALL
N 527 Health Promotion in Populations 2
N 540 Portal to Fiscal and Operations Management 1
N 632 Discipline of Nursing 2
N 652-1 Finance and Leadership in Health Care Systems 3

SPRING
N 531-1 Health IT and Patient Safety 3
N 633 Research Design and Methods for Advanced Nursing Practice 2
N 641 Fiscal and Operations Management 3
N 545 Portal to Organizational Leadership and Communication 2

SUMMER
ID 630 Health Care Quality Improvement 3
N 640 Project Management 3
N 646 Organizational Leadership and Communication 3

FALL
N 644 Human Resource Management 3
N 607-1 Health Policy and Population Health 2
N 658 Strategic Management 3

SPRING
N 659 Residency in Nursing and Health Care Administrator Role (525 clinical hours) 7
N 696 Directed Study in Management Research 3

Total Hours 53

ADULT-GERONTOLOGY (Primary Care) NURSE PRACTITIONER
Mary A. Smith, DNP, RN, Track Director
RN to MSN PLAN OF STUDY
SUMMER
N 521-1 Concepts of Professional Nursing Practice 4
N 533 Portal to Research Design and Methods 1
N 526 Portal to Advanced Health Assessment 1
N 538 Healthcare Leadership and Collaboration 3

FALL
N 524 Portal to Advanced Physiology/Pathophysiology 2
N 610-2 Reproductive Health for Adult Practitioners 2
N 633 Research Design and Methods for Advanced Nursing Practice 2
N 677 Advanced Health Assessment 3
N 527 Health Promotion in Populations 2
### SPRING

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<td>Advanced Physiology/Pathophysiology</td>
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<td>N 666</td>
<td>Clinical Pharmacotherapeutics</td>
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<td>N 531-1</td>
<td>Health IT and Patient Safety</td>
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<td>N 607-1</td>
<td>Health Policy and Population Health</td>
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### SUMMER

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<tr>
<td>N 669</td>
<td>Role Development and Role Enactment for Advanced Role Practice in Nursing</td>
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### SPRING

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<td>Finance and Leadership in Health Care Systems</td>
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<td>N 627-6</td>
<td>Clinical Management of Adults and Older Adults III</td>
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<td>N 628-6</td>
<td>Practicum in Clinical Management of Adults and Older Adults III (270 clinical hrs.)</td>
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**Total Hours**: 64

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### FAMILY PSYCHIATRIC MENTAL HEALTH NURSE PRACTITIONER

#### Carl Mangum, PhD, RN, Interim Track Director

**RN to MSN PLAN OF STUDY**

### SUMMER

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<td>Portal to Research Design and Methods</td>
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<td>Portal to Advanced Health Assessment</td>
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</tr>
<tr>
<td>N 538</td>
<td>Healthcare Leadership and Collaboration</td>
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### FALL

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<td>Health Promotion in Populations</td>
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<td>N 633</td>
<td>Research Design and Methods for Advanced Nursing Practice</td>
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<tr>
<td>N 677</td>
<td>Advanced Health Assessment</td>
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<tr>
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<td>N 637</td>
<td>Advanced Physiology/Pathophysiology</td>
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<td>N 531-1</td>
<td>Health IT and Patient Safety</td>
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<tr>
<td>N 607-1</td>
<td>Health Policy and Population Health</td>
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<td>N 617</td>
<td>Informatics and Health Care Technology</td>
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<td>N 687-1</td>
<td>Clinical Assessment of Persons with Mental Health Problems – Family</td>
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<td>Practicum in Clinical Assessment of Persons with MH Problems I – Family (180 clinical hrs.)</td>
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### FALL

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<td>N 632</td>
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<td>N 687-2</td>
<td>Clinical Management of Individuals with Mental Health Problems II – Family</td>
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<tr>
<td>N 686-2</td>
<td>Practicum in Clinical Management of Individuals with Mental Health Problems II – Family (180 clinical hours)</td>
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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
SPRING

N 652-1 Finance and Leadership in Health Care Systems 3
N 687-3 Clinical Management of Families and Groups with Mental Health Problems III 2
N 686-3 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

Anne Norwood, PhD, RN, Interim Assistant Dean of Graduate Programs

The University of Mississippi School of Nursing, located on the only health science campus in Mississippi, provides an excellent environment for learning. The School of Nursing shares the campus with six other professional schools: Medicine, Health Related Professions, Dentistry, Pharmacy, Population Health, and Graduate Studies in the Health Sciences. The School of Nursing 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 blended format. Online courses meet synchronously or asynchronously and may require attendance at proctored examination or lab experiences. Blended 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 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 (Primary Care) Nurse Practitioner, 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: 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.

The Baccalaureate, Master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

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 Enrollment Management, 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 the master’s program is based on evaluation of the following by the Graduate Admission and Progression Committee.

1. A complete application;
2. A resume providing an overview of education, credentials, work experience, skills, and accomplishments;
3. 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;
4. A cumulative GPA of 3.0 or higher on a 4.0 scale;
5. Undergraduate or graduate level statistics course;
6. One year of experience as an 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 of experience as an RN in critical/emergency care prior to beginning the program. Applicants for the Neonatal Nurse Practitioner Program must have at least one year of clinical experience as an RN prior to beginning the Neonatal Nurse Practitioner track and 2 years of NICU clinical experience as an RN before taking any clinical courses. Applicants for the Pediatric Nurse Practitioner Program must have at least one year of clinical experience as an RN in pediatrics prior to beginning the program and 2 years of pediatric clinical experience as an RN before taking any clinical courses.
7. Evidence of current unrestricted licensure (RN) to practice in the United States and licensure/privilege to practice in Mississippi;
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).

Preference is given to applicants with recent full-time experience relevant to the selected track. 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 (Primary Care) NURSE PRACTITIONER

Mary A. Smith, DNP, RN, Track Director

The Adult-Gerontology (Primary Care) Nurse Practitioner 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

FALL

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<td>Finance and Leadership in Health Care Systems</td>
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<tr>
<td>N 610-2</td>
<td>Reproductive Health for Adult Practitioners</td>
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THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
### SPRING

- **N 637** Advanced Physiology/Pathophysiology
- **N 633** Research Design and Methods for Advanced Nursing Practice
- **N 666** Clinical Pharmacotherapeutics

### SUMMER

- **N 627-4** Clinical Management of Adults and Older Adults I
- **N 628-4** Practicum in Clinical Management of Adults and Older Adults I (180 clinical hours)
- **N 617** Informatics and Health Care Technology
- **ID 630** Health Care Quality Improvement

### FALL

- **N 669** Role Development and Role Enactment for Advanced Role Practice in Nursing
- **N 627-5** Clinical Management of Adults and Older Adults II
- **N 628-5** Practicum in Clinical Management of Adults and Older Adults II (180 clinical hours)

### SPRING

- **N 607** Health Policy and Population Health
- **N 627-6** Clinical Management of Adults and Older Adults III
- **N 628-6** Practicum in Clinical Management of Adults and Older Adults III (270 clinical hours)

**Total Hours: 48**

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### FAMILY NURSE PRACTITIONER

Audwin Fletcher, PhD, RN, Track Director

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

- **N 632** Discipline of Nursing
- **N 677** Advanced Health Assessment
- **N 610** Reproductive Health for Advanced Nursing Practice

#### SPRING

- **N 637** Advanced Physiology/Pathophysiology
- **N 633** Research Design and Methods for Advanced Nursing Practice
- **N 612** Therapeutic Management of the Pediatric Client
- **N 685-1** Practicum in Primary Care I (90 clinical hours)
- **N 666** Clinical Pharmacotherapeutics

#### SUMMER

- **N 682-1** Therapeutic Management in Primary Care I
- **N 685-2** Practicum in Primary Care II (135 clinical hours)
- **ID 630** Health Care Quality Improvement
- **N 617** Informatics and Health Care Technology

#### FALL

- **N 682-2** Therapeutic Management in Primary Care II
- **N 685-3** Practicum in Primary Care III (180 clinical hours)
- **N 652-1** Finance and Leadership in Health Care Systems
- **N 669** Role Development and Role Enactment for Advanced Role Practice in Nursing

#### SPRING

- **N 607** Health Policy and Population Health
- **N 682-3** Therapeutic Management in Primary Care III
- **N 685-4** Practicum in Primary Care IV (225 clinical hours)

**Total Hours: 50**
ADULT–GERONTOLOGY ACUTE CARE NURSE PRACTITIONER
Audwin Fletcher, PhD, RN, Track Director

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**

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**Total Hours**  **45**

NEONATAL NURSE PRACTITIONER
Michelle Goreth, DNP, RN, Track Director

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**

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SUMMER
N 617  Informatics and Health Care Technology  1
ID 630  Health Care Quality Improvement  3
N 629-1  Advanced Neonatal Nursing I  3
N 634-1  Practicum I – Neonatal Nurse Practitioner I (90 clinical hours)  2
FALL
N 669  Role Development and Role Enactment for Advanced Role Practice in Nursing  3
N 629-2  Advanced Neonatal Nursing II  4
N 634-2  Practicum II – Neonatal Nurse Practitioner II (135 clinical hours)  3
SPRING
N 607-1  Role Development and Role Enactment for Advanced Role Practice in Nursing  3
N 612-3  Therapeutic Management of the Pediatric Client II (chronic care)  2
N 661-2  Practicum for Pediatrics II (180 clinical hours)  4
SUMMER
N 634-4  Residency Program (270 clinical hours)  7
Total Hours  53

PRIMARY/ACUTE CARE PEDIATRIC NURSE PRACTITIONER (DUAL ROLE)
Michelle Goreth, DNP, RN, Track Director

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
N 632  Discipline of Nursing  2
N 633  Research Design and Methods for Advanced Nursing Practice  2
N 652-1  Finance and Leadership in Health Care Systems  3
N 677  Advanced Health Assessment  3
N 660  Focus on Advanced Nursing Practice Specialization – Pediatrics  2
SPRING
N 637  Advanced Physiology/Pathophysiology  3
N 666  Clinical Pharmacotherapeutics  3
N 612-1  Therapeutic Management of the Pediatric Client  2
N 661-1  Practicum for Pediatrics I (180 clinical hours, primary care)  4
SUMMER
N 617  Informatics and Health Care Technology  1
ID 630  Health Care Quality Improvement  3
N 612-2  Therapeutic Management of the Pediatric Client II (chronic care)  2
N 661-2  Practicum for Pediatrics II (180 clinical hours)  4
FALL
N 669  Role Development and Role Enactment for Advanced Role Practice in Nursing  3
N 612-3  Therapeutic Management of the Pediatric Client III (acute care)  2
N 661-3  Practicum for Pediatrics III (180 clinical hours)  4
SPRING
N 607-1  Health Policy and Population Health  2
N 612-4  Therapeutic Management of the Pediatric Client IV (critical care)  2
N 661-4  Practicum for Pediatrics IV (180 clinical hours)  4
SUMMER
N 661-5  Residency Program (270 clinical hours)  7
Total Hours  58
FAMILY PSYCHIATRIC MENTAL HEALTH NURSE PRACTITIONER

Carl Mangum, PhD, RN, Interim Track Director

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
N 632 Discipline of Nursing 2
N 652-1 Finance and Leadership in Health Care Systems 3
N 677 Advanced Health Assessment 3

SPRING
N 637 Advanced Physiology/Pathophysiology 3
N 633 Research Design and Methods for Advanced Nursing Practice 2
N 666 Clinical Pharmacotherapeutics 3

SUMMER
N 686-1 Practicum in Clinical Assessment of Persons with Mental Health Problems I – Family (180 clinical hours) 4
N 687-1 Clinical Assessment of Persons with Mental Health Problems I – Family 2
N 617 Informatics and Health Care Technology 1
ID 630 Health Care Quality Improvement 3

TOTAL HOURS 46

NURSE EDUCATOR

Kimberly Douglas, PhD, RN, Track Director

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 blended courses.

PLAN OF STUDY

FALL
N 677 Advanced Health Assessment 3
N 632 Discipline of Nursing 2
N 652-1 Finance and Leadership in Health Care Systems 3
N 613 Foundations of Nurse Educator Role and Teaching Methods 3

SPRING
N 637 Advanced Physiology/Pathophysiology 3
N 614-1 Nurse Educator Practicum I (90 clinical hours) 2
N 666 Clinical Pharmacotherapeutics 3
N 607-1 Health Policy and Population Health 2
N 633 Research Design and Methods for Advanced Nursing Practice 2
SUMMER
N 615-1 Educational Technology and Health Care Informatics 3
ID 630 Health Care Quality Improvement 3
N 620-1 Direct Care Role of the Nurse Educator Practicum II (90 clinical hours) 2

FALL
N 616-1 Curriculum and Program Development and Evaluation 3
N 625 Nurse Educator Practicum III (180 clinical hours) 4

Total Hours 38

NURSING AND HEALTH CARE ADMINISTRATOR
Margaret Jeanne Calcote, MS, RN, Track Director
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
N 632 Discipline of Nursing 2
N 644 Human Resource Management 3
N 658 Strategic Management 3
N 652-1 Finance and Leadership in Health Care Systems 3

SPRING
N 641 Fiscal and Operations Management 3
N 607-1 Health Policy and Population Health 2
N 633 Research Design and Methods for Advanced Nursing Practice 2

SUMMER
ID 630 Health Care Quality Improvement 3
N 646 Organizational Leadership and Communication 3
N 640 Project Management (or another approved elective) 3

FALL 2
N 659 Residency in the Nursing and Health Care Administrator Role (525 clinical hours) 7
N 696 Directed Study in Management Research 3

Total Hours 37

POST-MASTER’S (PMN) CERTIFICATE
Anne Norwood, PhD, RN, Interim Assistant Dean of Graduate Programs
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: 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 Enrollment Management, 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.

The Baccalaureate, Master's, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

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. 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;
5. One year of experience as a RN is required for all nurse practitioner tracks prior to beginning courses. 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 courses;
6. Evidence of current unrestricted licensure (RN) to practice in the United States and licensure/privilege to practice in Mississippi;
7. Official transcripts from all schools attended;
8. 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;
9. 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 tracks based on the number of acceptable applicants admitted. When a track is not offered due to limited enrollment, the applicant will be notified and other admission options will be explored.

Residence
Depending upon the Post-Master's 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 Post-Master’s certificate must be completed within a six-year time span.
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. For the Adult Geriatric Acute Care Nurse Practitioner Track, students with ER/ICU experience as a nurse practitioner will complete a minimum of 500 clinical hours and may be required to complete up to 630 clinical hours. 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

Michelle Palokas, DNP, RN, Program Director

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.

The Baccalaureate, Master’s, and DNP programs are accredited by the Commission on Collegiate Nursing Education (CCNE).

APPLICATION INFORMATION

Admissions to the Post-Master’s DNP and BSN to DNP – Nursing and Health Care Administrator track are accepted for the spring, summer, and fall semesters. Application deadlines are as follows: Spring – October 15, Summer – February 15 and Fall – March 31. Admissions to all of the BSN to DNP Nurse Practitioner tracks are accepted for fall semester only. The application deadline for fall semester admission is March 31.

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. 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.
   d. 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;
   e. One year of professional nursing experience required;
   f. Completion of at least one research course and one statistics course at the undergraduate or graduate level;
   g. Informal personal statement submitted with application addressing the following:
      • Why are you seeking admission to the DNP Program?
      • Why are you seeking admission to the UMMC School of Nursing DNP program, specifically?
      • What are your qualifications and readiness for this program?
      • What are you short and long-term career goals? How can pursuing a DNP help you reach those goals?
      • What scholarly project do you plan to pursue in the program?
   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 SYSTEMATIC REVIEW/SCHOLARLY PROJECT

Each DNP student is required to implement evidence based healthcare through the completion of a systematic review, using the Joanna Briggs methodology, and a scholarly project. After completion of a systematic review, students will identify and carry through a project, such as pilot study, a quality improvement project, a consulting project, or program implementation. A systematic review secondary reviewer and a scholarly project committee guide the student through identification of a clinical question, acquisition and appraisal of the best evidence, and project planning, implementation, and evaluation.

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 Systematic Review/DNP Scholarly Project. Students in the Post-Baccalaureate DNP plan of study will obtain a minimum of 1,000 clinical hours in the program.

POST-BACCALAUREATE DNP PLAN OF STUDY - Nursing and Health Care Administrator
Margaret Jeanne Calcote, MS, RN, Track Director

FALL
N 632 Discipline of Nursing 2
N 652-1 Finance and Leadership in Health Care Systems 3
DNP 720 Biostatistics I 3

SPRING
N 607-1 Health Policy and Population Health 2
N 633 Research Design and Methods for Advanced Nursing Practice 2
N 641 Fiscal and Operations Management 3
DNP 700 Clinical Applied Epidemiology 3

SUMMER
ID 730 Health Care Quality Improvement (75 clinical hours) 3
N 646 Organizational Leadership and Communication 3
DNP 703 Population Health 3

FALL
N 644 Human Resource Management 3
N 658 Strategic Management 3
DNP 740 Project Management (75 clinical hours) 3
DNP 701 Theoretical Foundations for Advanced Nursing Practice 3

SPRING
DNP 704 Leadership in Health Systems 3
DNP 707 Health Care Finance 3
DNP 702-1 Transforming Advanced Nursing Practice (75 clinical hours) 3

SUMMER
DNP 706 Evaluation Approaches, Models and Methods 3
DNP 705 Practice Inquiry I 1
DNP 712 Scholarly Project (75 clinical hours) 1
### POST-BACCALAUREATE DNP PLAN OF STUDY - Adult-Gerontology Acute Care NP

Audwin Fletcher, PhD, RN, Track Director

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**Total Hours**: 79  
**Total Clinical Hours**: 1230
## POST-BACCALAUREATE DNP PLAN OF STUDY - Adult-Gerontology NP

Mary A. Smith, DNP, RN, Track Director

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**Total Hours** 82  
**Total Clinical Hours** 1230

## POST-BACCALAUREATE DNP PLAN OF STUDY - Family NP

Audwin Fletcher, PhD, RN, Track Director

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**POST-BACCALAUREATE DNP PLAN OF STUDY - Psychiatric/Mental Health NP**

Carl Mangum, PhD, RN, Interim Track Director

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<td>DNP 720</td>
<td>Biostatistics I</td>
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<td>N 677</td>
<td>Advanced Health Assessment</td>
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<td>SPRING</td>
<td>N 607-1</td>
<td>Health Policy and Population Health</td>
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<td>DNP 700</td>
<td>Clinical Applied Epidemiology</td>
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<td>N 633</td>
<td>Research Design and Methods for Advanced Nursing Practice</td>
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<td>Clinical Pharmacotherapeutics</td>
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### SUMMER
- DNP 703 Population Health 3
- DNP 706 Evaluation Approaches, Models and Methods 3
- ID 730 Health Care Quality Improvement (75 clinical hours) 3

### FALL
- ID 718 Health Policy and the Health Care System 3
- DNP 740 Project Management (75 clinical hours) 3
- DNP 701 Theoretical Foundations for Advanced Nursing Practice 3

### SPRING
- DNP 704 Leadership in Health Systems 3
- DNP 707 Health Care Finance 3
- DNP 702-1 Transforming Advanced Nursing Practice (75 clinical hours) 3

### SUMMER
- N 687-1 Clinical Assessment of Persons with Mental Health Problems I – Family 2
- N 686-1 Practicum in Clinical Assessment of Persons with MH Problems I – Family (180 clin hrs.) 4
- DNP 705 Practice Inquiry I 1
- DNP 712 Scholarly Project (75 clinical hours) 1

### FALL
- N 687-2 Clinical Assessment of Persons with Mental Health Problems II – Family 3
- N 686-2 Practicum in Clinical Assessment of Persons with MH Problems II – Family (180 clin hrs.) 4
- DNP 769 Role Development and Role Enactment for Advanced Role Practice in Nursing 1
- DNP 708 Practice Inquiry II 1
- DNP 712 Scholarly Project (150 clinical hours) 2

### SPRING
- N 687-3 Clinical Management of Families and Groups with MH Problems III 2
- N 686-3 Practicum in Clinical Management of Families & Groups III (270 clinical hours) 6
- DNP 712 Scholarly Project (150 clinical hours) 2

**Total Hours** 80
**Total Clinical Hours** 1230

### POST-MASTER’S DNP PLAN OF STUDY

#### FALL
- ID 718 Health Policy and the Health Care System 3
- DNP 720 Biostatistics I 3
- DNP 701 Theoretical Foundations for Advanced Nursing Practice 3

#### SPRING
- DNP 700 Clinical Applied Epidemiology 3
- DNP 704 Leadership in Health Systems 3
- DNP 702-1 Transforming Advanced Nursing Practice (75 clinical hours) 3

#### SUMMER
- ID 730 Health Care Quality Improvement (75 clinical hours) 3
- DNP 703 Population Health 3
- DNP 705 Practice Inquiry I 1
- DNP 712 Scholarly Project (75 clinical hours) 1

#### FALL
- DNP 706 Evaluation Approaches, Models and Methods 3
- DNP 708 Practice Inquiry II 1
- DNP 740 Project Management (75 clinical hours) 3
- DNP 712 Scholarly Project (75 clinical hours) 1

#### SPRING
- DNP 707 Health Care Finance 3
- DNP 712 Scholarly Project (150 clinical hours) 2
**PhD IN NURSING PROGRAM**
Mary W. Stewart, PhD, RN, Program Director

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.

**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.

**COURSES OF INSTRUCTION**

**DNP 700. Clinical Applied Epidemiology.** This course provides an overview of the basic epidemiological methods and study designs that may be used by advanced practice nurses to study the health of populations. This course will combine a focus on traditional and social epidemiology to examine how society and social organizations influence health and well-being of individuals and populations. In particular, this course will address the frequency, distribution, surveillance and tracking of disease as well as the social determinants of states of health in populations. The course will include new methods and new applications of already known epidemiological methods for elucidating the complex and socioecological web within which the health-disease phenomenon occurs. Online, Internet, or Web-based Lecture (3 hours)

**DNP 701. Theoretical Foundations for Adv Nur Prac.** This course examines relevant theories and models from nursing and related disciplines for applicability to advanced nursing practice. Role theory, learning theory, psychological theory, management theory, leadership theory, consultation models and collaborative models are analyzed for historical significance, relative scientific position and contemporary application for advanced nursing practice and practice inquiry. Systematic examination, evaluation and refinement of relevant theories and models enable the student to develop a conceptual model for practice within a relevant setting. Online, Internet, or Web-based Lecture (3 hours)

**DNP 702-1. 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/Lab (3 hours)

**DNP 703. Population Health.** This course builds upon prior learning experiences related to community and population health and provides the student with an understanding of current concepts of population health, with a specific focus on multiple determinants of health of populations as well as health inequities. The course also includes concepts of public health, health promotion, environmental/occupational health, and population health policy development and evaluation. Students will consider various methods, tools and models for applying population health improvement concepts into various advanced practice roles such as in clinical settings; in integrated delivery systems; in formal population health improvement roles; and in policy development. The goal of the course is to provide the student with a basis for incorporating population health principles into their advanced nursing practice roles. Online, Internet, or Web-based Lecture (3 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 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 hour)

DNP 706. Evaluation Approaches, Models & Methods. In this course, the student will examine evaluation approaches, models and methods and propose an appropriate evaluation plan for an identified clinical problem. Outcomes measurement, process improvement, program evaluation, impact analysis, and provider performance are studied. Traditional Lecture (3 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 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 (3 hours)

DNP 712. Scholarly Project. In this course, the student identifies an inquiry area. A Secondary Reviewer works with the student throughout the systematic review process and may consult for the Scholarly Project. A two-member committee, for the Scholarly Project 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. Traditional Clinical Rotation (1-5 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 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 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 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 hours)

DNP 769. Role Dvlpmt & 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 hour)

ID 500. Nurse Educator Intensive. 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 hours)

ID 600. Nurse Educator Intensive. 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 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 (3 hours)

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 hours)

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 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 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 hours)

N 304. Intro to Prof Nurs & Evidence Based Pract. 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 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 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 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 hours)

N 319. Special Topics in Nsg and Healthcare. This elective course enables the student to use learning experiences focused on selected topics in specials and healthcare nursing to satisfy individual learning needs and interests. Online, Internet, or Web-based Independent Study (1-3 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 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 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 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 (1-2 hours)

N 401. 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. Student 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. Traditional Lecture (2 hours)

N 403. Healthcare Leadership and Collaboration. This course describes the functions and roles of leadership, management, and fellowship in professional nursing. Decision-making, communication, motivation changes, theories, managed care and legal/ethical issues are presented in an active learning environment to enhance the development of a beginning nurse leader. Online, Internet, or Web-based Lecture (3 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 pedagogues, foundational assessment skills across the lifespan, and documentation. Traditional Lecture/Lab (2 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 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 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 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 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 hours)

N 412-2. Professional Nsg 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 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 multiple teaching modalities. Traditional Lecture (1 hour)

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 multiple teaching modalities. Traditional Lecture (6 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 multiple teaching modalities. Traditional Lecture (6 hours)

N 419. Special Topics in Nsg and Healthcare. This elective course enables the student to use learning experiences focused on selected topics in specialties and healthcare nursing to satisfy individual learning needs and interests. Online, Internet, or Web-based Independent Study (1-3 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 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 hours)

N 426. Maternal-Newborn Nursing. This didactic and clinical course focuses on nursing care for 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 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 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 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 hours)

N 432. Introduction to Professional Writing. This course provides students an opportunity to cultivate basic written communication skills necessary to express themselves professionally. The principles and practices examined in this class will assist the learner in responding effectively to professional writing scenarios. This course provides practice in the composition of traditional writing forms preparing the students for writing success in the professional and academic setting. Online, Internet, or Web-based Lecture (1-3 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 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 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 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 (5 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 (4-5 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 (4-5 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 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. Emphasis is placed on critical analysis of published research studies regarding credibility, quality, and implications for clinical nursing practice. Ethical concepts related to the research process are integrated throughout the course. Traditional Lecture (3 hours)

N 438. Essentials of Wound Care. This elective course is designed for the student with an interest in the management of acute and chronic wounds. This course provides the student with in-depth knowledge of wound care, including etiology, risk assessment, prevention, and treatment modalities utilizing current research findings and evidence based practice. Emphasis is placed on the use of the nursing process in all aspects of skin and wound care with specific focus on pressure ulcers, neuropathic ulcers, vascular insufficiency ulcers, surgical wounds and skin tears. Regulatory issues relating to skin and wound care are also explored. Online, Internet, or Web-based Lecture (2 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 hours)

N 440. Politics, Policy and Nursing (Online). This course provides knowledge and understanding needed to participate as a professional nurse in health policy development, analysis and implementation. The influence of politics on the delivery of health care and nursing services will be explored. Focus will be placed on the recognition of social, economic and political determinants of health as well as evidence-based practices and policies that influence outcomes in vulnerable populations. The role of the professional nurse as a change agent in the political area will be examined from a historical to contemporary perspective. Online, Internet, or Web-based Lecture (2 hours)

N441.- Statistical Methods for Research (Online). This is an introductory course 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. The role of statistical analysis, terminology, and the appropriate use of statistical techniques and interpretations of statistical findings are introduced (3 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 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 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 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 hours)
N 459. Introduction to Pain Management. This elective course is designed for the student seeking a deeper understanding of pain, pain medications, and pain management. This course provides the student with in-depth knowledge of pain characteristics, assessment, medications, and alternative treatment modalities utilizing current research findings and evidence-based practice. Emphasis is placed on the use of the nursing process in various aspects of pain management with a specific focus on the opioid epidemic. State and Federal regulatory issues relating to opioids and pain management are also explored. Online, Internet, or Web-based Lecture (2 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 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 demonstrate 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 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 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 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 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 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 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 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 hours)

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 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 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 (1 hour)
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 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 (2 hours)

N 531. Health Information Technology & Patient 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 hours)

N 532. Research 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 hour)

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 hour)

N 534. Portal to Organizational Leadership and Communication. 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 hours)

N 540. Portal to Fiscal & Operations Management. 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 hour)

N 545. Portal to Organizational Leadership & Communication. 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 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 hours)

N 600. Advanced Geriatric Acute Care Diagnostic 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 hours)

N 601-1. Practicum in Adult Geriatric 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 adult gerontology clients with complex critical health problems. The student selects a clinical area of specialization and, through a learning contract developed with faculty, achieves the course objectives. Students are precepted by physicians/nurse practitioners under the direction of faculty. Traditional Clinical Rotation (1 hour)

N 601-2. Practicum in Adult Geriatric 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 faculty, achieves the course objectives. Students are precepted by physicians/nurse practitioners under the direction of the course faculty. Traditional Clinical Rotation (1-3 hours)

N 601-3. Practicum in Adult Geriatric 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 the faculty. Settings include coronary care units, surgical intensive care units, neurology intensive care units, emergency departments. etc. Traditional Clinical Rotation (5 hours)

N 601-4. Practicum in Adult Geriatric 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 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 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 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 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 experiences will be developed by student and faculty. Online, Internet, or Web-based Independent Study (1-3 hours)

N 610. Reproductive Health for Advanced Pract. 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 a nurse practitioner. Emphasis is placed on health promotion, screening, and prevention of illness, and management of problems common in the reproductive health care of men and women. Online, Internet, or Web-based Lecture (3 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 hours)

N 610-3. Childbearing Hlth Care for the Adv 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 a 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 (1 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/Lab (2 hours)

N 612-1. Therapeutic Mgmt of the Pediatric Client. This role course provides the theoretical basis for advanced assessment, diagnostic reasoning, and collaborative management of pediatric health problems in the pediatric primary care setting as a pediatric nurse clinician. The focus of this course is placed on the collaborative management of pediatric clients with selected illnesses from birth to adolescence that are common in primary care as well as well-child health visits. Online, Internet, or Web-based Lecture (2 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 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 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 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 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 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 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 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 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 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 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 hours)

N 620-1. Direct Care Role of the Ns 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 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 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 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 hours)

N 627-6. Clin Mgt of Adults & Older Adults III. This 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. Online, Internet, or Web-based Lecture (2 hours)

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 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 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 older 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 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 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 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 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 hours)

N 633. Research Design & Meth for Adv Nurs Prac. 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 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 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 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 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 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 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 (3 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 (1-2 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 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 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 resources process systems, and human resource outcomes. Online, Internet, or Web-based Lecture (3 hours)

N 646. Organizational Leadership & Communication. This course is designed to increase students’ knowledge and application of concepts, 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 hours)

N 652-1. Finance & Leadership in Health 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 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 primary care setting. Traditional Clinical Rotation (2-4 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 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 group in collaboration with preceptors and other health care professionals. Traditional Clinical Rotation (4 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 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 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 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 nurse clinician 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 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 hours)

N 669. Role Dev & Role Enact Adv Role Prac 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 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 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 hours)

N 682-3. Therapeutic Management 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 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 hours)

N 685-2. Practicum in Primary Care II. This course provides opportunities for the graduate student to develop expertise in the role of 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 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 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 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 hours)

N 686-2. Practicum in Clinical Mgt 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 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 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 (3 hours)

N 687-2. Clinical Mgmt of Indiv w/MH 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 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 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 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 hours)
school of

health related professions

The University of Mississippi
Medical Center
The School of Health Related Professions academic calendar is for all programs.

NOTE: Clinical activities of students vary and may not conform to calendar.

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<td>18</td>
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<td>28</td>
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</tbody>
</table>
HISTORY
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 AND VISION
The mission of the School of Health Related Professions is to equip diverse health professionals to provide quality and innovative health services for our Mississippi communities.

The School of Health Related Professions envisions being the premier educator that will excel in connecting diverse professionals who provide dynamic service delivery, pursue innovative discoveries, and embrace transformational leadership and advocacy for a healthier Mississippi.

PROGRAMS
The School of Health Related Professions serves approximately 500 students in the following programs:

- Certificate in Direct Operational Medical Support – Damon Darsey, MD, Director (Blended Online Program)
- Certificate in Medical Scribe Specialist – Britney Reulet, MS.Ed, Director (Blended Online Program)
- Bachelor of Science in Health Informatics and Information Management – Lisa Morton, PhD, Director (Blended Online Program)
- Bachelor of Science in Health Sciences – Britney Reulet, MS.Ed, Director (Online Program)(program no longer accepting new students)
- Bachelor of Science in Health Systems Administration – Britney Reulet, MS.Ed, Director (Online Program)
- Bachelor of Science in Histotechnology – Renee Wilkins, PhD, Director
- Bachelor of Science in Medical Laboratory Science – La'Toya Richards-Moore, PhD, Director
- Bachelor of Science in Radiologic Sciences – Lee Brown, DHA, Director (Traditional Program); Mike Ketchum, DHA, Coordinator (Online Program)
- Post-Baccalaureate Certificate in Health Informatics – Lisa Morton, PhD, Director (Online Program)
- Post-Baccalaureate Certificate in Leadership and Management – Cynthia Casey, DNP, Director (Online Program)
- Post-Baccalaureate Certificate in Medical Scribe Specialist – Britney Reulet, MS.Ed, Director (Blended Online Program) (program no longer accepting new students)
- Master of Health Informatics and Information Management – Lisa Morton, PhD, Director (Online Program)
- Master of Health Sciences – Cynthia Casey, DNP, Director (Online Program)(program no longer accepting new students)
- Master of Health Systems Administration – Cynthia Casey, DNP, Director (Online Program)
- Master of Science in Magnetic Resonance Imaging – Asher Street, DHA, Director
- Master of Science in Nuclear Medicine Technology – Sherry J. West, DHA, Director
- Doctor of Health Administration – Angela Burrell, PhD, Director
- Doctor of Occupational Therapy – Christy Morgan, PhD, Director
- Doctor of Physical Therapy – Lisa Barnes, PhD, Director

GENERAL ADMISSION INFORMATION AND POLICY
Refer to the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center for information.

Application deadlines are:
Certificate in Direct Operational Medical Support
- Fall Admission May 15
Certificate in Medical Scribe Specialist
- Fall Admission May 15
Bachelor of Science in Health Informatics and Information Management
- Fall Admission May 15
Bachelor of Science in Health Informatics and Information Management (Progression)
- Fall Admission May 15
- Spring Admission October 1
Bachelor of Science in Health Systems Administration
- Summer Admission March 1
- Fall Admission May 15
Bachelor of Science in Histotechnology
Fall Admission April 1

Bachelor of Science in Medical Laboratory Science
Fall Admission April 1

Bachelor of Science in Radiologic Sciences (Traditional)
Fall Admission February 15

Bachelor of Science in Radiologic Sciences (Advanced Standing)
Fall Admission July 1

Post-Baccalaureate Certificate in Health Informatics
Fall Admission May 15

Post-Baccalaureate Certificate in Leadership and Management
Fall Admission May 15

Master of Health Informatics and Information Management
Fall Admission May 15

Master of Health Systems Administration
Summer Admission March 1

Master of Science in Magnetic Resonance Imaging
Summer Admission April 1

Master of Science in Nuclear Medicine Technology
Summer Admission April 1

Doctor of Health Administration
Summer Admission February 1

Doctor of Occupational Therapy
Summer Admission January 15

Doctor of Physical Therapy
Summer Admission November 1

TECHNICAL STANDARDS
Technical standards for the School of Health Related Professions can be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center (item #3). Each department/program at the School of Health Related Professions has additional technical standards posted on their individual departmental websites at http://www.umc.edu/shrp.

TUITION AND REQUIRED FEES
Tuition and fees for the current academic year can be found on the institutional website. Non-resident online students will pay in-state tuition. Tuition is 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.

STUDENT COMPLAINTS
The School of Health Related Professions has a published Student Complaint Policy (Policy E-SHRP-GEN-GEN-PO-00025) in the UMMC Document Center.

SCHOOL TECHNOLOGY/TOOL/SUPPLY REQUIREMENT
Each program at the School of Health Related Professions will have different technology/tool/supply requirements. Information will be provided to students during the onboarding process, in course syllabus documents, and on each individual program's Cost to Attend webpage located at www.umc.edu/shrp.

ACADEMIC REGULATIONS
Refer to the following policies specific to the School of Health Related Professions:
Academic Dishonesty Policy (Policy E-SHRP-GEN-GEN-PO-00001)
Academic Good Standing Policy (Policy E-SHRP-GEN-GEN-PO-00007)
Academic Progress Policy (Policy E-SHRP-GEN-GEN-PO-00018)
Attendance and Registration Policy (Policy E-SHRP-GEN-GEN-PO-00014)
Course Withdrawal Policy (Policy E-SHRP-GEN-GEN-PO-00016)
Degree Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00020)
Forgiveness Policy (Policy E-SHRP-GEN-GEN-PO-00004)
Grading Policy (Policy E-SHRP-GEN-GEN-PO-00015)
Leave of Absence Policy (Policy E-SHRP-GEN-GEN-PO-00021)
Program Withdrawal Policy (Policy E-SHRP-GEN-GEN-PO-00017)
Policy for Appeal of Dismissal (Policy E-SHRP-GEN-GEN-PO-00019)
Remote Proctored Testing Policy (Policy E-SHRP-GEN-GEN-PO-00022)

TRANSFER OF CREDIT
Transfer of Credit information may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013).
PROGRAMS OF STUDY
DIRECT OPERATIONAL MEDICAL SUPPORT (CERTIFICATE) (Blended Online)

Cynthia Casey, DNP, RN, Health Sciences Department Chair
Damon Darsey, MD, Program Director

ABOUT THE PROGRAM

The Direct Operational Medical Support (DOMS) Certificate program is a collaboration between the School of Health Related Professions and the Mississippi Center for Emergency Services’ (MCES) Public Safety Support Division (PSSD), also at UMMC. The program is scheduled to be implemented in the fall term of the 2021-2022 academic year. The new program will be a two (2) semester blended distance education (DE) program whereby course content is delivered online and students attend face-to-face clinical experiences for four (4) days each semester to meet student learning objectives of each course. The program is designed to provide advanced medical training to a specialized group of field medical providers who engage in high risk, remote, operational, or austere medicine. These providers will come from federal, state, and military agencies that provide medical care under these special circumstances.

PROGRAM OBJECTIVES

The primary goal of the Direct Operational Medical Support Certificate program is to provide the community with competent, advanced first responders. Upon completion of the DOMS certificate program, students will be able to:
1. Demonstrate critical thinking through mastery of advanced medical support competencies.
2. Communicate effectively with family, team, and support personnel.

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 Direct Operational Medical Support Certificate program must:
1. Have completed 60 hours of transferrable 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. At minimum, be a trained and credentialed Emergency Medical Technician;
4. Be actively engaged in direct medical support of a public safety response team; and
5. Successfully complete (a grade of “C” or better) the following prerequisite required courses:

<table>
<thead>
<tr>
<th>Prerequisite Courses</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Natural Sciences¹</td>
<td>2</td>
<td>6</td>
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<tr>
<td>Humanities &amp; Fine Arts²</td>
<td>3</td>
<td>9</td>
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<tr>
<td>Social or Behavioral Science³</td>
<td>2</td>
<td>6</td>
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<tr>
<td>Electives</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td><strong>Total Prerequisites</strong></td>
<td><strong>60</strong></td>
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</tbody>
</table>

¹Natural Sciences include courses such as astronomy, anatomy and physiology, biology, chemistry, geology, physics or physical science.
²Humanities and Fine Arts include courses such as art history, dance history, modern languages, music, philosophy, religion or theatre.
³Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.

PROGRAM APPLICATION DEADLINES

All application documents and the application fees must be received by the Office of Enrollment Management by May 15 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

CERTIFICATE

Candidates for the Direct Operational Medical Support certificate must have completed the prescribed curriculum with a cumulative grade point average of 2.00 or better on a 4.00 scale on all coursework at the University of Mississippi Medical Center. Following satisfactory completion of all requirements, students will be awarded the Direct Operational Medical Support certificate from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

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<tr>
<th></th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td></td>
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<tr>
<td>DOM 501 Direct Medical Support Operator I</td>
<td>5</td>
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<tr>
<td><strong>Spring</strong></td>
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<tr>
<td>DOM 503 Director Medical Support Operator II</td>
<td>5</td>
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<td>5</td>
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<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>10</strong></td>
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<tr>
<td>DOM 505 Direct Medical Support Operator III*</td>
<td>3*</td>
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<tr>
<td><strong>Total Possible Hours</strong></td>
<td><strong>13</strong></td>
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</tbody>
</table>

* This course is optional and designed for paramedics who want additional advanced training with four days of face-to-face medical operations clinical experiences. This course, if taken, will be administered during the spring semester.
HEALTH ADMINISTRATION (DHA) (Online)
Angela Burrell, PhD, MSN, RN, Department Chair and Program Director

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 higher education faculty or leadership positions.

The DHA program, offered across nine (9) semesters, is designed for part-time, non-traditional students. Online coursework is the primary method of content delivery with minimal mandatory face-to-face, on-campus sessions.

PROGRAM OBJECTIVES
1. Demonstrate data-driven decision making for resource allocation in health care delivery systems.
2. Relate organizational, management, and leadership theories to the planning, implementation, and assessment of health care delivery systems.
3. Collaborate with diverse health care professionals who work in dynamic environments to address complex organizational challenges.
4. Develop a regulatory, research-based approach to address health care issues impacting providers, payers, and populations.
5. Design and conduct ethical, original, and independent research that contributes to the field of health care administration using constructs from existing and novel approaches to facilitate organizational adaptation.

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
   awarded 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 with five or more years of experience in health care management, health care policy, clinical medical specialty, etc.;
2. Submit official Graduate Record Exam (GRE) scores;
3. Submit current curriculum vitae or resume; and
4. Submit an essay documenting previous health care experience.

A limited number of applicants will be admitted to the Doctor of Health Administration program, with students interviewed and 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 Enrollment Management by February 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 five (5) years. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center.

DEGREE
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 higher on a 4.00 scale. 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 department chair. Following satisfactory completion of all requirements, students will be awarded the Doctor of Health Administration degree from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

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<tr>
<th>COURSE</th>
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<tr>
<td>DHA 700 Leadership Strategies in Health Entities</td>
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<tr>
<td>DHA 706 Foundations of Health Policy</td>
<td>3</td>
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<tr>
<td>DHA 712 Strategic Change Management</td>
<td>3</td>
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<tr>
<td>DHA 718 Current Trends in Accreditation &amp; Licensure</td>
<td>3</td>
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<tr>
<td>DHA 724 Health Care Law, Regulations &amp; Ethics</td>
<td>3</td>
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<tr>
<td>DHA 736 Health Economics</td>
<td>3</td>
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<td>DHA 748 Communications in Health Organizations</td>
<td>3</td>
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<tr>
<td>DHA 754 Fundamentals of Applied Research</td>
<td>3</td>
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<tr>
<td>DHA 756 Quality Processes in Health Organizations</td>
<td>3</td>
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<tr>
<td>DHA 760 Fiscal Responsibility &amp; Accountability</td>
<td>3</td>
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<tr>
<td>DHA 764 Health Systems</td>
<td>3</td>
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<tr>
<td>DHA 767 Current Topics in Health Administration</td>
<td>3</td>
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<tr>
<td>DHA 770 Epidemiology</td>
<td>3</td>
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<tr>
<td>DHA 776 Applied Research Techniques</td>
<td>3</td>
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</table>
HEALTH INFORMATICS AND INFORMATION MANAGEMENT (BS) (Blended Online)
Cynthia Casey, DNP, RN, Health Sciences Department Chair
Lisa Morton, PhD, RHIA, Program Director

ABOUT THE PROGRAM
Health informatics and information management (HIIM) 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.

The baccalaureate degree program in HIIM 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 (AHIMA). The program is designed for part-time, non-traditional students. Online coursework is the primary method of content delivery for the program, with exception of a 160-hour practicum for HI 432 that can be completed at an agreed upon healthcare setting convenient for the student based on their location of residence. Upon completion of the program, students receive a Bachelor of Science degree and are eligible to apply to take the registration examination of AHIMA for the RHIA designation. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the certification examination.

ACCREDITATION STATUS
The Health Informatics and Information Management baccalaureate program is programmatically accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 200 East Randolph Street, Suite 5100, Chicago, IL 60601. CAHIIM’s phone number is (312) 235-3255.

PROGRAM OBJECTIVES
1. Analyze strategies for the management of information.
2. Utilize classification systems, clinical vocabularies, and nomenclatures.
3. Evaluate data dictionaries and data sets for compliance with governance standards.
5. Interpret statistics for health services.
7. Evaluate compliance with regulatory requirements and reimbursement methodologies.
8. Manage components of the revenue cycle.
9. Leverage data-driven performance improvement techniques for decision making.
10. Compare project management methodologies to meet intended healthcare organization outcomes.

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 minimum overall cumulative grade point average of 2.50 on a 4.00 scale;
3. Submit a resume;
4. Submit ACT scores; and
5. Successfully complete (a grade of C or better) the following minimum prerequisite requirements:

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<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>
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<td>6</td>
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<tr>
<td>Social or Behavioral Science&lt;sup&gt;1&lt;/sup&gt;</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Speech</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Humanities and Fine Arts&lt;sup&gt;2&lt;/sup&gt;</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>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>22</td>
</tr>
<tr>
<td><strong>Total Prerequisites</strong></td>
<td><strong>60</strong></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup>Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.

<sup>2</sup>Humanities 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 Enrollment Management by May 15 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements.
Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

**DEGREE**

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 higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Health Informatics and Information Management degree from the University of Mississippi.

**PROFESSIONAL COURSE OF STUDY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>HI 301 Health Information Management Across Healthcare Settings</td>
<td>4</td>
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<tr>
<td>HI 302 Medical Language &amp; Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>HI 303 Legal Foundations in HIIM</td>
<td>3</td>
</tr>
<tr>
<td>HI 312 Data Analytics &amp; Visualization</td>
<td>3</td>
</tr>
<tr>
<td>HI 313 Healthcare Database Design &amp; Administration</td>
<td>3</td>
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<tr>
<td>HI 326 Human Resources Management</td>
<td>3</td>
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<tr>
<td>HI 335 Coding &amp; Classification Systems</td>
<td>4</td>
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<tr>
<td>HI 336 Research Design &amp; Healthcare Statistics</td>
<td>3</td>
</tr>
<tr>
<td>HI 340 Health Information Privacy, Security &amp; Governance</td>
<td>3</td>
</tr>
<tr>
<td>HI 341 Healthcare Standards, Terminologies &amp; Data Sets</td>
<td>3</td>
</tr>
<tr>
<td>HI 342 Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>HI 345 Electronic Health Records &amp; Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HI 418 Management of Health Information Systems</td>
<td>4</td>
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<tr>
<td>HI 420 Biostatistics &amp; Analytical Tools</td>
<td>3</td>
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<tr>
<td>HI 421 Healthcare Compliance and Documentation Improvement</td>
<td>4</td>
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<tr>
<td>HI 424 Revenue Cycle and Reimbursement Management</td>
<td>3</td>
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<tr>
<td>HI 428 Quality Management &amp; Performance Improvement Strategies</td>
<td>3</td>
</tr>
<tr>
<td>HI 431 Healthcare Systems Design &amp; Project Management</td>
<td>4</td>
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<tr>
<td>HI 432 Capstone Experience</td>
<td>2</td>
</tr>
<tr>
<td>HI 442 Seminar II</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>61</strong></td>
</tr>
</tbody>
</table>

**HEALTH INFORMATICS AND INFORMATION MANAGEMENT (BS – Progression) (Blended Online)**

Cynthia Casey, DNP, RN, Health Sciences Department Chair  
Lisa Morton, PhD, RHIA, Program Director

**ABOUT THE PROGRAM**

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 (AHIMA) 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. Upon completion of the program, students are eligible to apply to take the registration examination of AHIMA for the RHIA designation. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the certification examination. The program is designed for part-time, non-traditional students. Online coursework is the primary method of content delivery for the program, with exception of an 80-hour practicum for HI 485 that can be completed at an agreed upon healthcare setting convenient for the student based on their location of residence.

**ACCREDITATION STATUS**

The Health Informatics and Information Management baccalaureate program is programmatically accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 200 East Randolph Street, Suite 5100, Chicago, IL 60601. CAHIIM’s phone number is (312) 235-3255.

**PROGRAM OBJECTIVES**

1. Analyze strategies for the management of information.
2. Utilize classification systems, clinical vocabularies, and nomenclatures.
3. Evaluate data dictionaries and data sets for compliance with governance standards.
5. Interpret statistics for health services.
7. Evaluate compliance with regulatory requirements and reimbursement methodologies.
8. Manage components of the revenue cycle.
9. Leverage data-driven performance improvement techniques for decision making.
10. Compare project management methodologies to meet intended healthcare organization outcomes.
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. Have an minimum overall cumulative grade point average of 2.50 on a 4.00 scale;
3. Submit a resume;
4. Hold a current RHIT credential; 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>Humanities and Fine Arts¹</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Social or Behavioral Science²</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Natural Science³</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Electives</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Total Prerequisites</td>
<td></td>
<td>60</td>
</tr>
</tbody>
</table>

¹Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.
²Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.
³Natural 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 Enrollment Management by May 15 for fall admission, and October 1 for spring admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

DEGREE

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 higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Health Informatics and Information Management 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>HI 301 Health Information Management Across Healthcare Settings</td>
<td>4</td>
</tr>
<tr>
<td>HI 312 Data Analytics &amp; Visualization</td>
<td>3</td>
</tr>
<tr>
<td>HI 313 Healthcare Database Design &amp; Administration</td>
<td>3</td>
</tr>
<tr>
<td>HI 340 Health Information Privacy, Security &amp; Governance</td>
<td>3</td>
</tr>
<tr>
<td>HI 345 Electronic Health Records &amp; Informatics</td>
<td>3</td>
</tr>
<tr>
<td>HI 418 Management of Health Information Systems</td>
<td>4</td>
</tr>
<tr>
<td>HI 420 Biostatistics &amp; Analytical Tools</td>
<td>3</td>
</tr>
<tr>
<td>HI 421 Healthcare Compliance and Documentation Improvement</td>
<td>4</td>
</tr>
<tr>
<td>HI 424 Revenue Cycle and Reimbursement Management</td>
<td>3</td>
</tr>
<tr>
<td>HI 431 Healthcare Systems Design &amp; Project Management</td>
<td>4</td>
</tr>
<tr>
<td>HI 451 Directed Study</td>
<td>3</td>
</tr>
<tr>
<td>HI 485 Health Information Administration Professional Practicum</td>
<td>1</td>
</tr>
<tr>
<td>Total Required Hours</td>
<td>38</td>
</tr>
</tbody>
</table>

*Upon the successful completion of HI 451, students will be awarded an additional 23 semester hours of professional credit based on previous coursework required for certification and professional credential.

HEALTH INFORMATICS (POST-BACCALAUREATE CERTIFICATE) (Online)

Cynthia Casey, DNP, RN, Health Sciences Department Chair
Lisa Morton, PhD, RHIA, Program Director

ABOUT THE PROGRAM

Health informatics (HI) is a dynamic field that blends healthcare information systems with business administration and management. HI professionals innovate healthcare delivery and impact patient outcomes by analyzing, designing, implementing and evaluating information systems. Health informaticians assess the information needs of healthcare providers and consumers, evaluate and enhance clinical processes, and participate in the customization, development, implementation and evaluation of clinical information systems.
The goal of the Post-Baccalaureate Certificate in Health Informatics program is to educate professionals who can contribute to high quality health care through development, implementation, and refinement of clinical information systems. The program will provide 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; decision support systems; and other emerging areas.

This certificate is designed for working healthcare professionals and others seeking training in health informatics. Online coursework is the method of content delivery. This certificate is comprised of courses which are offered in the first year of the health informatics track of the Master of Health Informatics & Information Management (MHIIM) program. Graduates of this certificate program may choose to submit an application to the MHIIM program. Semester credit hours earned in the certificate program with a grade of ‘B’ or higher are transferable to the MHIIM program.

PROGRAM OBJECTIVES
1. Evaluate how healthcare policy-making directly and indirectly impacts the national healthcare delivery system.
2. Assess how information systems are used in healthcare organizations.
3. Take part in the planning, design, selection, implementation, integration, testing, evaluation, and support of health information technologies.
4. Apply project management techniques to ensure efficient workflow and appropriate outcomes.
5. Evaluate current challenges in the health informatics profession.
6. Design a solution to a health information problem by incorporating information science, technology and human factors engineering concepts.

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 Post-Baccalaureate Certificate in Health Informatics program must:
1. Have a bachelor’s degree from a regionally accredited institution of higher learning with an overall GPA of at least 2.75 on a 4.00 scale;
2. Submit a resume; and
3. Submit an essay describing the applicant’s career goals.

PROGRAM APPLICATION DEADLINE
All application documents and the application fees must be received by the Office of Enrollment Management by May 15 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

CERTIFICATE
Candidates for the Health Informatics Post-Baccalaureate Certificate must have completed the prescribed curriculum with an overall cumulative grade point average of 2.50 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Post-Baccalaureate Certificate in Health Informatics from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>HI 602 Health Care Delivery and Policy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HI 603 Perspectives in the Health Information Professions</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Spring</td>
<td>HI 631 Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Summer</td>
<td>HI 634 Development of Electronic Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Total Required Hours</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

HEALTH INFORMATICS AND INFORMATION MANAGEMENT (MHIIM) (Online)

Cynthia Casey, DNP, RN, Health Sciences Department Chair
Lisa Morton, PhD, RHIA, Program Director

ABOUT THE PROGRAM
The Master of Health Informatics and Information Management (MHIIM) 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 (2) tracks wherein students may earn a Master of Health Informatics and Information Management degree. The Health Informatics track (HI 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. The Health Information Management track (HIM 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. Completion of the required coursework in the HIM track allows graduates to test for the Registered Health Information Administrator (RHIA) credential from the American Health Information Management Association (AHIMA) if an additional four (4) hours are completed. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the certification examination.

The Master of Health Informatics and Information Management program is designed for part-time, non-traditional students. Online coursework is the method of content delivery for the HI track. Online coursework is the primary method of content delivery for the HIM track, with exception of an 80-hour practicum for HI 684 that can be completed at an agreed upon healthcare setting convenient for the student based on their location of residence.

ACCREDITATION STATUS
The Health Informatics track of the Master of Health Informatics and Information Management program is programmatically accredited by the Commission on Accreditation for Health Informatics and Information Management Education (CAHIIM), 200 East Randolph Street, Suite 5100, Chicago, IL 60601. CAHIIM’s phone number is (312) 235-3255.

PROGRAM OBJECTIVES
The program prepares graduates to:
1. Evaluate how healthcare policy-making directly and indirectly impacts the national healthcare delivery system.
2. Create data visualizations to analyze real world healthcare problems.
3. Mine and explore healthcare data for knowledge discovery.
4. Create and evaluate relational architectural models.
5. Conduct hospital and vital statistics.
6. Discover personal leadership style using contemporary leadership theory and principles.
7. Take part in the planning, design, selection, implementation, integration, testing, evaluation, and support of health information technologies.
8. Apply project management techniques to ensure efficient workflow and appropriate outcomes.

Additionally, the program has two (2) tracks wherein students may earn a Master of Health Informatics and Information Management degree.

Specifically, graduates of the MHIIM program (HI track) will be able to do the following:
1. Assess how information systems are used in healthcare organizations.
2. Manage health information systems, including systems architecture, database design, business intelligence and analytics.
3. Apply networking principles to achieve system interoperability and health information exchange
4. Manage technical security applications and issues.
5. Use and evaluate data measures to answer epidemiological questions.
6. Develop and use healthcare terminologies, vocabularies and ontologies.
7. Evaluate current challenges in the health informatics profession.
8. Examine sociotechnical aspects of health care computing.
9. Design a solution to a health information problem by incorporating information science, technology and human factors engineering concepts.

Specifically, graduates of the MHIIM program (HIM track) will be able to do the following:
1. Apply knowledge of health data structure, content and acquisition to the management of health care data and electronic health information systems.
2. Compile organization-wide health record documentation guidelines.
5. Apply general principles of management in the administration of health information services.
6. Utilize clinical classification systems to manage processes, policies and procedures to ensure the accuracy of coded data.
7. Determine and manage processes for compliance and reporting of health care data based on knowledge of reimbursement methodologies, regulations and revenue cycle management.
8. Analyze and present data for quality management, utilization management, risk management and other patient care related studies.
9. Apply knowledge of research methods to facilitate biomedical research while ensuring adherence to Institutional Review Board (IRB) processes and policies.
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 a resume;
3. Submit an essay; and
4. Successfully complete (a grade of “C” or better) a course in Human Anatomy and Physiology. This includes Human Anatomy & Physiology I and II (lab not required) or one course that covers anatomy and physiology related to all body systems.

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 Enrollment Management by May 15 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

DEGREE

Candidates for the Master of Health Informatics and Information Management degree must have completed the prescribed curriculum with an overall cumulative grade point average of 3.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Master of Health Informatics and Information Management 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>HI 608 Data Arch, Analytics &amp; Visualization</td>
<td>3</td>
</tr>
<tr>
<td>HI 611 Research Design and Statistics in Health Informatics</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><strong>12</strong></td>
<td><strong>12</strong></td>
</tr>
<tr>
<td><strong>HEALTH INFORMATICS TRACK</strong></td>
<td></td>
</tr>
<tr>
<td>HI 602 Health Care Delivery and Policy</td>
<td>3</td>
</tr>
<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>HI 698 Capstone in Health Informatics</td>
<td>3</td>
</tr>
<tr>
<td><strong>24</strong></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td><strong>HEALTH INFORMATION MANAGEMENT TRACK</strong></td>
<td></td>
</tr>
<tr>
<td>HI 600 Health Information Management</td>
<td>3</td>
</tr>
<tr>
<td>HI 601 Medical Concepts</td>
<td>3</td>
</tr>
<tr>
<td>HI 606 Management of Health Information Services and Systems</td>
<td>3</td>
</tr>
<tr>
<td>HI 610 Topics in Privacy, Security and Legal Aspects of Health Information</td>
<td>3</td>
</tr>
<tr>
<td>HI 613 Health Care Performance Improvement Strategies</td>
<td>3</td>
</tr>
<tr>
<td>HI 615 Health Care Reimbursement and Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>HI 630 Health Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>HI 699 Capstone in Health Informatics and Information Management</td>
<td>3</td>
</tr>
<tr>
<td><strong>24</strong></td>
<td><strong>24</strong></td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>

*Should a student desire to sit for the Registered Health Information Administrator (RHIA) national exam, the student would need to pursue the Health Information Management (HIM) 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:

<table>
<thead>
<tr>
<th>COURSE</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HI 625 Clinical Document Improvement Strategies</td>
<td>1</td>
</tr>
<tr>
<td>HI 629 Clinical Classification Systems</td>
<td>2</td>
</tr>
<tr>
<td>HI 684 Management Capstone</td>
<td>1</td>
</tr>
<tr>
<td><strong>4</strong></td>
<td></td>
</tr>
</tbody>
</table>
HEALTH SCIENCES (BS) (Online)
Cynthia Casey, DNP, RN, Health Sciences Department Chair
Britney Reulet, MS.Ed, CST, Program Director

ABOUT THE PROGRAM
*The Bachelor of Science in Health Sciences program will transition to the Bachelor of Science in Health Systems Administration program beginning summer 2021. We are no longer accepting applicants for the Bachelor of Science in Health Sciences program. For updated program information, please reference the Bachelor of Science in Health Systems Administration section of this Bulletin.

The mission of the Bachelor of Science in Health Sciences program is to educate health professionals and provide students with a firm foundation for understanding the role of health care in the contemporary society. The Bachelor of Science in Health Sciences program provides exposure to expanded roles in healthcare management and community education. The program prepares clinical and non-clinical health professionals, leaders, managers, and educators to enter the workforce. The program also prepares students for and promotes post-baccalaureate education in clinical and non-clinical degree areas. The Bachelor of Science in Health Sciences program is a degree-completion program with three (3) degree pathways.

The Track I Health Care Practitioner curriculum is designed to enable licensed, registered, or certified health care practitioners who are graduates of a regionally accredited associate degree health care program to prepare for a management career within their area of discipline in health care systems or organizations. Degree content focuses on management of the healthcare delivery environment. The Track I Health Care Practitioner student earns 60 hours of academic credit through the successful completion of academic courses and professional, non-traditional academic credit.

The Track II Health Care Operations curriculum is designed to prepare students for a career in health care with a focus on management and leadership principles. The Track II Health Care Operations student earns 60 hours of academic credit through the successful completion of academic courses.

The Track III Health Care Generalist curriculum is designed to enable health care support personnel, in health science centers and other healthcare environments, to prepare for a management career in administrative functions within health systems or organizations. Degree content focuses on administrative functions necessary to maintain and operate successful healthcare centers or organizations. The Track III Health Care Generalist student will earn 30 hours of academic credit through the successful completion of academic courses. To be considered for the healthcare generalist track, the student must meet the requirements of the Complete 2 Compete (C2C) Initiative. Please visit http://www.msc2c.org/ to see if you qualify.

The program is designed for, but not limited to, part-time, non-traditional students. Online instruction is the method of content delivery.

PROGRAM OBJECTIVES
1. Analyze present health care systems in relation to the past and implications for future health care delivery.
2. Examine the impact of social, economic, legal and political factors on the health care system.
3. Communicate with conciseness and clarity using the standard conventions of written English, public speaking, and medical terminology.
4. Apply research skills to gather, assess, and communicate relevant information and reference material.
5. Apply leadership, management, and learning theories to the planning, implementation, and assessment of health care delivery.
6. Apply critical thinking to analyze information in order to reach supported conclusions.

PROGRAM ADMISSION REQUIREMENTS
*The Bachelor of Science in Health Sciences program will transition to the Bachelor of Health Systems Administration program beginning summer 2021. We are no longer accepting applicants for the Bachelor of Science in Health Sciences program. For updated program information, please reference the Bachelor of Science in Health Systems Administration section of this Bulletin.

DEGREE
Candidates for the Health Sciences degree must have completed the prescribed curriculum with a cumulative grade point average of 2.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Health Sciences degree from the University of Mississippi.

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 303 Writing for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HS 310 Principles of Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 311 Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>HS 319 Interdisciplinary Health Studies</td>
<td>3</td>
</tr>
<tr>
<td>HS 330 Introduction to Statistics</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 Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 430 Strategic Decision Making in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 455 Capstone Seminar</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>
Upon the successful completion of HS 455, students will be awarded up to 30 semester hours of professional credit based on previous coursework required for certification and professional credential.

**PROFESSIONAL COURSE OF STUDY (Track II – Health Care Operations)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 300 Survey 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 Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 308 Foundations of Disease and Health</td>
<td>3</td>
</tr>
<tr>
<td>HS 310 Principles of Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 311 Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>HS 313 Health Education in Healthcare Systems</td>
<td>3</td>
</tr>
<tr>
<td>HS 319 Interdisciplinary Health Studies</td>
<td>3</td>
</tr>
<tr>
<td>HS 320 The Role of Quality Improvement in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 326 Human Resources in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 330 Introduction of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>HS 401 Introduction to Global Health</td>
<td>3</td>
</tr>
<tr>
<td>HS 408 Organizational Behavior in Healthcare</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 423 Health Promotion</td>
<td>3</td>
</tr>
<tr>
<td>HS 425 Health Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>HS 427 Finance and Reimbursement in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 430 Strategic Decision Making in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 455 Capstone Seminar</td>
<td>3</td>
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<tr>
<td><strong>Total Required Hours</strong></td>
<td>60</td>
</tr>
</tbody>
</table>

**PROFESSIONAL COURSE OF STUDY (Track III – Health Care Generalist)**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS 303 Writing for Healthcare Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HS 310 Principles of Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 311 Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>HS 319 Interdisciplinary Health Studies</td>
<td>3</td>
</tr>
<tr>
<td>HS 330 Introduction to Statistics</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 Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 430 Strategic Decision Making in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 455 Capstone Seminar</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td>30</td>
</tr>
</tbody>
</table>

**HEALTH SYSTEMS ADMINISTRATION (BS) (Online)**

Cynthia Casey, DNP, RN, Health Sciences Department Chair
Britney Reulet, MS.Ed, CST, Program Director

**ABOUT THE PROGRAM**

*The Bachelor of Science in Health Sciences program will transition to the Bachelor of Science in Health Systems Administration beginning summer 2021.

The mission of the Bachelor of Science in Health Systems Administration program is to educate health professionals and provide students with a firm foundation for understanding the role of health care in the contemporary society. The Bachelor of Science in Health Systems Administration program provides exposure to expanded roles in healthcare management and community education. The program prepares clinical and non-clinical health professionals, leaders, managers, and educators to enter the workforce. The program also prepares students for and promotes post-baccalaureate education in clinical and non-clinical degree areas. The Bachelor of Science in Health Systems Administration program is a degree-completion program with three (3) degree pathways.

The Track I Health Care Practitioner curriculum is designed to enable licensed, registered, or certified health care practitioners who are graduates of a regionally accredited associate degree health care program to prepare for a management career within their area of discipline in health care systems or organizations. Degree content focuses on management of the healthcare delivery environment. The Track I Health Care Practitioner student earns 60 hours of academic credit through the successful completion of academic courses and professional, non-traditional academic credit.

The Track II Health Care Operations curriculum is designed to prepare students for a career in health care with a focus on management and leadership principles. The Track II Health Care Operations student earns 60 hours of academic credit through the successful completion of academic courses.
The Track III Health Care Generalist curriculum is designed to enable health care support personnel, in health science centers and other healthcare environments, to prepare for a management career in administrative functions within health systems or organizations. Degree content focuses on administrative functions necessary to maintain and operate successful healthcare centers or organizations. The Track III Health Care Generalist student will earn 30 hours of academic credit through the successful completion of academic courses. To be considered for the healthcare generalist track, the student must meet the requirements of the Complete 2 Compete (C2C) Initiative. Please visit [http://www.msc2c.org/](http://www.msc2c.org/) to see if you qualify.

The program is designed for, but not limited to, part-time, non-traditional students. Online instruction is the method of content delivery.

**PROGRAM OBJECTIVES**

1. Analyze present health care systems in relation to the past and implications for future health care delivery.
2. Examine the impact of social, economic, legal and political factors on the health care system.
3. Communicate with conciseness and clarity using the standard conventions of written English, public speaking, and medical terminology.
4. Apply research skills to gather, assess, and communicate relevant information and reference material.
5. Apply leadership, management, and learning theories to the planning, implementation, and assessment of health care delivery.
6. Apply critical thinking to analyze information in order to reach supported conclusions.

**PROGRAM ADMISSION REQUIREMENTS**

**Track I and Track II**

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 Bachelor of Science in Health Systems Administration 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 resume;
3. Submit an essay;
4. Submit a copy of a current license, registration, or certification in a health care field (Track I applicants only);
5. Have a minimum overall cumulative grade point average of 2.00 on 4.00 scale; and
6. 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 Science³</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 an interview. An applicant’s certification, license, registration and transcript(s) will be reviewed to determine the appropriate education track eligibility.

**PROGRAM ADMISSION REQUIREMENTS**

**Track III**

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 Bachelor of Science in Health Systems Administration program (Track III Health Care Generalist) must:

1. Meet the requirements of the Complete 2 Compete (C2C) Initiative. Please visit [http://www.msc2c.org/](http://www.msc2c.org/) to see if you qualify;
2. Have a minimum of 90 semester hours of academic credit from a regionally accredited institution of higher learning;
3. Submit a resume;
4. Submit an essay;
5. Have a minimum overall cumulative grade point average of 2.00 on 4.00 scale;
6. Have not attended a postsecondary institution within 24 consecutive months of application;
7. Not have already earned a postsecondary baccalaureate degree; and
8. 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>
</tbody>
</table>

---

[http://www.msc2c.org/](http://www.msc2c.org/)
Humanities and Fine Arts² 3 9
Natural Science³ 2 6
Academic Electives 60
**Total Prerequisites** 90

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.

*A letter grade of “D” and some technical credits may be considered for applicants in the C2C Healthcare Generalist Track as outlined by IHL policy 521.A2.

The program director and the dean must approve any exceptions to the requirements listed above. All applicants are subject to an interview.

**PROGRAM APPLICATION DEADLINE**

All application documents and the application fees must be received by the Office of Enrollment Management by March 1 for summer admission and May 15 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy ([Policy E-SHRP-GEN-GEN-PO-00013](#)) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

**DEGREE**

Candidates for the Health Systems Administration degree must have completed the prescribed curriculum with a cumulative grade point average of 2.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Health Systems Administration degree from the University of Mississippi.

<table>
<thead>
<tr>
<th><strong>PROFESSIONAL COURSE OF STUDY (Track I – Health Care Practitioner)</strong></th>
<th><strong>Semester Hours</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BHSA 303 Writing for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 310 Principles of Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 311 Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 319 Interdisciplinary Health Studies</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 330 Introduction to Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 409 Introduction to Policy, Advocacy &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 420 Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 427 Finance and Reimbursement in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 430 Strategic Decision Making in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 455 Capstone Seminar</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>30</strong></td>
</tr>
</tbody>
</table>

*Upon the successful completion of BHSA 455, students will be awarded up to 30 semester hours of professional credit based on previous coursework required for certification and professional credential.

<table>
<thead>
<tr>
<th><strong>PROFESSIONAL COURSE OF STUDY (Track II – Health Care Operations)</strong></th>
<th><strong>Semester Hours</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>BHSA 300 Survey of Health Care Delivery</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 303 Writing for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 305 Cultural Competency in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 308 Foundations of Disease and Health</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 310 Principles of Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 311 Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 313 Health Education in Healthcare Systems</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 319 Interdisciplinary Health Studies</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 320 The Role of Quality Improvement in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 326 Human Resources in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 330 Introduction of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 401 Introduction to Global Health</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 408 Organizational Behavior in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 409 Introduction to Policy, Advocacy &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 420 Leadership Development</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 423 Health Promotion</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 425 Health Behaviors</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 427 Finance and Reimbursement in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 430 Strategic Decision Making in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>BHSA 455 Capstone Seminar</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>
HEALTH SCIENCES (MHS) (Online)
Cynthia Casey, DNP, RN, Health Sciences Department Chair and Program Director

ABOUT THE PROGRAM
*The Master of Health Sciences program will transition to the Master of Health Systems Administration program beginning summer 2021. We are no longer accepting applicants for the Master of Health Sciences program. For updated program information, please reference the Master of Health Systems Administration section of this Bulletin.

The Master of Health Sciences (MHS) 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. Graduate students will gain advanced level knowledge and demonstrate forward-thinking, decision-making skills.

The program is designed for part-time, non-traditional students. Online coursework is the primary method of content delivery with minimal mandatory face-to-face, on-campus sessions.

PROGRAM OBJECTIVES
1. Demonstrate proficiency in the use of multiple methods of communication to convey complex thoughts and strategies.
2. Utilize statistical data to support decision making in the healthcare delivery system.
3. Use research findings to explain and direct the resolution of practice related issues and challenges.
4. Apply leadership principles in managing people and programs.
5. Analyze issues and challenges, including new and emerging trends.
6. Use knowledge of health care policy and delivery systems to guide professional practice.
7. Promote interprofessional, evidence based initiatives within healthcare systems to improve the safety and quality of healthcare.
8. Apply legal/ethical concepts in the areas of healthcare delivery and research.
9. Implement specialized knowledge and skills in an advanced practice role.
10. Manage healthcare delivery systems, including financing, resources, and strategic planning.

PROGRAM ADMISSION REQUIREMENTS
*The Master of Health Sciences program will transition to the Master of Health Systems Administration program beginning summer 2021. We are no longer accepting applicants for the Master of Health Sciences program. For updated program information, please reference the Master of Health Systems Administration section of this Bulletin.

DEGREE
Candidates for the Master of Health Sciences degree must have completed the prescribed curriculum with a cumulative grade point average of 3.00 or higher on a 4.00 scale. 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 601 Strategic Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 602 Legal/Ethical Concepts in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 604 Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>HS 612 Data Analysis and Outcomes Assessment</td>
<td>3</td>
</tr>
<tr>
<td>HS 616 Healthcare 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 651 Quality and Risk Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>HS 652 Program Development and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>HS 653 Research for Health Professionals</td>
<td>3</td>
</tr>
<tr>
<td>HS 654 Contemporary Issues in Healthcare Finance</td>
<td>3</td>
</tr>
<tr>
<td>HS 699 Integrated Healthcare Leadership</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Required Hours</strong></td>
<td><strong>36</strong></td>
</tr>
</tbody>
</table>
HEALTH SYSTEMS ADMINISTRATION (MHSA) (Online)

Cynthia Casey, DNP, RN, Health Sciences Department Chair and Program Director

ABOUT THE PROGRAM

*The Master of Health Sciences program will transition to the Master of Health Systems Administration program beginning summer 2021.

The Master of Health Systems Administration 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. Graduate students will gain advanced level knowledge and demonstrate forward-thinking, decision-making skills.

The program is designed for part-time, non-traditional students. Online coursework is the primary method of content delivery with minimal mandatory face-to-face, on-campus sessions.

PROGRAM OBJECTIVES

1. Demonstrate proficiency in the use of multiple methods of communication to convey complex thoughts and strategies.
2. Utilize statistical data to support decision making in the healthcare delivery system.
3. Use research findings to explain and direct the resolution of practice related issues and challenges.
4. Apply leadership principles in managing people and programs.
5. Analyze issues and challenges, including new and emerging trends.
6. Use knowledge of health care policy and delivery systems to guide professional practice.
7. Promote interprofessional, evidence based initiatives within healthcare systems to improve the safety and quality of healthcare.
8. Apply legal/ethical concepts in the areas of healthcare delivery and research.
9. Implement specialized knowledge and skills in an advanced practice role.
10. Manage healthcare delivery systems, including financing, resources, and strategic planning.

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 Systems Administration 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;
2. Submit a resume; 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 Systems Administration program during each admission cycle. Students will be selected and interviewed 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 Enrollment Management by March 1 for summer admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

DEGREE

Candidates for the Master of Health Systems Administration degree must have completed the prescribed curriculum with a cumulative grade point average of 3.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Master of Health Systems Administration degree from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

| COURSE |
|---|---|
| MHSA 601 Strategic Management in Healthcare | 3 |
| MHSA 602 Legal/Ethical Concepts in Healthcare | 3 |
| MHSA 604 Organizational Behavior | 3 |
| MHSA 612 Data Analysis and Outcomes Assessment | 3 |
| MHSA 616 Healthcare Administration | 3 |
| MHSA 630 Health Policy and Society | 3 |
| MHSA 650 Resource Management | 3 |
| MHSA 651 Quality and Risk Management in Healthcare | 3 |
| MHSA 652 Program Development and Implementation | 3 |
| MHSA 653 Research for Health Professionals | 3 |
| MHSA 654 Contemporary Issues in Healthcare Finance | 3 |
| MHSA 699 Integrated Healthcare Leadership | 3 |
| Total Required Hours | 36 |
HISTOTECHNOLOGY (BS)
Kristi Moore, PhD, RT (R) (CT), ARRT, Clinical and Diagnostic Sciences Department Chair
Renee Wilkins, PhD, MLS(ASCP)CM, Program Director
James S. Neill, MD, Medical Director
Bevilyn Perkins, MS, HTL(ASCP)CM, Education Coordinator

ABOUT THE PROGRAM
The histotechnologist (HTL) is a health care professional who processes human and animal tissues to be observed by various forms of microscopy. Following proper tissue preparation, a histotechnologist stains tissue for routine and special identification of bacteria, fungi, cancer, and tissue structure abnormalities for pathological diagnosis. The histotechnologist performs standardized laboratory skills that include tissue fixation, processing, embedding, sectioning, and staining. Employment for the majority of histotechnologists are in anatomic pathology laboratories within hospitals and clinics; however, career opportunities also exist in pharmaceutical, veterinary, biomedical, and academic laboratories.

The histotechnology program is a five (5) semester, entry-level program incorporated within the Medical Laboratory Science Department. Histotechnology students engage in common core courses with Medical Laboratory Science students. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Histotechnology from the University of Mississippi and are eligible to apply to take the HTL(ASCP) national certification examination to become certified as a histotechnologist. Some states may require licensure in order to practice; however, state licenses are usually based on the results of the HTL(ASCP) certification examination. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the HTL(ASCP) certification examination or attain state licensure.

ACCREDITATION STATUS
The Bachelor of Science in Histotechnology program is programmatically 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.

PROGRAM OBJECTIVES
1. Prepare graduates who demonstrate entry-level competencies to be able to enter the workforce as a histotechnologist.
2. Provide training and learning experiences in the preparation of microscopic, stained specimens for the diagnosis and prognosis of disease by a pathologist.
3. Develop student’s ability to think critically in the didactic and clinical setting.
4. Prepare students to be professional and ethical members of a healthcare team.

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 Histotechnology 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 deadline;
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>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Social or Behavioral Science</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Humanities and Fine Arts</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>Microbiology with Lab</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>General Chemistry with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Electives</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Prerequisites</strong></td>
<td><strong>60</strong></td>
<td></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, genetics, embryology and zoology. Science survey courses and science courses designed for non-majors are not acceptable for transfer credit.
4Chemistry courses such as inorganic, organic, and biochemistry are acceptable. Science survey courses and science courses designed for non-majors are not acceptable for transfer credit.
5Electives should be selected from a broad range of academic courses which may include immunology, 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 Enrollment Management by April 1 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PQ-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

**DEGREE**

Candidates for the Histotechnology degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or higher on a 4.00 scale. Due to the variability of available clinical sites, completion of the required curriculum may be extended beyond the minimum of 22 months. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Histotechnology degree from the University of Mississippi.

**PROFESSIONAL COURSE OF STUDY**

**JUNIOR YEAR**

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTL 300 Introduction to Histology</td>
<td>3</td>
</tr>
<tr>
<td>HTL 305 Basic Clinical Biochemistry</td>
<td>2</td>
</tr>
<tr>
<td>HTL 310 Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>MLS 311 Basic and Clinical Immunology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 313 Clinical Bacteriology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 327 Laboratory Operations</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTL 320 Histotechniques I</td>
<td>4</td>
</tr>
<tr>
<td>HTL 330 Staining Techniques I</td>
<td>3</td>
</tr>
<tr>
<td>MLS 312 Essentials of Hematology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 340 General Pathology</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>12</strong></td>
</tr>
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</table>

**SENIOR YEAR**

<table>
<thead>
<tr>
<th>Summer</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTL 410 Ethics and Professional Issues</td>
<td>1</td>
</tr>
<tr>
<td>MLS 323 Mycology, Parasitology and Virology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 405 Introduction to Molecular Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td>MLS 416 Research Design and Statistics</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTL 420 Histotechniques II</td>
<td>4</td>
</tr>
<tr>
<td>HTL 425 Seminar</td>
<td>1</td>
</tr>
<tr>
<td>HTL 430 Staining Techniques II</td>
<td>3</td>
</tr>
<tr>
<td>MLS 310 Body Fluid Analysis</td>
<td>3</td>
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<td>MLS 417 Principles of Management and Education in CLS</td>
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<td><strong>Total</strong></td>
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</table>

<table>
<thead>
<tr>
<th>Spring</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTL 435 Histotechnology Capstone</td>
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<tr>
<td>HTL 440 Histotechnology Practicum I</td>
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<tr>
<td>HTL 445 Histotechnology Practicum II</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

| Total Required Hours | **61** |

**CLINICAL FACILITIES**

Clinical educational experiences in Histotechnology are provided in conjunction with the following health care facilities:

- Delta Pathology – Shreveport, LA
- Methodist LeBonheur Healthcare – Memphis, TN
- University of Mississippi Medical Center – Jackson, MS

**LEADERSHIP AND MANAGEMENT (POST-BACCALAUREATE CERTIFICATE) (Online)**

Cynthia Casey, DNP, RN Health Sciences Department Chair and Program Director

**ABOUT THE PROGRAM**

The Leadership and Management Post-Baccalaureate Certificate program is designed for leaders who desire to expand their leadership potential and be leaders and managers within different tiers of an organization. The program will provide the student with knowledge and skills in leading, as well as principles of managing complex health systems based on current best practices. The certificate is comprised of courses which are offered in the Master of Health Systems Administration (MHSA) program. Graduates of the certificate program may choose to submit an application to the MHSA program. Semester credit hours earned in the certificate program with a grade of “B” or higher are transferable to the MHSA Program.
The program, which can be completed in four (4) semesters, is designed for part-time, non-traditional students. Online instruction is the method of content delivery.

**PROGRAM OBJECTIVES**
1. Demonstrate proficiency in the use of multiple methods of communication to convey complex thoughts and strategies.
2. Apply leadership principles in managing people and programs.
3. Analyze issues and challenges, including new and emerging trends.
4. Implement specialized knowledge and skills in an advanced practice role.
5. Manage healthcare delivery systems, including financing, resources, and strategic planning.

**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 Leadership and Management Post-Baccalaureate Certificate program must:
1. Have a bachelor’s degree from a regionally accredited institution of higher learning with a GPA of at least 2.75 on a 4.0 scale:
2. Submit a resume; and
3. Submit a letter of recommendation from a current supervisor or previous instructor.

**PROGRAM APPLICATION DEADLINES**
All application documents and the application fees must be received by the Office of Enrollment Management by May 15 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

**CERTIFICATE**
Candidates for the Leadership and Management Post-Baccalaureate Certificate must have completed the prescribed curriculum with an overall cumulative grade point average of 2.5 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Post-Baccalaureate Certificate in Leadership and Management from the University of Mississippi.

**PROFESSIONAL COURSE OF STUDY**

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Hours</th>
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<tr>
<td>Fall</td>
<td>MHSA 601 Strategic Management in Healthcare</td>
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</tr>
<tr>
<td>Spring</td>
<td>MHSA 616 Healthcare Administration</td>
<td>3</td>
</tr>
<tr>
<td></td>
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<td>3</td>
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<tr>
<td>Summer</td>
<td>MHSA 650 Resource Management</td>
<td>3</td>
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<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Fall</td>
<td>MHSA 651 Quality Improvement and Risk Management in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total Required Hours</strong></td>
<td><strong>12</strong></td>
</tr>
</tbody>
</table>

**MAGNETIC RESONANCE IMAGING (MS)**
Kristi Moore, PhD, RT (R) (CT) ARRT, Clinical and Diagnostic Sciences Department Chair
Asher Street, DHA, RT (R) (MR) ARRT, MRSO, Program Director & Clinical Coordinator

**ABOUT THE PROGRAM**
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 Master of Science in Magnetic Resonance Imaging (MSMRI) program is a full-time program consisting of didactic and clinical educational requirements completed within one (1) year. Students who satisfactorily complete all MSMRI program requirements 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 misdemeanor or felony conviction may affect a graduate’s ability to sit for the ARRT certification examination or attain state licensure.

**ACCREDITATION STATUS**
The Master of Science in Magnetic Resonance Imaging program is programmatically accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), mail@jrcert.org, 20 N. Wacker Drive, Suite 2850, Chicago, IL, 60606. JRCERT’s phone number is (312) 704-5300.
PROGRAM OBJECTIVES

Clinical Performance and Competence
1. Demonstrate procedural skill development to competently perform diagnostic imaging procedures.
2. Demonstrate the knowledge of safety and screening procedures to provide a safe imaging environment for the patient, themselves, and other healthcare professionals.

Critical Thinking and Problem Solving Skills in the Clinical Setting
3. Determine the need to modify standard procedures and technical factors to accommodate patient conditions and other variables.
4. Identify parameter modifications based on exam variables.

Effective Communication Skills
5. Communicate scientific research effectively.
6. Communicate effectively with patients and healthcare professionals.

Professional Growth and Development
7. Demonstrate their professional responsibilities.
8. Foster professional relationships.

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 Magnetic Resonance Imaging program 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 scores on the Graduate Record Exam (GRE) that includes verbal, quantitative, and analytical writing scores;
6. Provide three (3) completed recommendation forms:
   • 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.

*Documentation of current ARRT (R) registration is required by the first day of the summer semester.

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 Enrollment Management by April 1 for summer admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

DEGREE

Candidates for the Master of Science in Magnetic Resonance Imaging degree must have completed the prescribed curriculum with a cumulative grade point average of 3.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Master of Science in Magnetic Resonance Imaging 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>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>3</td>
</tr>
<tr>
<td>MRI 670 MRI Leadership, Education, &amp; Management</td>
<td>2</td>
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<tr>
<td>MRI 690 Magnetic Resonance Imaging Research I</td>
<td>2</td>
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<td>MRI 699 Magnetic Resonance Imaging Research II</td>
<td>3</td>
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<tr>
<td>Total Required Program Hours</td>
<td>36</td>
</tr>
</tbody>
</table>
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
- Mississippi Baptist Medical Center – 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)
Kristi Moore, PhD, RT (R) (CT), ARRT, Clinical and Diagnostic Sciences Department Chair
La'Toya Richards-Moore, PhD, MLS(ASCP)CM, Program Director
Lisa M. Stempak, MD, Medical Director

ABOUT THE PROGRAM
The medical laboratory scientist is a highly skilled scientist who functions in multiple roles, to 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.

The baccalaureate degree program in Medical Laboratory Science (MLS) is a five (5) semester, entry-level program for students who want to become certified as a medical laboratory scientist or molecular biologist. Upon completion of the program, students receive a Bachelor of Science degree and are eligible to apply to take national certification examinations. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the certification examination or attain state licensure.

ACCREDITATION STATUS
The Medical Laboratory Science program is programmatically 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.

PROGRAM OBJECTIVES
1. Prepare graduates to perform entry-level competencies with laboratory skills, knowledge, and attitudes to increase the number of qualified and credentialed medical laboratory scientists in the state.
2. Provide continuing education programs and advanced graduate studies for continued professional growth.
3. Construct research and research methods for the continued refinement and improvement of medical laboratory services provided by a variety of healthcare facilities, agencies, hospitals, and institutions.
4. Incorporate habits for life-long learning into education, management, and supervision for the medical laboratory science profession.
5. Generate appropriate professionalism and team player synergy for the contemporary health care team.

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 deadline;
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>
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</thead>
<tbody>
<tr>
<td>English Composition</td>
<td>2</td>
<td>6</td>
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<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>
</tbody>
</table>
Microbiology with Lab 1 4
Biological Sciences 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 Enrollment Management by April 1 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

DEGREE
Candidates for the Medical Laboratory Science degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Medical Laboratory Science 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 24 months.

PROFESSIONAL COURSE OF STUDY
JUNIOR YEAR
Fall
<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>MLS 311 Basic and Clinical Immunology</td>
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<tr>
<td>MLS 313 Clinical Bacteriology</td>
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<tr>
<td>MLS 314 Essentials of Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MLS 315 Phlebotomy</td>
<td>2</td>
</tr>
<tr>
<td>MLS 327 Laboratory Operations</td>
<td>2</td>
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Spring
<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>MLS 312 Essentials of Hematology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 324 Clinical Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MLS 325 Immunohematology I</td>
<td>3</td>
</tr>
<tr>
<td>MLS 332 Diagnostic Hemostasis</td>
<td>1</td>
</tr>
<tr>
<td>MLS 340 General Pathology</td>
<td>2</td>
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<td></td>
<td>12</td>
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SENIOR YEAR
Summer
<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MLS 322 Clinical Hematology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 323 Mycology, Parasitology and Virology</td>
<td>3</td>
</tr>
<tr>
<td>MLS 405 Introduction to Molecular Diagnostics</td>
<td>3</td>
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<tr>
<td>MLS 416 Research Design and Statistics</td>
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Fall
<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MLS 310 Body Fluid Analysis</td>
<td>3</td>
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<tr>
<td>MLS 326 Clinical Simulation</td>
<td>3</td>
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<td>MLS 413 Diagnostic Microbiology</td>
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<td>MLS 335 Immunohematology II</td>
<td>3</td>
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<tr>
<td>MLS 417 Principles of Management and Education in CLS</td>
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<tr>
<td>MLS 429 Clinical Correlations</td>
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Spring
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MLS 422 Hematology Practicum</td>
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<tr>
<td>MLS 423 Clinical Microbiology Practicum</td>
<td>3</td>
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<tr>
<td>MLS 424 Clinical Chemistry Practicum</td>
<td>3</td>
</tr>
<tr>
<td>MLS 425 Immunohematology Practicum</td>
<td>3</td>
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<tr>
<td></td>
<td>12</td>
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</tbody>
</table>

Total Required Hours 64
CLINICAL FACILITIES
Clinical educational experiences in medical laboratory science are provided in conjunction with the following health care facilities:

- American Esoteric Laboratories – Memphis, TN
- Baptist Memorial Hospital-DeSoto – Southaven
- Baptist Memorial Hospital – Golden Triangle – Columbus
- Baptist Memorial Hospital – Union County – New Albany
- Magnolia Regional Health System – Corinth
- Merit Health Central – Jackson
- Merit Health River Oaks – Flowood
- Merit Health River Region – Vicksburg
- Merit Health Woman’s Hospital – Flowood
- Methodist LeBonheur Health System – Memphis, TN
- Mississippi State Hospital – Pearl
- North Sunflower Medical Center – Ruleville
- South Central Regional Medical Center – Laurel
- University of Mississippi Medical Center – Grenada
- University of Mississippi Medical Center – Jackson

MEDICAL SCRIBE SPECIALIST (POST-BACCALAUREATE CERTIFICATE) (Blended Online)

Cynthia Casey, DNP, RN Health Sciences Department Chair
Britney Reulet, MS.Ed, CST, Program Director

ABOUT THE PROGRAM
*The Medical Scribe Specialist Post-Baccalaureate Certificate program will transition to the Medical Scribe Specialist Certificate program beginning summer 2021. We are no longer accepting applicants for Post-Baccalaureate Certificate program. For updated program information, please reference the Medical Scribe Specialist Certificate section of this Bulletin.

A Medical Scribe Specialist (MSS) is a member of the health care team who, under the direction of a licensed health care clinician, assists with point-of-care clinical documentation, patient tracking, and obtaining prior clinical records. Medical scribe specialists are used to maximize workflow efficiency and productivity of clinical care, enable real-time clinical documentation, create and maintain comprehensive and accurate electronic health records, and obtain prior health information including patient history and lab results for the benefit of clinicians, health care staff, and patients. Most medical scribe specialists work in specialty clinics, emergency departments, and other hospital settings. Upon completion of the program, students will be eligible to take the Certified Medical Scribe Specialist (CMSS) examination offered by the American College of Medical Scribe Specialists (ACMSS).

This three (3) semester program is designed for part-time students. With the exception of a face-to-face clinical practicum, online instruction is the method of content delivery.

PROGRAM OBJECTIVES
1. Demonstrate the use of electronic health records in varied health care settings.
2. Utilize medical and pharmacological terminology effectively in documentation.
3. Apply basic coding and billing in the electronic health record.

CERTIFICATE
Candidates for the Post-Baccalaureate Medical Scribe Specialist certificate must have completed the prescribed curriculum with a cumulative grade point average of 2.00 or better on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Post-Baccalaureate Medical Scribe Specialist Certificate from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer</td>
<td>MSS 501 Medical &amp; Pharmacological Terminology</td>
<td>2</td>
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<tr>
<td></td>
<td>MSS 505 Body Systems and Diagnostics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Fall</td>
<td>MSS 510 Applications of Electronic Health and Medical Records</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MSS 515 Principles of Billing, Coding and Reimbursement</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MSS 520 Legal Guidelines &amp; Ethics for Healthcare Professionals</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Spring</td>
<td>MSS 525 Quality Improvement and Workflow</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MSS 530 Applied Practicum</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Total Required Hours</td>
<td>18</td>
</tr>
</tbody>
</table>
MEDICAL SCRIBE SPECIALIST (CERTIFICATE) (Blended Online)

Cynthia Casey, DNP, RN Health Sciences Department Chair
Britney Reulet, MS.Ed, CST, Program Director

ABOUT THE PROGRAM
*The Medical Scribe Specialist Post Baccalaureate program will transition to the Medical Scribe Specialist Certificate program beginning fall 2021.

A Medical Scribe Specialist (MSS) is a member of the health care team who, under the direction of a licensed health care clinician, assists with point-of-care clinical documentation, patient tracking, and obtaining prior clinical records. Medical scribe specialists are used to maximize workflow efficiency and productivity of clinical care, enable real-time clinical documentation, create and maintain comprehensive and accurate electronic health records, and obtain prior health information including patient history and lab results for the benefit of clinicians, health care staff, and patients. Most medical scribe specialists work in specialty clinics, emergency departments, and other hospital settings. Upon completion of the program, students will be eligible to take the Certified Medical Scribe Specialist (CMSS) examination offered by the American College of Medical Scribe Specialists (ACMSS).

This two (2) semester program is designed for part-time students. With the exception of a face-to-face clinical practicum, online instruction is the method of content delivery.

PROGRAM OBJECTIVES
1. Demonstrate the use of electronic health records in varied health care settings.
2. Utilize medical and pharmacological terminology effectively in documentation.
3. Apply basic coding and billing in the electronic health record.

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 Scribe Specialist Certificate program must:
1. Have completed 60 hours of transferrable 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. Submit a resume;
4. Hold current CPR certification at the time of registration;
5. Upon request, complete an interview with the admissions committee; and
6. Successfully complete (a grade of “C” or better) the following prerequisite 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>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Natural Science¹</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Humanities &amp; Fine Arts²</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Social or Behavioral Science³</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>

¹Natural Sciences include courses such as astronomy, anatomy and physiology, biology, chemistry, geology, physics or physical science.
²Humanities and Fine Arts include courses such as art history, dance, history, modern languages, music, philosophy, religion or theatre.
³Social and Behavioral Sciences include courses such as anthropology, economics, political science, psychology or sociology.

PROGRAM APPLICATION DEADLINES
All application documents and the application fees must be received by the Office of Enrollment Management by May 15 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

CERTIFICATE
Candidates for the Medical Scribe Specialist certificate must have completed the prescribed curriculum with a cumulative grade point average of 2.00 or better on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Medical Scribe Specialist Certificate from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>MSS 510 Applications of Electronic Health and Medical Records</td>
<td>2</td>
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<tr>
<td></td>
<td>HI 302 Medical Language &amp; Pathophysiology</td>
<td>3</td>
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<td></td>
<td>HI 303 Legal Foundations in HIIM</td>
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<tr>
<td>Spring</td>
<td>MSS 515 Principles of Billing, Coding, &amp; Reimbursement</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MSS 530 Applied Practicum</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total Required Hours</strong></td>
<td><strong>13</strong></td>
</tr>
</tbody>
</table>
NUCLEAR MEDICINE TECHNOLOGY (MS)

Kristi Moore, PhD, RT (R) (CT) ARRT, Clinical and Diagnostic Sciences Department Chair
Sherry J. West, DHA, RT (R) (N) ARRT, CNMT, Program Director
Chelsea P. Stephens, MHS, RT (R) (N), CNMT, Clinical Coordinator
Anson L. Thaggard, MD, Medical Advisor

ABOUT THE PROGRAM

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.

The Master of Science in Nuclear Medicine Technology (MSNMT) program is a full-time program consisting of didactic and clinical educational requirements completed within one (1) year. Students who satisfactorily complete all program requirements 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 misdemeanor or felony conviction may affect a graduate’s ability to sit for the ARRT and NMTCB certification examinations or attain state licensure.

ACCREDITATION STATUS

The nuclear medicine technology program is accredited by the Joint Review Committee on Educational Programs in Nuclear Medicine Technology (JRCNMT), 820 W Danforth Rd., #B1, Edmond, OK 73003. JRCNMT’s phone number is (405) 285-0546.

PROGRAM OBJECTIVES

NMT Practice
1. Demonstrate knowledge of theories, principles, responsibilities, and skills necessary for the practice of nuclear medicine.
2. Demonstrate clinical performance expertise in diverse nuclear medicine healthcare settings.
3. Integrate appropriate radiation safety measures in the professional environment.

Organizational and Systems Leadership, Management, and Education
4. Analyze the impact of leadership, education, and management strategies in healthcare professions.

Translating and Communicating Scholarship
5. Apply the necessary skills to produce a scholarly paper of research findings in a format for publication and oral presentation.

Interprofessional Collaboration for Improving Patient and Population Outcomes
6. Collaborate as a member of an interprofessional team in a manner that respects diversity and promotes ethical integrity in professional practice and community service.

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), Chemistry with Lab (1 course), and General Physics (1 course) or Radiologic Physics completed within an accredited Radiologic Sciences program;
4. Have a minimum overall cumulative grade point average of 3.00 on 4.00 scale;
5. Submit official scores on the Graduate Record Exam (GRE) that includes verbal, quantitative, and analytical writing scores;
6. Provide three (3) completed recommendation forms:
   - 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.

*Documentation of current ARRT (R) registration is required by the first day of the summer semester.

PROGRAM APPLICATION

All application documents and the application fees must be received by the Office of Enrollment Management by April 1 for summer admission. General application information and application procedures may be found in the SHRP General Admissions Requirements Policy [Policy E-SHRP-GEN-GEN-PO-00013] in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.
DEGREE
Candidates for the Master of Science in Nuclear Medicine Technology degree must have completed the prescribed curriculum with a cumulative grade point average of 3.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Master of Science in Nuclear Medicine Technology 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>NMT 601 Nuclear Medicine Foundations</td>
<td>3</td>
</tr>
<tr>
<td>NMT 606 Nuclear Physics and Radiobiology</td>
<td>2</td>
</tr>
<tr>
<td>NMT 610 Nuclear Medicine Technology Principles</td>
<td>3</td>
</tr>
<tr>
<td>NMT 612 Applied Nuclear Medicine Imaging I</td>
<td>3</td>
</tr>
<tr>
<td>NMT 624 Applied Nuclear Medicine Imaging II</td>
<td>4</td>
</tr>
<tr>
<td>NMT 650 Clinical Practicum I</td>
<td>3</td>
</tr>
<tr>
<td>NMT 651 Clinical Practicum II</td>
<td>4</td>
</tr>
<tr>
<td>NMT 652 Clinical Practicum III</td>
<td>4</td>
</tr>
<tr>
<td>NMT 660 Nuclear Medicine Seminar</td>
<td>3</td>
</tr>
<tr>
<td>NMT 670 NMT Leadership, Education, &amp; Management</td>
<td>2</td>
</tr>
<tr>
<td>NMT 690 Nuclear Medicine Research Methods I</td>
<td>2</td>
</tr>
<tr>
<td>NMT 699 Nuclear Medicine Research Methods II</td>
<td>3</td>
</tr>
<tr>
<td>Total Required Hours</td>
<td>36</td>
</tr>
</tbody>
</table>

CLINICAL FACILITIES
Clinical educational experiences in nuclear medicine technology are provided in conjunction with the following health care facilities:
- Baptist Medical Center – Jackson
- Cardinal Health Nuclear Pharmacy – Jackson
- G. V. “Sonny” Montgomery VA Medical Center – Jackson
- Jackson Heart Clinic -Jackson
- Merit Health - Central – Jackson
- St. Dominic Hospital – Jackson
- University of Mississippi Medical Center – Jackson

DOCTOR OF OCCUPATIONAL THERAPY (OTD)

Christy M. Morgan, PhD, OTR/L, Department Chair and Program Director

ABOUT THE PROGRAM
The occupational therapist is a health care professional that provides education and intervention to individuals and groups across the life span. Occupational therapy services are provided to individuals whose lives have been impacted by physical, cognitive, psychological or developmental problems or others who can also benefit from health promotion services. The therapist designs activities for individuals, groups, and communities to maximize occupational performance in self-care, work, leisure and other daily occupations. The therapist must have leadership capabilities, be able 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, school systems, and many other community-based settings.

Upon completion of the program, consisting of 36 continuous months, graduates (once the program is accredited) will be 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). All states require licensure in order to practice, and state licenses are usually based on the results of the NBCOT certification examination. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the NBCOT certification examination or attain state licensure.

ACCREDITATION STATUS
The entry-level Occupational Therapy Doctoral (OTD) degree program has applied for accreditation and has been granted Candidacy Status by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852-4929. ACOTE’s telephone number c/o AOTA is (301) 652-AOTA and its web address is www.acoteonline.org. As a transitioning program (i.e., MOT to OTD), the program must have a pre-accreditation review, complete an on-site evaluation, and be granted Accreditation Status before its graduates will be eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT).

PROGRAM OUTCOMES AND LEARNING OBJECTIVES
The OTD program strives to meet seven (7) overarching programmatic outcomes which include:
1. The OTD program will educate occupational therapists who are dedicated to the welfare of their clients and to the promotion of occupational therapy through service, scholarship, advocacy, leadership and lifelong learning.
2. The OTD program will maintain high levels of student retention throughout the three year program.
3. The OTD students will achieve excellence in performance and also express their satisfaction in a variety of fieldwork and capstone experiences.
4. The OTD program’s graduating classes will meet or exceed the national average for performance on the national board exam.
5. The majority of graduates from each OTD class will serve to meet the health, wellness and community needs of Mississippi’s population by being employed in Mississippi as occupational therapists within 6 months of graduation.
6. Graduates of the OTD program will express a high degree of satisfaction with their academic preparation for becoming entry level occupational therapists at the doctoral level.
7. Employers will express a high degree of satisfaction with OTD graduates.

The OTD program has fifteen (15) student learning objectives (SLOs) that are closely connected with four (4) curricular threads (i.e., Holistic Client Center Care SLO 1-7; Occupational Performance Across the Lifespan SLO 8-10; Professionalism, Leadership and Service SLO 11-13; and, finally, Evidence-based Practice and Scholarship SLO 14-15). The program’s student learning objectives are as follows.

Graduates of the University of Mississippi Medical Center’s School of Health Related Professions Doctor of Occupational Therapy Program shall:

1. Recognize the value of culture and diversity among individuals, groups, and communities and apply these principles during service provision and program development.
2. Analyze and apply the theories and models of practice that guide occupational therapy practice.
3. Select and perform standardized and non-standardized assessments while embracing a holistic client perspective.
4. Develop intervention plans to effectively promote occupational engagement.
5. Implement individualized intervention plans in coordination with the health care team and/or other stakeholders.
6. Develop and implement discharge plans for the continued well-being of the individual client.
7. Justify decisions made throughout the occupational therapy process using both clinical reasoning skills and published evidence.
8. Explain the significance of occupational engagement at every stage of life and across contexts.
9. Analyze the physical, cognitive, psychosocial, sensory, and other performance components that impact occupational participation across the lifespan.
10. Distinguish occupational performance as the core outcome for practice whether for individuals, groups, or communities.
11. Demonstrate professional integrity and ethical behaviors during interactions with individuals, groups, or communities.
12. Advocate for occupational therapy clients and services through program and partnership development with key stakeholders and policy makers.
13. Contribute to the community through ongoing participation in local, state, national, and international service and leadership opportunities.
14. Identify, analyze, and apply best evidence to make informed practice (e.g., evaluation, intervention, discharge) and programming decisions.
15. Conduct and disseminate research contributing to the profession’s body of knowledge.

PROGRAM ADMISSION REQUIREMENTS

Admission into the Occupational Therapy Doctoral program is competitive and selective due to a limited class size. 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 accept outside coursework, work experience or experiential learning in place of any OTD curriculum course. The program does not offer advanced placement or admission based on ability to benefit.

In addition to the general admission requirements for the University of Mississippi Medical Center and the School of Health Related Professions, candidates seeking admission into the Occupational Therapy Doctoral program must also meet the following minimum requirements:

1. Completion of a baccalaureate degree from a regionally accredited institution of higher learning or submission of a plan of study which outlines completion of a baccalaureate degree prior to summer enrollment. There is not a required major for the baccalaureate degree;
2. Earn a minimum overall cumulative grade point average of 3.00 on a 4.00 scale;
3. Provide evidence of 24 hours of observation under an occupational therapist or an occupational therapy assistant in at least three (3) varied occupational therapy clinical departments (i.e., practice settings) within the two (2) calendar years preceding the application deadline;
4. Submit an official Graduate Record Exam (GRE) report that includes verbal, quantitative and analytical writing scores;
5. Complete all prerequisite courses with the following stipulations. By the application deadline, at least four (4) of the seven (7) prerequisite courses must be complete; completion of all seven (7) courses by the deadline is preferred. Students must achieve a grade of “C” or better on each prerequisite course with a minimum prerequisite average of 3.0 on a 4.0 scale.
6. Upon invitation, complete an interview with representatives from the Occupational Therapy Admissions Committee.

<table>
<thead>
<tr>
<th>Prerequisite Courses*</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics(^1)</td>
<td>1</td>
<td>3</td>
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<tr>
<td>General 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>
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</table>
Anatomy and Physiology with Lab 2  2  8
Physics with Lab  1  4
Biological or Physical Science: 300 level or above  1  3-5
Total Prerequisites 7  24-26

1 Statistics may include courses such as Elementary, Behavioral or Introductory. Survey courses are not acceptable.
2 One course of pure human anatomy with lab AND one course of pure physiology with lab is equivalent to two combined anatomy and physiology with lab courses.

* Courses beyond the required prerequisites (above) which may be helpful to the student in the OTD program include: medical terminology; advanced science courses; psychology courses and/or research courses.

PROGRAM APPLICATION DEADLINE
All application documents (including completed observation forms) and the application fees must be received by the Office of Enrollment Management 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 and application procedures may be found in the SHRP General Admission Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center.

DEGREE
Candidates for the Doctor of Occupational Therapy degree must have successfully completed the prescribed curriculum, encompassing 36 continuous months (3 years) of study, with an overall cumulative grade point average of 3.00 or higher on a 4.00 scale. Following satisfactory completion of all course requirements, the student will be awarded the Doctor of Occupational Therapy degree from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

FIRST YEAR

Summer
OT 601 Functional Human Anatomy  5
OT 602 Functional Human Anatomy Laboratory  2
OT 605 Introduction to Occupational Therapy Practice  2
OT 608 Group Process and Leadership  2

Fall
OT 610 Kinesiology for Occupational Therapy  3
OT 612 Neuroscience for Occupational Therapy  4
OT 614 Occupation-Based Practice I  3
OT 616 Occupational Therapy: Pediatrics I  4
OT 617 Principles of Patient Care  2
OT 618 Research and Evidence-Based Practice I  2

Spring
OT 620 Occupation-Based Practice II  2
OT 622 Medical Conditions: Physical Dysfunction  4
OT 624 Occupational Therapy: Pediatrics II  3
OT 625 Pediatric Fieldwork I  2
OT 626 Occupational Therapy: Adult/Older Adult  3
OT 628 Research and Evidence-Based Practice II  2
OT 629 Research Proposal I  1

SECOND YEAR

Summer
OT 630 Management I: Legal and Ethical Principles  3
OT 632 Assistive Technology and Environmental Adaptation  3
OT 634 Community Health and Wellness  3
OT 638 Research and Evidence-Based Practice III  2
OT 639 Research Proposal II  1

Fall
OT 640 Occupational Therapy: Psychiatric/Psychosocial  4
OT 642 Neurological Principles in Occupational Therapy  3
OT 644 Orthopedic Principles in Occupational Therapy  3
OT 645 Physical Dysfunction Fieldwork I  2
OT 646 Case-Based Clinical Reasoning  3
OT 649 Research Project I  1
### Spring

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>OT 650</td>
<td>Ortheses and Physical Agent Modalities</td>
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<tr>
<td>OT 652</td>
<td>Specialty Interventions in Occupational Therapy</td>
<td>3</td>
</tr>
<tr>
<td>OT 654</td>
<td>Management II: Professional Leadership and Administration</td>
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<tr>
<td>OT 655</td>
<td>Psychiatric/Psychosocial Fieldwork I</td>
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<tr>
<td>OT 656</td>
<td>Advanced Experiential Learning Seminar</td>
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<tr>
<td>OT 658</td>
<td>Research and Evidence-Based Practice IV</td>
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<tr>
<td>OT 659</td>
<td>Research Project II</td>
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<td>OT 671</td>
<td>Doctoral Capstone Seminar</td>
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<tbody>
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<td>OT 680</td>
<td>Doctoral Capstone Experience**</td>
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</tr>
<tr>
<td>OT 685</td>
<td>Doctoral Capstone Project</td>
<td>2</td>
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</table>

**Total required hours**: 123

**Total possible hours**: 127

*The OTD degree requires the completion of a sequenced curriculum that is progressive in nature (i.e., required courses for each semester are prerequisites for required courses in subsequent semesters).

**Due to the variability of available clinical sites, completion of the clinical portion may be extended beyond the minimum of 36 months; however, students must complete Level II fieldwork and the doctoral capstone experience within 24 months following completion of the didactic portion of the program. A minimum of one fieldwork placement will be scheduled out-of-state. The doctoral capstone experience may be in or out of state.

### Physical Therapy (DPT)

Lisa Barnes, PT, DPT, PhD, Department Chair and Program Director

**About the Program**

The physical therapist is a health professional who 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.

Upon completion of the program, consisting of 36 continuous months, the graduate will be eligible to take the national physical therapy licensure examination. Be advised that a misdemeanor or felony conviction may affect a graduate’s ability to sit for the certification examination or attain state licensure.

**Accreditation Status**

The Doctor of Physical Therapy (DPT) program at the University of Mississippi Medical Center is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE), 1111 North Fairfax Street, Alexandria, VA 22314; telephone: (703) 706-3245; email: accreditation@apta.org; website: http://www.capteonline.org. If needing to contact the program/institution directly, please call (601) 984-6330 or email lbarnes@umc.edu.

**Program Objectives**

The Doctor of Physical Therapy program objectives encompass students, faculty and program graduates with focus in each of the three pillars of education, service, and scholarship. Program objectives include:

**Education**

1. Students will demonstrate entry-level knowledge and skill in the areas of examination, evaluation, diagnosis, prognosis, and intervention in patient-client management.

2. Students will enter clinical practice of the profession of physical therapy with entry-level knowledge and skills in across all aspects of the profession and practice of physical therapy.
3. Faculty will contribute to the educational component of the program, adhering to professional standards and practice guidelines, while following the mission and vision of the institution, the program and profession.
4. The Doctor of Physical Therapy program will prepare skilled clinicians who demonstrate competency in the practice of physical therapy.

**Service**
5. Students will actively participate in service to the community, the program/institution and the profession.
6. Faculty will actively participate in service activities to the department, the school, the institution, the profession, and the community.
7. The Doctor of Physical Therapy program will produce physical therapists who demonstrate social responsibility through service to their patients, community, and profession.

**Scholarship**
8. Students will synthesize research findings to answer clinically relevant questions within the field of physical therapy.
9. Faculty will contribute to the evidence that supports physical therapist practice through one or more forms of scholarship: discovery, integration, application, teaching, or engagement.
10. The Doctor of Physical Therapy program will prepares entry level physical therapists to appraise research evidence and apply to clinical practice.

**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 (2) physical therapy clinical departments or practices for total of 40 hours. Additional hours and sites are considered beneficial to enhance the applicant’s knowledge of the professions. A maximum of 20 hours may be used from any one (1) site. Hours earned through employment will not be accepted and no more than 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 Graduate Record Exam (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. Submit an essay specific to the topic provided by the DPT admissions committee;
8. Be proficient in the use of computers for word processing, spreadsheet, library database searching and be able to perform Internet searches; and
9. Successfully complete (a grade of “C” or better) the prerequisite courses as follows while maintaining the requisite 3.0 or higher GPA. At least five (5) of the eight (8) prerequisite courses must be completed by the end of the fall semester in which the application is submitted.

<table>
<thead>
<tr>
<th>Prerequisite Courses*</th>
<th>Number of Courses</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statistics (mathematics, psychology or education)</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Biology with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Chemistry with Lab</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Physics with Lab</td>
<td>2</td>
<td>6-8</td>
</tr>
<tr>
<td>Advanced Physical or Biological Science</td>
<td>1</td>
<td>3-5</td>
</tr>
<tr>
<td>Total Prerequisites</td>
<td></td>
<td>28-32</td>
</tr>
</tbody>
</table>

*Science survey courses designed for non-science majors are not acceptable for a required course. Combined anatomy and physiology courses will not be accepted as a prerequisite. 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.

*Must be taken at a senior college. Graduate level courses will not be used to meet prerequisite requirements.

*Must be 300 or 400 level undergraduate courses and taken at a senior college. Associated labs, whether incorporated or offered separately, must also be completed. Graduate level courses will not be used to meet prerequisite requirements.

**PROGRAM APPLICATION DEADLINE**
All application documents and the application fees must be received by the Office of Enrollment Management by November 1 for summer admission, while final fall transcripts must be received by Friday, January 15, 2021. General application information and application procedures may be found in the SHRP General Admissions Requirements Policy (Policy E-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center.

**DEGREE**
Candidates for the physical therapy degree must have completed the prescribed curriculum with an overall cumulative grade point average of 3.00 or higher on a 4.00 scale. 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.
### PROFESSIONAL COURSE OF STUDY

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>Summer</td>
<td>PT 600 Anatomical Basis of Human Movement in Physical Therapy Practice</td>
<td>5</td>
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<tr>
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<td>PT 607 Anatomical Basis of Human Movement in Physical Therapy – Lab</td>
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<td>PT 610 Introduction to Physical Therapy Practice</td>
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<tr>
<td>Fall</td>
<td>PT 601 Physiologic Basis of Physical Therapy I</td>
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<tr>
<td></td>
<td>PT 602 Human Kinesiology and Biomechanics I</td>
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<td></td>
<td>PT 611 Systems Review and Clinical Dysfunction</td>
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</tr>
<tr>
<td></td>
<td>PT 620 Acute Care in Physical Therapy I</td>
<td>4</td>
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<tr>
<td></td>
<td>PT 630 Principles of Physical Therapy Practice I</td>
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<tr>
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<td><strong>Total Required Hours</strong></td>
<td><strong>10</strong></td>
</tr>
</tbody>
</table>

#### SECOND YEAR

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>Summer</td>
<td>PT 604 Human Kinesiology and Biomechanics II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PT 605 Pharmacology in Physical Therapy</td>
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<tr>
<td></td>
<td>PT 633 Acute Care in Physical Therapy II</td>
<td>3</td>
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<tr>
<td></td>
<td>PT 640 Legal and Ethical Issues in Healthcare</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PT 670 Specialty Practice in Physical Therapy Elective</td>
<td>2*</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Fall</td>
<td>PT 617 Issues in Community Health and Prevention and Wellness</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PT 634 Assessment and Management of Musculoskeletal Problems II</td>
<td>3</td>
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<tr>
<td></td>
<td>PT 641 Organizational Systems in Healthcare Delivery</td>
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<td></td>
<td>PT 650 Clinical Experience I</td>
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<td>PT 664 Research Methodology I</td>
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<tr>
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<tr>
<td>Spring</td>
<td>PT 606 Neurosciences in Physical Therapy Practice</td>
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<tr>
<td></td>
<td>PT 612 Developmental Basis of Functional Movement across the Lifespan</td>
<td>3</td>
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<tr>
<td></td>
<td>PT 625 Physical Therapy Practice Across Client Populations</td>
<td>3</td>
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<tr>
<td></td>
<td>PT 636 Neurological Aspects of Physical Therapy Practice I</td>
<td>3</td>
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<tr>
<td></td>
<td>PT 661 Evidence-Based Physical Therapy Practice II</td>
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<td></td>
<td>PT 665 Research Methodology II</td>
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</tr>
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<td></td>
<td>PT 670 Specialty Practice in Physical Therapy Elective</td>
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#### THIRD YEAR

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<tr>
<th>Semester</th>
<th>Course Title</th>
<th>Semester Hours</th>
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<tr>
<td>Summer</td>
<td>PT 613 Applied Clinical Decision-Making</td>
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<tr>
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<td>PT 651 Clinical Experience II</td>
<td>6</td>
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<td></td>
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<tr>
<td>Fall</td>
<td>PT 616 Comprehensive Capstone</td>
<td>3</td>
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<tr>
<td></td>
<td>PT 637 Neurological Aspects of Physical Therapy Practice II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PT 638 Neurological Aspects of Physical Therapy Practice III</td>
<td>4</td>
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<tr>
<td></td>
<td>PT 642 Resource Management in Physical Therapy</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PT 670 Specialty Practice in Physical Therapy Elective</td>
<td>2*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14*</td>
</tr>
<tr>
<td>Spring</td>
<td>PT 652 Clinical Experience III</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>PT 653 Clinical Experience IV</td>
<td>6</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td><strong>Total Required Hours</strong></td>
<td><strong>120</strong></td>
</tr>
</tbody>
</table>

*Elective Option
RADIOLOGIC SCIENCES (BS – Traditional)
Kristi Moore, PhD, RT (R) (CT), ARRT, Clinical and Diagnostic Sciences Department Chair
Lee Brown, DHA, RT (R)(N), CNMT, RHIA, Program Director, Traditional Program
Seena Shazowee Edgerton, DHA, RT (R) (M), ARRT, Clinical Coordinator

ABOUT THE PROGRAM
Radiologic technologists perform medical imaging procedures, to include conventional radiography, fluoroscopy and surgical studies, for the purpose of diagnosing disease and injury. 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. 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.

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 in Radiologic Sciences degree and are prepared to apply for 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.

ACCREDITATION STATUS
The Bachelor of Science in Radiologic Sciences program is programmatically accredited by the Joint Review Committee on Education in Radiologic Technology (JRCERT), mail@jrcert.org, 20 N. Wacker Dr., Suite 2850; Chicago, IL 60606-3182. JRCERT’s phone number is (312) 704-5300.

PROGRAM OBJECTIVES
Clinical Performance and Competence
1. Demonstrate procedural skill development to competently perform diagnostic imaging procedures.
2. Demonstrate knowledge of radiation protection to provide a safe imaging environment for the patient, themselves, and other healthcare professionals.

Critical Thinking and Problem Solving Skills
3. Determine the need to modify standard procedures and technical factors to accommodate patient conditions and other variables.
4. Perform nonroutine examinations on trauma patients.

Effective Communication Skills
5. Communicate scientific research effectively.
6. Communicate effectively with patients and healthcare professionals.

Professional Growth and Development
7. Demonstrate responsibility and attentiveness in clinical rotations.
8. Demonstrate further research and knowledge of professional opportunities.

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 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 Science</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 Arts</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Anatomy and Physiology with Lab</td>
<td>2</td>
<td>8</td>
</tr>
</tbody>
</table>
Natural Sciences\(^3\) & 1 & 3 \\
Basic Computer Concepts and Applications & 1 & 3 \\
Electives\(^4\) & & 19 \\
**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.  
\(^3\)Natural Sciences include courses such as astronomy, biology, chemistry, geology, physics or physical science.  
\(^4\)The 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 Enrollment Management by February 15 for fall admission. General application information and application procedures may be found in the SHRP General Admissions Requirements Policy (Policy E-SHRP-GEN-GEN-PQ-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.

**DEGREE**

Candidates for the Radiologic Sciences degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or higher on a 4.00 scale. Following satisfactory completion of all program requirements, students will be awarded the Bachelor of Science in Radiologic Sciences degree from the University of Mississippi.

**PROFESSIONAL COURSE OF STUDY**

**JUNIOR YEAR**

<table>
<thead>
<tr>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
</tr>
<tr>
<td>RAD 300 Concepts of Radiologic Sciences</td>
</tr>
<tr>
<td>RAD 306 Radiographic Procedures I</td>
</tr>
<tr>
<td>RAD 312 Radiation Protection</td>
</tr>
<tr>
<td>RAD 324 Age Specific Patient Care</td>
</tr>
<tr>
<td>RAD 330 Radiologic Physics</td>
</tr>
<tr>
<td>RAD 354 Clinical Practicum I</td>
</tr>
<tr>
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</table>

<table>
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<tr>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>Summer</td>
</tr>
<tr>
<td>RAD 318 Image Formation</td>
</tr>
<tr>
<td>RAD 336 Radiobiology</td>
</tr>
<tr>
<td>RAD 342 Research Methods</td>
</tr>
<tr>
<td>RAD 348 Radiographic Procedures II</td>
</tr>
<tr>
<td>RAD 360 Clinical Practicum II</td>
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</table>

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
</tr>
<tr>
<td>RAD 406 Radiographic Procedures III</td>
</tr>
<tr>
<td>RAD 412 Advanced Medical Imaging Science</td>
</tr>
<tr>
<td>RAD 418 Digital Image Acquisition and Display</td>
</tr>
<tr>
<td>RAD 420 Image Evaluation and Critique</td>
</tr>
<tr>
<td>RAD 460 Clinical Practicum IV</td>
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</table>

**SENIOR YEAR**

<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>Summer</td>
</tr>
<tr>
<td>RAD 400 Legal and Ethical Issues in Imaging Sciences</td>
</tr>
<tr>
<td>RAD 451 Management Issues in Diagnostic Health Care</td>
</tr>
<tr>
<td>RAD 454 Clinical Practicum III</td>
</tr>
<tr>
<td>RAD 472 Seminar I</td>
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<table>
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<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
</tr>
<tr>
<td>RAD 406 Radiographic Procedures III</td>
</tr>
<tr>
<td>RAD 412 Advanced Medical Imaging Science</td>
</tr>
<tr>
<td>RAD 418 Digital Image Acquisition and Display</td>
</tr>
<tr>
<td>RAD 420 Image Evaluation and Critique</td>
</tr>
<tr>
<td>RAD 460 Clinical Practicum IV</td>
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<table>
<thead>
<tr>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>RAD 424 Principles of Computed Tomography</td>
</tr>
<tr>
<td>RAD 430 Pharmacology and Drug Administration</td>
</tr>
<tr>
<td>RAD 436 Radiographic Pathology</td>
</tr>
<tr>
<td>RAD 448 Radiographic Procedures IV</td>
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<tr>
<td>RAD 466 Clinical Practicum V</td>
</tr>
<tr>
<td>RAD 475 Seminar II</td>
</tr>
<tr>
<td>13</td>
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</tbody>
</table>

**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
• Madison Radiological Group LLC – Madison
• Medical Associates of Vicksburg – Vicksburg
• 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 – Jackson
• University Physicians Grants Ferry Clinic – Flowood

RADIOLOGIC SCIENCES (BS – Advanced Standing)(Online)
Kristi Moore, PhD, RT (R) (CT), ARRT, Clinical and Diagnostic Sciences Department Chair
Mike Ketchum, DHA, RT (R), Program Coordinator, Advanced Standing Program

ABOUT THE PROGRAM
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 (5) semesters, is designed for part-time, non-traditional students. Online coursework is the method of content delivery.

PROGRAM OBJECTIVES
The mission of the radiologic sciences program is to prepare credentialed radiologic technologists for advanced opportunities and to assume greater responsibilities in the profession. The program objectives are that students will:
1. Be adequately prepared to function within the profession as an integral part of an interdisciplinary team within a complex and diverse healthcare delivery system.
2. Expand their independent and critical thinking skills.
4. Develop professionally through scholarly productivity.

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 or be registry eligible*;
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:

<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 Science(^1)</td>
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<tr>
<td>College Algebra, Quantitative Reasoning or Higher Mathematics</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Humanities and Fine Arts(^2)</td>
<td>3</td>
<td>9</td>
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<tr>
<td>Anatomy and Physiology with lab</td>
<td>2</td>
<td>8</td>
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<tr>
<td>Electives(^3)</td>
<td></td>
<td>28</td>
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<tr>
<td><strong>Total Prerequisites</strong></td>
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<td><strong>60</strong></td>
</tr>
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\(^1\)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.
\(^3\)The 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.

*Documentation of current ARRT (R) registration is required by the first day of the fall semester.

PROGRAM APPLICATION DEADLINE
All application documents and application fees must be received by the Office of Enrollment Management by July 1 for fall admission. General application information and application procedures may be found in the SHRP General Admission Requirements Policy (Policy F-SHRP-GEN-GEN-PO-00013) in the UMMC Document Center. 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 Enrollment Management after the deadline at (601) 984-1080.
DEGREE
Candidates for the Radiologic Sciences degree must have completed the prescribed curriculum with an overall cumulative grade point average of 2.00 or higher on a 4.00 scale. Following satisfactory completion of all requirements, students will be awarded the Bachelor of Science in Radiologic Sciences degree from the University of Mississippi.

PROFESSIONAL COURSE OF STUDY

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>RAD 400 Legal and Ethical Issues in Imaging Sciences</td>
<td>3</td>
</tr>
<tr>
<td>RAD 414 Advanced Clinical Practice Skills</td>
<td>4</td>
</tr>
<tr>
<td>RAD 418 Digital Image Acquisition and Display</td>
<td>3</td>
</tr>
<tr>
<td>RAD 430 Pharmacology and Drug Administration</td>
<td>2</td>
</tr>
<tr>
<td>RAD 436 Radiographic Pathology</td>
<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>
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</table>

*Upon the successful completion of RAD 484, students will be awarded an additional 30 semester hours of professional credit based on previous coursework required for certification and professional credential.

COURSES OF INSTRUCTION

BHSA 300. Survey of Health Care Delivery. An introduction to the national and global health care delivery systems. The course focuses on the evolution of health care, payer, provider, and supplier aspects of health systems. Online, Internet, or Web-based Lecture (3 hours)

BHSA 303. Writing for Health Care 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 hours)

BHSA 305. Cultural Competency in Health Care. This course is designed to increase awareness of the need to provide health care to patients with diverse values, beliefs, and behaviors. Emphasis will be placed on tailoring health care delivery to meet patients’ social, cultural, and linguistic needs. Online, Internet, or Web-based Lecture (3 hours)

BHSA 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 hours)

BHSA 310. Principles of Management in Health Care. Management and leadership theories, functions, and skills required for success in the health care organization, with an emphasis on supervisory management. Online, Internet, or Web-based Lecture (3 hours)

BHSA 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 health care delivery system. Online, Internet, or Web-based Lecture (3 hours)

BHSA 313. Health Education in Health Care Systems. An introduction to health education programs for the health care 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 hours)

BHSA 319. Interdisciplinary Health Studies. An introductory study of the intersecting concepts, skills, facets, tenets, and trends of the modern health care delivery industry. Online, Internet, or Web-based Lecture (3 hours)

BHSA 320. The Role of Quality Improvement in Health Care. 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 hours)

BHSA 326. Human Resources in Health Care. Principles and policies of personnel administration including interviewing, evaluating, and compensating with emphasis on health care settings. Online, Internet, or Web-based Lecture (3 hours)

BHSA 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 hours)

BHSA 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 hours)

BHSA 408. Organizational Behavior in Health Care. 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 hours)

BHSA 409. Intro 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 hours)

BHSA 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 health care environment. Online, Internet, or Web-based Lecture (3 hours)
BHSA 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 hours)

BHSA 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 hours)

BHSA 427. Finance and Reimbursement in Health Care. Introduction to health care budgeting and finance, including legislation, federal programs, managed care, and subscription programs Online, Internet, or Web-based Lecture (3 hours)

BHSA 430. Strategic Decision Making in Health Care. The application of applied statistics and data analysis for strategic decision making in health care organizations. Online, Internet, or Web-based Lecture (3 hours)

BHSA 455. Capstone Seminar. A capstone course in which students utilize the knowledge, skills and insight gained from previous coursework in the BHSA program to develop a project related to the student’s area of focus/interest. Projects may be designed to improve some facet of health care delivery or program administration. Online, Internet, or Web-based Lecture (3 hours)

BHSA 490. Special Topics. Inter-professional elective. Content varies. May be repeated for credit. Prerequisite: Permission of program director. Online, Internet, or Web-based Lecture (1-5 hours)

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 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 hours)

DHA 712. Strategic Change Management. A discussion 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 hours)

DHA 718. Current Trends in Accreditation & Licenses. An inquiry into the foundations, requirements, and trends in various accrediting and licensing entities within healthcare. Online, Internet, or Web-based Lecture (3 hours)

DHA 724. Health Care 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 hours)

DHA 736. Health Economics. A discussion 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 hours)

DHA 748. Communications in Health Organizations. An exploration of concepts and issues related to communication among internal and 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 hours)

DHA 754. Fundamentals of Applied Research. An inquiry into the principles and techniques for designing and implementing research studies in the health care environment. Critical assessment of literature, analysis and interpretation of results, and application to management decisions will be studied. Online, Internet, or Web-based Lecture (3 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 hours)

DHA 760. Fiscal Responsibility and Accountability. An examination of financial management and operations theory as related to healthcare delivery. Online, Internet, or Web-based Lecture (3 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 hours)

DHA 767. Current Topics in Health Administration. An exploration of the rapidly changing health care landscape. Students will examine executive-level managers’ use of innovative and strategic practices to capitalize on trends and optimize potential opportunities in today’s health care market. Online, Internet, or Web-based Lecture (3 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 hours)

DHA 776. Applied Research Techniques. A continuation of DHA 754, Fundamentals of Applied Research. Students will apply research methods to community health problems and critique research in terms of design, technique, analysis, and interpretation. Online, Internet, or Web-based Lecture (3 hours)

DHA 791. Doctoral Project Proposal. In consultation with the department chair and advisory committees, students will write and successfully defend a doctoral research project proposal in which they describe the problem and question(s) to be answered, the introduction, the literature review, and the investigation portions of the project. Online, Internet, or Web-based Dissertation (9 hours)

DHA 798. Doctoral Project. In consultation with the department chair and the advisory committees, research, findings, implementations and conclusions of the doctoral research project will be defended and recorded. Online, Internet, or Web-based Dissertation (3-9 hours)
DOM 501. Direct Medical Support Operator I. A study of advanced medical support, including concepts related to crush injury, cardiovascular emergencies, and musculoskeletal traumas. Online, Internet, or Web-based Lecture (5 hours)

DOM 503. Direct Medical Support Operator II. A study of advanced medical support, including concepts related to neurological, abdomen, chest, and pelvic traumas, burns, toxicodones, and K9/Working dog management. Online, Internet, or Web-based Lecture (5 hours)

DOM 505. Direct Medical Support Operator III. A study of advanced medical support, including concepts related to advanced pharmacology and resuscitation. This course is optional and designed for paramedics who want additional advanced training. Online, Internet, or Web-based Lecture (5 hours)

HI 301. Health Information Mgmt Across Health Ca. Health information systems in various healthcare settings including record content, access and retention, accreditation and licensure, electronic health records, and comparative reimbursement systems. Online, Internet, or Web-based Lecture/Lab (4 hours)

HI 302. Medical Language & Pathophysiology. A study of current clinical concepts with emphasis on medical language, disease etiologies and evidence based treatments. Online, Internet, or Web-based Lecture (3 hours)

HI 303. Legal Foundations in HIIM. A study of health information laws, regulations, and standards; professional ethical issues; legal health records in an electronic environment; and e-discovery guidelines. Online, Internet, or Web-based Lecture (3 hours)

HI 312. Data Analytics & Visualization. The application of analytical tools to compile, analyze and visualize healthcare data. Online, Internet, or Web-based Lecture (3 hours)

HI 313. Healthcare Database Design & Admin. Utilize technology for data collection, storage, analysis, and reporting of information by applying knowledge of database architecture and design to meet organizational needs. Online, Internet, or Web-based Lecture (3 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 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 hours)

HI 335. Coding & Classification Systems. Classifying diagnoses and procedures; case mix classifications; and provider reimbursement mechanisms for inpatients and outpatients. Prerequisite HI 302. Online, Internet, or Web-based Lecture (4 hours)

HI 336. Research Design & Healthcare Statistics. The application of research methods including healthcare statistics to explore health information practices. Online, Internet, or Web-based Lecture (3 hours)

HI 340. Health Info Privacy, Security, Governance. Advanced application of legal concepts regarding managing access and disclosure of personal health information, ensuring privacy and security of protected health information, and enterprise-wide information management. Online, Internet, or Web-based Lecture (3 hours)

HI 341. Healthcare Standards, Terms & Data Sets. An examination of standardized clinical terminologies, healthcare information standards, data sets required for state and federal reporting, and standards needed to attain interoperability. Online, Internet, or Web-based Lecture (3 hours)

HI 342. Seminar I. Self guided study to review content of junior courses taken and prepare for the RHIA exam. Students take mock RHIA exam quizzes to assess readiness for the registry exam. Online, Internet, or Web-based Lecture (1 hour)

HI 345. Electronic Health Records & Informatics. Applied principles of health informatics, including electronic health record technologies and infrastructure, human factors and ergonomics, health information exchange to support population health, e-health and consumer informatics. Online, Internet, or Web-based Lecture (3 hours)

HI 418. Management of Health Information Systems. Apply general principles of management in the administration of health information services; interpret concepts of change management theories, techniques and leadership. Online, Internet, or Web-based Lecture (4 hours)

HI 420. Biostatistics & Analytical Tools. Analyze statistical data to visualize trends to demonstrate quality, safety, and effectiveness while facilitating healthcare decision making. Online, Internet, or Web-based Lecture (3 hours)

HI 421. Health Care Compliance and Document Impr. Determine processes for compliance with current laws and standards related to health information initiatives and revenue cycle, including verification of health record documentation in supporting patient care and the claims process. Online, Internet, or Web-based Lecture (4 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 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. Online, Internet, or Web-based Lecture (3 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 (1-4 hours)

HI 431. Healthcare Systems Design & Project Mgmt. Utilize project management tools to plan, design, implement and evaluate health information systems. Online, Internet, or Web-based Lecture (4 hours)

HI 432. Capstone Experience. Applied health information principles through completion of a formal capstone project in a health care setting. Online, Internet, or Web-based Clinical Rotation (2 hours)
HI 442. Seminar II. Self guided study to review content of senior courses taken. Students take a mock RHIA exam to assess readiness for the registry exam, and then sit for the RHIA exam administered by AHIMA. Online, Internet, or Web-based Lecture (2 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 (2 hours)

HI 485. Health Info Admin Professional Practicum. Project-based practice of health information administration in affiliated healthcare organizations that support or regulate healthcare organizations or healthcare professionals. Projects completed will relate to didactic courses taken previously or concurrently. Online, Internet, or Web-based Clinical Rotation (1 hour)

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 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 hours)

HI 602. Health Care Delivery and Policy. A survey of the modern health care system, covering health information technology, financing health care, population health and policies that serve as the foundation of the US health care system. Online, Internet, or Web-based Lecture (3 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 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 hours)

HI 608. Data Arch, Analytics, & Visualization. Overview of data sciences focusing on architecture, analytics, visualization, mining, big data and warehousing. Online, Internet, or Web-based Lecture (3 hours)

HI 610. Privcy, 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 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 hours)

HI 613. Health Care Performance Improvement Stra. Principles of performance improvement applied to healthcare organizations. Online, Internet, or Web-based Lecture (3 hours)

HI 614. Privacy and Security for Health Informat. 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 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 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 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 hours)

HI 620. Clinical Classifications Systems III. Classifying outpatient services. Review of APCs and building on HI 621 with adding diagnoses to complete the classification. Prerequisites: HI 621 and HI 622. Online, Internet, or Web-based Lecture (1 hour)

HI 622. Clinical Classifications Systems. An analysis of clinical documentation impact on compliance, quality, and reimbursement. Prerequisites: HI 621, HI 622 and HI 623. Online, Internet, or Web-based Lecture (1 hour)


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 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 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 hours)

HI 634. Dev. of Electronic Health Info Systems. 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 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 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 hours)

HI 684. Management Capstone. An applied practice-based problem solving experience that draws on health information management and informatics principles. Online, Internet, or Web-based Clinical Rotation (1 hour)

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 hours)

HI 698. Capstone in Health Informatics. Project-based practice requiring active participation in developing informatics-based applications. Each student will develop a specific set of goals, to be approved by the student’s advisor and practicum supervisor. A final report and/or presentation will be required. Online, Internet, or Web-based Practicum/Internship (1-3 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 hours)

HS 300. Survey of Health Care Delivery. An introduction to the national and global healthcare delivery systems. The course focuses on the evolution of healthcare, payer, provider, and supplier aspects of health systems. Online, Internet, or Web-based Lecture (3 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 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 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 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 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 hours)

HS 313. Health Education in Healthcare Systems. An introduction to health education programs for the healthcare professional working in healthcare facilities and systems. Includes development and delivery of programs and current problems in continuing professional health education. Online, Internet, or Web-based Lecture (3 hours)

HS 319. Interdisciplinary Health Studies. An introductory study of the intersecting concepts, skills, facets, tenets, and trends of the modern healthcare delivery industry. Online, Internet, or Web-based Lecture (3 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 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 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 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 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 hours)

HS 409. Intro 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 healthcare 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 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 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 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 hours)
HTL 300. Introduction to Histology. An introductory course designed to familiarize the student with the study of basic histology. The course will focus on the care and use of a microscope and basic tissue identification. Structure and identification of tissue systems and instruments in the histology laboratory. Traditional Lecture/Lab (3 hours)

HTL 305. Basic Clinical Biochemistry. An introduction to the fundamental aspects of biochemistry with an emphasis on the relationship between structure and function of the major classes of macromolecules in living systems. Traditional Lecture (2 hours)

HTL 310. Medical Terminology. The study of basic medical terminology as it applies to the structure, function, and diseases of the human body. Traditional Lecture (2 hours)

HTL 320. Histotechniques I. A systematic lecture and laboratory study of the theory and practical applications of tissue fixation, processing, embedding, sectioning, micrometry, and routine staining. Students will learn the basic principles, components, and use of instruments in the histology laboratory. Traditional Lecture/Lab (4 hours)
HTL 330. Staining Techniques I. The theoretical and practical aspects of routine and special stains. Quality control of routine and special stains is also covered. Staining techniques for identifying nuclear and cytoplasmic structures, carbohydrates, and amyloid will be presented. Traditional Lecture/Lab (3 hours)

HTL 410. Ethics and Professional Issues. A review of legal and ethical concepts affecting healthcare professionals. Traditional Lecture (1 hour)

HTL 420. Histotechniques II. A lecture and laboratory focusing on the theory and practical applications of routine and advanced techniques in histology such as: immunohistochemistry, enzyme histochemistry, microwave technology, in situ hybridization and electron microscopy. Prerequisite: HTL 320. Traditional Lecture/Lab (4 hours)

HTL 425. Seminar. This course provides an overview of various topics in Histotechnology. Traditional Lecture (1 hour)

HTL 430. Staining Techniques II. A continuation of routine and special stains with an emphasis on connective, muscle, and nerve tissues. Pigments, minerals, and cytoplasmic granules will be differentiated and identified. Prerequisite: HTL 330. Traditional Lecture/Lab (3 hours)

HTL 435. Histotechnology Capstone. This course provides a review of histology theory and practice through use of assessment modules focusing on: fixation, processing, embedding, staining, immunohistochemistry, flow cytometry, in situ hybridization, electron microscopy, lab operations, gross dissection and description, cytology, and lab safety. Prerequisite: HTL 420 Traditional Lecture (2 hours)

HTL 440. Histotechnology Practicum I. Supervised rotations through clinical sites, to include histopathology, autopsy pathology, immunohistochemistry, and electron microscopy. Prerequisite: HTL 420. Traditional Clinical Rotation (5 hours)

HTL 445. Histotechnology Practicum II. Supervised rotations through clinical sites, to include advanced techniques and special stains and procedures in histopathology, autopsy pathology, immunohistochemistry, and electron microscopy. Prerequisite: HTL 420. Traditional Clinical Rotation (5 hours)

MHSA 601. Strategic Management in Health Care. A study of strategic management of healthcare organizations, including the formulation of long term strategic directions, the planning of objective and supporting strategies, and the control of strategic implementation. Online, Internet, or Web-based Lecture (3 hours)

MHSA 602. Legal/Ethical Concepts in Health Care. An examination of the legal, ethical, and social issues that arise in the management of health services organizations. Online, Internet, or Web-based Lecture (3 hours)

MHSA 604. Organizational Behavior. An exploration of organizational structure and processes including interpersonal relations and team development with a particular focus on health care environments. Additionally, this course will provide the health care 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 hours)

MHSA 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 hours)

MHSA 616. Health Care Administration. A practical and quantitative approach to operation and management of health care delivery systems including administration, financial systems, staffing, departmental functions, and performance evaluation. Online, Internet, or Web-based Lecture (3 hours)

MHSA 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 hours)

MHSA 650. Resource Management. An examination of the functions of administrators in health care and academic environments in relation to personnel, finance, resource allocation and strategic planning. Online, Internet, or Web-based Lecture (3 hours)

MHSA 651. Quality & Risk Management in Health Care. An examination of health care quality improvement and risk management in the U.S. including the methods that are utilized to achieve improvements in the health care setting. Online, Internet, or Web-based Lecture (3 hours)

MHSA 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 hours)

MHSA 653. Research for Health Professionals. A study of research design and methods with a focus on critically evaluating published research. Online, Internet, or Web-based Lecture (3 hours)

MHSA 654. Contemporary Issues in Health Care Finan. A study of current issues in health economics including problems and options in the financing of health care, physician and hospital services, mental health, long term care, and health care reimbursement. Online, Internet, or Web-based Lecture (3 hours)

MHSA 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 hours)

MHSA 699. Integrated Health Care Leadership. A capstone course in which students utilize the knowledge, skills, and insight gained from previous courses taken in the MHSA program and from their individual life experiences to develop, implement, and evaluate a project designed to improve some facet of health care delivery or program administration Online, Internet, or Web-based Lecture (3 hours)

MLS 310. Body Fluid Analysis. A study of the qualitative and quantitative changes in the renal system based on anatomical and physiological alteration. Online, Internet, or Web-based Lecture/Lab (3 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. Online, Internet, or Web-based Lecture/Lab (3 hours)

MLS 312. Essentials of Hematology. A study of blood and blood forming organs and basic diagnostic procedures. Traditional Lecture/Lab (3 hours)

MLS 313. Clinical Bacteriology. A study of pathological bacteria with an emphasis on techniques of isolation and identification. Traditional Lecture/Lab (3 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 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 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 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 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 hours)

MLS 325. Immunohematology I. A study of principles, techniques, and applications of blood transfusion practices. Traditional Lecture/Lab (3 hours)

MLS 326. Clinical Simulation. A capstone course of medical laboratory science focusing on clinical diagnosis. Traditional Lecture (3 hours)

MLS 327. Laboratory Operations. A study of laboratory math, basic statistics, and quality assurance programs in the clinical laboratory. Online, Internet, or Web-based Lecture (2 hours)

MLS 331. Diagnostic Hemostasis. 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 hour)

MLS 335. Immunohematology II. A continuation of MLS 325 Immunohematology I. A study of principles, techniques, and applications of blood transfusion practices. Traditional Lecture/Lab (3 hours)

MLS 340. General Pathology. A study of the etiology and symptomatology of the general pathological conditions affecting the body. Traditional Lecture (2 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. Online, Internet, or Web-based Lecture (3 hours)

MLS 413. Diagnostic Microbiology. A study of clinical specimens with regard to pathogenic organisms and diagnosis in organ systems. Traditional Lecture/Lab (3 hours)

MLS 416. Research Design and Statistics. A study of basic research and statistics with emphasis on analyzing and researching issues through literature reviews Traditional Lecture (3 hours)

MLS 417. Principles of Mgmt & Education in CLS. An introduction to the principles of management and education as applied to the profession of medical laboratory science. Online, Internet, or Web-based Lecture (1 hour)

MLS 422. Hematology Practicum. Clinical education practicum in affiliated laboratories. Prerequisite: MLS 322 Traditional Clinical Rotation (3 hours)

MLS 423. Clinical Microbiology Practicum. Clinical education practicum in affiliated laboratories. Prerequisite MLS 323 Traditional Clinical Rotation (3 hours)

MLS 424. Clinical Chemistry Practicum. Clinical education practicum in affiliated laboratories. Prerequisite MLS 324 Traditional Clinical Rotation (3 hours)

MLS 425. Immunohematology Practicum. Clinical education practicum in affiliated laboratories. Prerequisite MLS 325 Traditional Clinical Rotation (3 hours)

MLS 429. Clinical Correlations. Student presentations of case studies and new laboratory techniques to aid in clinical diagnosis. Online, Internet, or Web-based Lecture (2 hours)

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 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, radiographic systems and gradient systems. Traditional Lecture (3 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 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 include clinical considerations regarding contrast administration and safety, magnetic field safety, and procedural considerations for optimal scanning techniques. Traditional Lecture (3 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 (3 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 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 valuation, image post processing, patient care, and professional development. Traditional Clinical Rotation (4 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 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 (3 hours)

MRI 670. MRI Leadership, Education, & Management. Explores current professional issues in magnetic resonance imaging and health care delivery. Students will explore, analyze, and evaluate health care reform, professional practice issues, educational standards, and organizational behavior in the context of the daily professional practice of radiology administrators, managers, and educators. Emphasis will be placed on contemporary theories of leadership and current factors affecting health policy and healthcare administration. Online, Internet, or Web-based Lecture (2 hours)

MRI 690. Magnetic Resonance Imaging Research I. Reinforces the conceptual basis for the interpretation and critical analysis of professional literature and the research process. Emphasis is on the evaluation of magnetic resonance imaging topics and effective communication of research via written and oral presentations. Online, Internet, or Web-based Lecture (2 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 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 hours)

MSS 501. Medical & Pharmacological Terminology. A study of basic medical and pharmacological terminology with emphasis on clinical and patient record documentation. This course also introduces common medical equipment abbreviations, descriptions and uses in clinics, hospitals and emergency departments. Online, Internet, or Web-based Lecture (2 hours)

MSS 505. Body Systems and Diagnostics. This course examines the fundamentals of human anatomy. Relationships and organization of the major structures of the body will be covered, along with medical procedures pertaining to body systems and the vocabulary of key anatomic structures necessary to communicate information in a medical environment. Online, Internet, or Web-based Lecture (3 hours)

MSS 510. App of Electronic Hlth and Med Records. This course emphasizes basic computer theory and application important for successful use of computers in a medical setting, applications of electronic health records, electronic medical records and patient safety. Online, Internet, or Web-based Lecture (2 hours)

MSS 515. Prin of Billing, Coding, & Reimbursement. This course provides an introduction to billing processes, medical coding used within electronic health records (EHR), and reimbursement guidelines. This course also includes overviews of HITECH policies, Meaningful Use, MACRA, MIPA and Alternate Payment Models (APM). Online, Internet, or Web-based Lecture (3 hours)

MSS 520. Legal Guidelines & Ethics for HC Prof. An examination of the application of ethical principles; legal issues pertaining to the confidentiality of health information; regulatory agencies and laws; privacy standards and rules, HIPAA in relation to health information disclosure and legal aspects of the health record. This course also includes professional components of healthcare personnel. Online, Internet, or Web-based Lecture (2 hours)

MSS 525. Quality Improvement and Workflow. A study of quality improvement outcomes relating to disease processes and treatments, preventative medicine and health and wellness. This course also provides an overview of workflow in various healthcare settings including outpatient, emergency department (ED) and the hospital. Online, Internet, or Web-based Lecture (3 hours)

MSS 530. Applied Practicum. Clinical education practicum in simulated modules and affiliated clinical sites. Traditional Clinical Rotation (2 hours)
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 mathematical 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 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 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 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 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 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 hours)

NMT 651. Clinical Practicum II. A continuation of NMT 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 hours)

NMT 652. Clinical Practicum III. A continuation of NMT 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 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. Traditional Lecture (3 hours)

NMT 670. NMT Leadership, Education, & Management. Explores current professional issues in nuclear medicine and health care delivery. Students explore, analyze, and evaluate health care reform, professional practice issues, educational standards, and organizational behavior in the context of the daily professional practice of radiology administrators, managers, and educators. Emphasis is placed on contemporary theories of leadership and current factors affecting health policy and healthcare administration. Online, Internet, or Web-based Lecture (2 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. Online, Internet, or Web-based Lecture (2 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. Online, Internet, or Web-based Lecture (3 hours)

OT 601. Functional Human Anatomy. In-depth knowledge of the gross anatomical structures and functions of the human body. Emphasis is placed on the study of the musculoskeletal system with particular attention to the specific muscle functions and consequences of their loss related to occupational performance. Traditional Lecture (5 hours)

OT 602. Functional Human Anatomy Laboratory. Dissection laboratory to complement OT 601 Functional Human Anatomy. Traditional Laboratory (2 hours)

OT 605. Intro to Occupational Therapy Practice. Basic tenets of occupational therapy are introduced. Topics include history and philosophy of the profession, theories/frames of reference, ethics and professionalism, professional terminology and selected official documents of the profession. The role of the occupational therapist in the context of various service delivery systems will be explored, with emphasis on the U.S. health care system. Traditional Lecture (2 hours)

OT 608. Group Process and Leadership. Includes an analysis of individual and group interactions, communication processes, group dynamics and opportunities for leadership skill development. Traditional Lecture (2 hours)

OT 610. Kinesiology for Occupational Therapy. 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 articuler structures and other application labs. Traditional Lecture/Lab (3 hours)

OT 612. Neuroscience for Occupational Therapy. In-depth examination of the structure and function of the nervous system. Localized disruptions of nervous system activities are linked to motor and sensory dysfunctions. Traditional Lecture (4 hours)
OT 614. Occupation-Based Practice I. Examines occupational therapy models, theories and frames of reference as well as 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 for individuals and populations across the life span. Traditional Lecture/Lab (3 hours)

OT 616. Occupational Therapy: Pediatrics I. Explores conditions commonly seen in pediatric occupational therapy practice from birth to middle childhood. Etiology, symptoms, medical intervention and implications for occupational performance are examined. Identifies the physical, psychological, social and cultural forces that affect children's occupations within the environment. Emphasis is placed on occupational therapy theories/frames of reference, evaluation/intervention and additional aspects of service delivery (e.g., consultation, care coordination and transition processes). Traditional Lecture/Lab (4 hours)

OT 617. Principles of Patient Care. Introduces concepts and skills related to basic patient care including topics such as infection control, vital signs, body mechanics, positioning, transfers, wheelchairs, and specialized techniques/equipment. Traditional Lecture (2 hours)

OT 618. Research and Evidence-Based Practice I. Introduces concepts essential for evidence-based practice in occupational therapy. Evidence is located and reviewed. Principles related to research design, statistical methods, and critical appraisal will be examined. Traditional Lecture (2 hours)

OT 620. Occupation-Based Practice II. A continuation of OT614 which advances the understanding and application of models/theories and the Occupational Therapy Practice Framework: Domain and Process through advanced analysis, adaptation and implementation of activities, and maximization of resources. Focus is on evidence-based reasoning for enhancing occupational performance of individuals and populations across the life span. Traditional Lecture/Lab (2 hours)

OT 621. Medical Conditions: Physical Dysfunction. Introduces medical conditions commonly seen in adult occupational therapy practice. Emphasis is placed on etiology, symptoms, medical intervention and implications for occupational performance. Traditional Lecture/Lab (4 hours)

OT 624. Occupational Therapy: Pediatrics II. Explores conditions commonly seen in middle childhood through adolescence. Identifies the physical, psychological, social and cultural forces that affect children's occupations within the environment. Emphasis is placed on occupational therapy theories/frames of reference, evaluation/intervention and additional aspects of service delivery (e.g., consultation, care coordination and transition processes). Traditional Lecture/Lab (3 hours)

OT 625. Pediatric Fieldwork I. Application of didactic learning to the practice of occupational therapy in the pediatric population. The emphasis is on models of practice, frames of reference, clinical problem-solving and use of evidence in evaluation, intervention, outcomes and written documentation. Traditional Clinical Rotation (2 hours)

OT 626. Occupational Therapy: Adult/Older Adult. Analyzes the physical, psychological, social and cultural forces that affect occupations in adulthood as impacted by the normal aging process. Individual and population service delivery (e.g., consultation, care coordination, transition processes and resource utilization) is examined. Traditional Lecture/Lab (3 hours)

OT 628. Research and Evidence-Based Practice II. Expands upon the conceptual basis established in OT618 for critically appraising 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. Traditional Lecture (2 hours)

OT 629. Research Proposal I. Through small collaborative research teams, students will demonstrate the ability to critically synthesize existing literature on a topic relevant to current clinical practice, service delivery, and/or a professional issue related to occupational therapy. Completion of the literature review occurs under the direction of a faculty advisor. Traditional Lecture (1 hour)

OT 630. Management I: Legal & Ethical Principles. Investigates and applies legal and ethical principles related to occupational therapy practice and administration. Strategies for analyzing and resolving professional dilemmas in service delivery and supervision are introduced and applied. In addition, legal topics including reimbursement, liability issues, malpractice, and business and education law are presented. Professional development planning is introduced. Traditional Lecture (3 hours)

OT 632. Assist Tech & Environmental Adaptation. In-depth study of assistive technology as it impacts participation in occupations. Critical thinking skills are applied to environmental adaptation and the use of assistive technology to enhance occupational performance across all contexts. Advocacy, integration of resources, and consultation are examined as occupational therapy strategies for meeting societal and community needs. Traditional Lecture/Lab (3 hours)

OT 634. Community Health and Wellness. Topics include traditional and emerging practice in the realms of health promotion, prevention, evaluation and intervention in community-based settings. Examines and incorporates new service provision models into programming opportunities which address community needs. Emphasizes the impact of occupational therapy through advocacy, integration of resources, and consultation. Traditional Lecture/Lab (3 hours)

OT 638. Research & Evidence-Based Practice III. Advances skills from OT628 which are necessary for effective evidence-based practice in occupational therapy. Students are also instructed in the research process with an emphasis on methodological approaches and statistical analysis. Traditional Lecture (2 hours)

OT 639. Research Proposal II. Continuation course for OT629. Students demonstrate the ability to synthesize previously reviewed literature to establish a sound methodology for the evaluation of current clinical practice, service delivery, and/or a professional issue related to occupational therapy. The successful completion of a research proposal occurs under the direction of a faculty advisor. Traditional Lecture (1 hour)

OT 640. OT: Psychiatric/Psychosocial. Introduces mental disorders as well as the medical, psychological and sociological factors that influence general health. Examines psychiatric and psychosocial principles within occupational therapy practice, including relevant theories/frames of reference and evaluation/intervention methods. Individual and population service delivery (e.g., consultation, care coordination, transition processes and resource utilization) is emphasized. Traditional Lecture (4 hours)
OT 642. Neurological Principles in OT. Examines neurological conditions and disorders within occupational therapy practice. Theories/frames of reference, evaluation and intervention techniques, and discharge planning are emphasized. Additional aspects of service delivery (e.g., consultation, care coordination, transition processes, and resource utilization) are explored. Traditional Lecture/Lab (3 hours)

OT 644. Orthopedic Principles in OT. Examines orthopedic and other physical dysfunction conditions within occupational therapy practice. Theories/frames of reference, evaluation, intervention techniques and discharge planning are emphasized. Additional aspects of service delivery (e.g., consultation, care coordination, transition processes, and resource utilization) are explored. Traditional Lecture/Lab (3 hours)

OT 645. Physical Dysfunction Fieldwork I. Application of didactic learning to the practice of occupational therapy in physical dysfunction settings. The emphasis is on models of practice, frames of reference, clinical problem-solving and use of evidence in evaluation, intervention, outcomes and written documentation. Traditional Clinical Rotation (2 hours)

OT 646. Case-Based Clinical Reasoning. Application of advanced clinical reasoning within the occupational therapy process; a case analysis approach incorporating evidence and theories/frames of reference is used. Traditional Lecture (3 hours)

OT 649. Research Project I. Implementation of an approved research proposal/protocol under the direction of a faculty advisor. Traditional Lecture (1 hour)

OT 650. Orthoses & Physical Agent Modalities. Application of the principles and evidence related to the fabrication of orthoses and the use of physical agent modalities. Emphasis is on hands-on experience and gaining entry level skills in these adjunctive approaches to occupation-based practice. Traditional Lecture/Lab (3 hours)

OT 652. Specialty Interventions in OT. Analysis and synthesis of specialized interventions along with the advanced exploration of techniques introduced in earlier courses. Traditional Lecture/Lab (3 hours)

OT 654. Mgmt II: Prof Leadership and Admin. Exploration of health systems management, leadership, and professional development. Emphasis is placed on regulatory compliance, reimbursement, and policy development. Examines supervision and staff development with an emphasis on the occupational therapist and occupational therapy assistant roles. Traditional Lecture (3 hours)

OT 655. Psychiatric/Psychosocial Fieldwork I. Application of psychiatric and psychosocial didactic learning to the practice of occupational therapy within traditional, non-traditional and emerging service provision models. The emphasis is on models of practice, frames of reference, clinical problem-solving and use of evidence in evaluation, intervention, outcomes and written documentation. Traditional Clinical Rotation (3 hours)

OT 656. Advanced Experiential Learning Seminar. Preparation to transition from the classroom to full time experiential learning courses (i.e., level II fieldwork and capstone). Students will gain knowledge of the supervisory and mentoring processes, recognize professional expectations for full time experiential learning assignments, and complete a variety of related preparatory steps. Traditional Lecture (1 hour)

OT 658. Research and Evidence-Based Practice IV. Concludes the series of lecture-based research courses. Emphasis in this course is placed on data analysis, synthesis of new evidence and dissemination skills (e.g., presentation and publication). Traditional Lecture (1 hour)

OT 659. Research Project II. Completion of the research project which includes data analysis, synthesis and dissemination with the support of faculty advisor(s). A scholarly report meeting the publication requirements for a peer reviewed manuscript as well as public presentation(s) are required in this course. Traditional Lecture (1 hour)

OT 660. Fieldwork II A. Full-time 12-week clinical experience in which students are responsible for providing services to clients 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 hours)

OT 670. Fieldwork II B. Full-time 12-week clinical experience in which students are responsible for providing services to clients 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 hours)

OT 671. Doctoral Capstone Seminar. An individualized doctoral capstone plan is collaboratively designed between students, capstone coordinator, faculty capstone advisors, and a faculty’s expert capstone mentor(s) to include individualized learning objectives and the initial conception of a culminating capstone project. The culminating capstone project must relate theory to practice, demonstrate a synthesis of advanced knowledge in occupational therapy, and be meaningful to the setting. Additionally, a comprehensive curriculum review for the national board exam and the processes for national certification and state licensure are included. Each student must pass a comprehensive competency examination prior to the commencement of the doctoral capstone experience. Traditional Lecture (3 hours)

OT 680. Doctoral Capstone Experience. Full-time 14-week doctoral capstone experience in which students will achieve specialized skills in one or more of the following areas: clinical practice skills, research skills, administration, leadership, program and/or policy development, advocacy, education, theory development or other innovative practice. Under the supervision of an expert mentor, students will execute their doctoral capstone plan established in OT671 by meeting the individualized objectives and completing a relevant culminating capstone project. Traditional Practicum/Internship (11 hours)

OT 685. Doctoral Capstone Project. Development and dissemination of a capstone portfolio that includes a comprehensive culminating project in a focused area of study. The portfolio is created in consultation with a capstone faculty advisor. The capstone portfolio will display the student’s advanced knowledge in occupational therapy through the integration of curriculum content and specialized knowledge gained during the doctoral capstone experience. Traditional Practicum/Internship (2 hours)
OT 690. Special Topics. With the consent of the department chair, a student may elect to take a 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 hours)

PT 600. Anatomical Basis of Human Movement-PT Pract. 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 (5 hours)

PT 601. Physiologic Basis of Physical Therapy I. The study of human physiology with special emphasis on cardiopulmonary, musculoskeletal, nervous, endocrine, and reproductive systems as well as acid base balance. Prerequisite: PT 600 Traditional Lecture (3 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/Lab (3 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 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 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 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 hours)

PT 607. Anatomical Basis of Human Movement Lab. Dissection laboratory for the study of gross anatomical structure and functions of the human body with emphasis on the musculoskeletal, nervous, cardiovascular, and pulmonary systems. Traditional Laboratory (2 hours)

PT 610. Introduction 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 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 hours)

PT 612. Develop Basis- Functional Movement: 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 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-service, services, and professional socialization. Requisite: Concurrent enrollment in PT 651; Prerequisites: PT 605 and PT 650 Traditional Lecture (3 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 hours)

PT 617. Issues in Community Health & Prevention & Wellness. A synopsis of issues in community health, including epidemiological concepts and community education processes. The role of physical therapists in prevention and promotion of health is examined in relation to frameworks and practice across culturally diverse client populations. Prerequisites: PT603, PT 610, PT 611, PT 640, PT 660. Traditional Lecture (2 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 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 hours)

PT 623. PT Practice Across Client Populations. Exploration of areas of specialty practice within physical therapy to include comprehensive management of the integumentary system, the geriatric population, women's health issues, and management of amputation. Prerequisites: PT 600, PT 605, PT 611, and PT 632. Traditional Lecture/Lab (3 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 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 hours)

PT 632. Principles of Phys Ther Practice II. Physical, electrical, and mechanical modalities used in physical therapy treatment. Prerequisites: PT 601, PT 611, PT 630 Traditional Lecture/Lab (3 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 assessment parameters and treatment as related to the management of patients in acute care settings. Prerequisites: PT 603, PT 620, PT 621 Traditional Lecture/Lab (3 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 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 patient education. Prerequisites: PT 604, PT 605, PT 606, and PT 621 Traditional Lecture/Lab (3 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 orthotic evaluation. Prerequisites: PT 604, PT 605, PT 606, PT 621 Traditional Lecture/Lab (4 hours)

PT 638. Neurological Aspects Phys Ther Pract III. Assessment and treatment of neurological and musculoskeletal dysfunctions presenting in the 0 to 21 years of 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 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 hours)

PT 641. Organizational Syst in 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 Online, Internet, or Web-based Lecture (2 hours)

PT 642. Resource Management in Physical Therapy. Explores the business management of the physical therapy practice. Includes management theory, strategic and operational planning, risk management and quality assurance, business law, human resource management, budgeting, marketing, leadership and communication. Prerequisites: PT 640 and PT 641. Traditional Lecture (3 hours)

PT 650. Clinical Experience I. The first 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 hours)

PT 651. Clinical Experience II. An intermediate 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 hours)

PT 652. Clinical Experience III. The first terminal 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 hours)

PT 653. Clinical Experience IV. The final terminal 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 hours)

PT 660. Evidence-Based Physical Therapy Pract I. Introduction to medical research, including study designs, and methods that are used to support evidence based practice. Familiarize students with the interpretation of descriptive and inferential statistics. Presentation of legal and ethical aspects of human research and the oversight needed to conduct clinical research projects. Traditional Lecture (3 hours)

PT 661. Evidence-Based Physical Therapy Pract II. Enable the application of results from medical research to clinical decision making and advance appreciation of evidence based practice. Critical appraisal and evaluation of various types of evidence to identify the overall quality, potential sources of bias, and how these biases can influence the results. Development of the ability to discern the applicability of research findings to specific patient populations and physical therapist practice. Prerequisite: PT660 Traditional Lecture (2 hours)

PT 664. Research Methodology. I. Engages students in the research process by completing a systematic review of research findings from primary sources. At the completion of this course, students will have partially completed the methodology required for their systematic review project. Prerequisite: PT660. Traditional Lecture (1 hour)
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>PT 665</td>
<td>Research Methodology II. Further engagement in the research process and completion of the systematic review project. The course will discuss written, verbal, and demonstrative methods of disseminating research deliverables within professional venues. The groups’ research projects will be completed and presented at the School of Health Related Professions Research Day. Prerequisites: PT660 and PT664. Traditional Lecture (2 hours)</td>
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<tr>
<td>PT 670</td>
<td>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 hours)</td>
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<tr>
<td>PT 670-01</td>
<td>Advanced Ortho and Sports PT. Elective course with emphasis on the specialty practice of orthopedic and sports physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<tr>
<td>PT 670-02</td>
<td>Neurologic Physical Therapy. Elective course with emphasis on the specialty practice of neurologic physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-03</td>
<td>Pediatric Physical Therapy. Elective course with emphasis on the specialty practice of pediatric physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-04</td>
<td>Advanced Manual Therapy. Elective course with emphasis on the specialty practice of advanced manual therapy techniques in physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-05</td>
<td>Applied Integumentary Concepts in PT. Elective course with emphasis on the specialty practice of management of the integumentary system in physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<tr>
<td>PT 670-06</td>
<td>Alternative PT Management. Elective course with emphasis on the specialty practice of alternative physical therapy interventions. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-11</td>
<td>Intro to Aquatic Rehab. Elective course with emphasis on the specialty practice of aquatic rehabilitation in physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<tr>
<td>PT 670-12</td>
<td>PT and Progressive Neurologic Disorders. Elective course with emphasis on physical therapy management of progressive neurologic disorders. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-13</td>
<td>Applied Concepts in Assistive Technology. Elective course with emphasis on assistive technology in physical therapy practice. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-14</td>
<td>Survey of PT Practice in Oncology. Elective course with emphasis on physical therapy practice in the area of oncology. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-15</td>
<td>Issues in Women’s Health. Elective course with emphasis on the specialty practice of women’s health in physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-16</td>
<td>Research. Elective course with emphasis on the development of research publications related to physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<td>PT 670-17</td>
<td>Human Anatomy. Elective course with emphasis on advanced study of human gross anatomy and its application in physical therapy. Requisite: Good academic standing and permission of the instructor. Elective does not count for credit toward the DPT degree. Traditional Lecture/Lab (2 hours)</td>
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<tr>
<td>PT 670-18</td>
<td>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 hours)</td>
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<td>PT 672</td>
<td>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 hours)</td>
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<td>RAD 300</td>
<td>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 hours)</td>
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<td>RAD 306</td>
<td>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 (4 hours)</td>
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<td>RAD 312</td>
<td>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 hours)</td>
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RAD 318. Principles of Image Formation. 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, factors affecting image quality, imaging accessories, and technique charts. Traditional Lecture (3 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 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 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 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 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 (4 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 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 hours)

RAD 400. Legal and Ethical Issues in Imaging Sci. 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. Online, Internet, or Web-based Lecture (3 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 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 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 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. Online, Internet, or Web-based Lecture (3 hours)

RAD 420. Image Evaluation and Critique. Content provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, discussion of a problem-solving technique for image evaluation, and the factors that can affect image quality. Traditional Lecture (2 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 seen in computed tomography. Online, Internet, or Web-based Lecture (2 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. Online, Internet, or Web-based Lecture (2 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. Online, Internet, or Web-based Lecture (2 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 quality 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 hours)
Additional topics include an overview of considerations when working in an increasingly digital imaging environment. Traditional of the imaging profession. Includes advanced clinical practice skills, image analysis, radiology coding, and imaging informatics.

**RAD 440. Advanced Clinical Management.** A study of the delivery of patient-centered care while exploring the business management of the imaging profession. Includes advanced clinical practice skills, image analysis, radiology coding, and imaging informatics. Additional topics include an overview of considerations when working in an increasingly digital imaging environment. Traditional Lecture (2 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 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 hours)

**RAD 448. Radiographic Procedures IV.** A continuation of RAD 406. Content includes the radiographic anatomy and positioning of the urinary system, reproductive system, central nervous system, as well as the use of advanced radiographic procedures. Traditional Lecture (2 hours)

**RAD 451. Mgmt 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 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 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 (4 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 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 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 hours)

**RAD 472. Seminar I.** An overview of various topics in radiologic sciences. Traditional Lecture (1 hour)

**RAD 475. Seminar II.** A continuation of RAD 472 and provides an overview of various topics in radiologic sciences. Traditional Lecture/Lab (1 hour)

**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 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 MSDH 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 hours)

**RAD 490. Special Topics.** Interdisciplinary elective. Content varies. May be repeated for credit. Prerequisite: Permission of instructor Online, Internet, or Web-based Lecture (1-4 hours)
school of dentistry

The University of Mississippi Medical Center
## 2020-2021 Academic Calendar

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### Notes
- **Memorial Day**
- **Classes begin for D2, D3, D4 and DH4**
- **$100 Late Registration Fee for 2020-2021 Summer Term Effective Today**
- **Mississippi Dental Association Annual Meeting, Perdido Beach Resort, AL**
- **$100 Late Registration Fee for 2020-2021 Summer Term Effective Today**
- **$50 Late Registration Fee for 2020-2021 Fall Semester Effective Today**
- **DH Summer grades due by 5:00 pm**
- **Dental Hygiene-Mid-term grades due**
- **Dental Hygiene - Last day to register or add a course**
- **Final examinations begin**
- **Final examinations end; last day of summer term**
- **Labor Day holiday observed**
- **Classes resume**
- **Dental Hygiene-Mid-term grades due**
- **Dental Hygiene-Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund**
- **Dental Hygiene-Final examinations begin**
- **Dental Hygiene-Final examinations end; last day of summer term**
- **Dental Hygiene-Classes begin**
- **ASDA Recognition Day**
- **$100 Late Registration Fee For 2020-2021 Fall Semester Effective Today**
- **All classes begin D1,D2,D3,D4**
- **CDCA Manikin Exam**
- **Dental Hygiene – Last day to register for the Fall semester**
- **Last day to submit an application for December degree**
- **Dental Hygiene-Last day to add a course**
- **Dental Hygiene-Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund**
- **Labor Day holiday observed**
- **Classes resume**
- **ADA Success Program D1, D2, D3, D4**
- **SEPC D2, D3,D4 Summer term**
- **Dental Hygiene-Orientation for new students**
- **D1 orientation**
- **Deadline for completion of General Orientation**
- **Dental Hygiene-Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund**
- **Dental Hygiene-Final examinations begin**
- **Dental Hygiene-Final examinations end; last day of summer term**
- **Dental Hygiene - Last day to add a course**
- **Dental Hygiene-Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund**
- **Classes resume**
- **Register for 2020-2021 Spring semester**
- **Dental Hygiene-Program Focus Day**
- **Dental Hygiene-Fall break begins at 5:00 pm**
- **Dental-Thanksgiving holidays**
- **Classes resume**
- **Dental Hygiene-Final examinations begin**
- **Dental Hygiene-Final examinations end; Christmas and New Year’s holidays begin at 5:00 pm**
- **Classes resume**
- **$50 Late Registration Fee For 2020-2021 Spring Semester Effective Today**
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<tr>
<th>SPRING SEMESTER</th>
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SCHOOL OF DENTISTRY

David A. Felton, DDS, Dean
Robert Scott Gatewood, DMD, Associate Dean for Academic Affairs
Jason A. Griggs, PhD, Associate Dean for Research
Scott M. Phillips, DMD, Associate Dean for Clinical Affairs
John B. Smith, DMD, Associate Dean for Student Affairs and Admissions
Jennifer Bain, DMD, Assistant Dean for Curriculum and Innovative Teaching Methods

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.
The first dental hygiene class graduated from the School of Health Related Professions (SHRP) in 1972. At that time the program was one of two certificate programs offered in SHRP. Beginning with the class of 1987, graduates were awarded a Bachelor of Science degree. In 2011, the program added an advanced standing online program to allow licensed dental hygienists with a certificate or associate’s degree the opportunity to earn a Bachelor of Science degree. The program moved to the School of Dentistry in 2017.

VISION
The University of Mississippi School of Dentistry will be a nationally recognized center of excellence in dental education, patient care, research, and services in order to improve health outcomes and eliminate dental healthcare disparities for the citizens of Mississippi.

MISSION
The mission of the University of Mississippi School of Dentistry is to foster 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 the State of Mississippi. The School of Dentistry is committed to acquiring and retaining a diverse community of students, residents, fellows, faculty and staff, which exemplifies qualities of leadership and dedication in preparing competent, ethical dental health professionals for the state of Mississippi and who work to improve health outcomes and eliminate health disparities.

PROGRAMS
The School of Dentistry offers the following educational programs: a four year course of instruction leading to the degree of Doctor of Dental Medicine (DMD); a two year course of instruction leading to a Bachelor of Science degree in Dental Hygiene (traditional program); an Advanced Standing Bachelor of Science degree in Dental Hygiene. The Advanced Standing Dental Hygiene program is an online program offered across five semesters for students who have already completed a dental hygiene certificate program.
All School of Dentistry programs are 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.

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
- Collaborative teaching within the Medical Center

Leadership
- Willingness to take responsibility
- Creating a vision, setting goals to make a difference

Research
- Promotion of innovative research by faculty and students

Professionalism
- Ethical conduct, character and spirit for the advancement of our professions
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

- Accepting 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

STUDENT COMPLAINTS

The University of Mississippi School of Dentistry is accredited by the American Dental Association Commission on Dental Accreditation. In accord with the U.S. Department of Education’s Criteria and Procedures for Recognition of Accrediting Agencies, the Commission requires accredited programs to notify students of an opportunity to file complaints with the Commission. The Commission on Dental Accreditation will review complaints from students, patients, staff, or faculty that relate to a program’s compliance with the accreditation standards. The Commission is interested in the sustained quality and continued improvement of dental and dental-related education programs but does not intervene on behalf of individuals or act as a court of appeal for treatment received by patients or individuals in matters of admission, appointment, promotion or dismissal of faculty, staff or students. A copy of the appropriate accreditation standards and/or the Commission’s policy and procedure for submission of complaints may be obtained by contacting the Commission at 211 East Chicago Avenue, Chicago, IL 60611-2678 or by calling 1-800-621-8099 extension 4653. Students with complaints can also contact the School of Dentistry Office of Academic Affairs (601-984-6015), the Office of Student Affairs (601-984-6009), or the UMMC office of Student Affairs (601-984-5012).

DOCTOR OF DENTAL MEDICINE

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. To receive academic accommodations at UMMC, all students must contact the Office of Academic Support and complete the appropriate process.

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 ensure 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.

TUITION AND REQUIRED FEES
Tuition and fees for the current academic year can be found on the institutional website. Tuition is subject to change pending information from the Institutions of Higher Learning (IHL).

An instrument fee of $2,738 will be charged to first-year dental students for the 2020-2021 academic year. The total 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.

SCHOOL TECHNOLOGY/TOOL/SUPPLY REQUIREMENTS
Computers – Entering dental students are required to have a computer that meets certain specifications outlined by the School of Dentistry. 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 to, use of a computer, use of e-mail, use of Internet browsers and use of software for word processing and data backup. Each student will be provided an institutional e-mail account and will be responsible for frequently checking this account and responding to e-mail sent to that address. Please consult the Accepted Applicants information posted on the SOD Student Affairs website for more information.

Privacy Screens - The Health Insurance Portability and Accountability Act (HIPAA) requires the University of Mississippi Medical Center to appropriately safeguard protected health information (PHI). The School of Dentistry, in a reasonable and effective initiative to better protect PHI, requires privacy screens to be installed on computer monitors or other electronic device viewing screens in any public environment in which protected health information is being viewed. In addition, all computer monitors and other electronic device viewing screens should be positioned so that the monitor/viewing screen is facing away from patients or others in the area. Failure to conform to this policy will result in penalties including loss of clinical access/privileges and up to dismissal.

Materials/Supplies – Dental students are provided numerous types of dental materials/supplies during their dental education and some 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 are required to purchase dental articulator, dentoform, laboratory coats and clinic coats as well as other instruments and supplies as specified throughout the course of study. These items are required purchases through the Medical Center bookstore. Required textbooks may be obtained in various electronic or printed versions.

Those who have not purchased the school’s required supplies and 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.

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. A list of required textbooks will be provided to students prior to their first semester. Various options for purchasing print and/or electronic texts will be provided. Those who have not purchased the school’s required supplies and instruments for any semester will not be permitted to begin classes for that semester.
Late Graduates – Senior dental students who go past the last day of clinics/classes in the spring semester as listed on the daily schedule to complete all DENT 675 courses will be charged a fee to continue clinical activities past the date of Commencement. The fee will be one-twelfth of the tuition cost for one year for part or all of each of the following: from the Monday after Commencement through the month of June; for the month of July; from August 1 to the end of the summer session; for the month of September; for each following month or part of a month until all course work is complete and the student is eligible for a degree.

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. Some courses are graded as Pass/Fail.
2. A student must achieve a grade of 70 or more in each course and a grade of Pass in each Pass/Fail graded 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 portal. 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 0-100 scale grade point average, which is derived by:
   a. multiplying the grade in a course by the clock hours of that course; and
   b. by 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 or four point published grade point average is derived by:
   a. multiplying the numerical grade in the 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 and Office of Academic Affairs. 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 to 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.

Due Process – Due process for students is defined in the procedures identified in the Student Handbook.

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.

PROGRAM ADMISSION REQUIREMENTS

The authority to select applicants for admission to the Dental program 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 Dentistry students and other administrative personnel in the various departments at the University of Mississippi Medical Center. All correspondence and records regarding the admissions process are filed in the Office of Student Records and Registrar, become the property of the University of Mississippi Medical Center and cannot be returned or forwarded to the applicant or another school. Applicants and Admission Committee members are required to sign a confidentiality agreement which grants the committee members authority to review all applicant information when making decisions on selection of candidates. All applicant information reviewed shall be confidential.
Selection of applicants is made on a competitive basis, without regard to race, color, religion, sex, age, disability, marital status, national origin, sexual orientation, genetic information, or veteran status. Decision and consideration are given to both cognitive and noncognitive components. Cognitive components include overall GPA, overall science GPA, overall DAT (academic average), overall science DAT and masters GPA, if applicable. Noncognitive components include honesty/integrity, ethics/values, respect for others, critical thinking, communication skills, altruism, motivation for dentistry, accountability, support system, maturity, excellence, vision of practice, participation in Health Careers programs, leadership, self-appraisal and research. Recommendations from college science faculty, dentists that have been shadowed and community service directors are also considered. Multiple mini-interviews with members of the Admissions Committee are required.

For admission purposes, the School of Dentistry 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. As such, the School of Dentistry currently accepts admission applications only from individuals who are U.S. citizens or lawful permanent residents. The School of Dentistry 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, nonresidents have not been considered for admission to DMD program in 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: aadsasinfo@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.

- Begin working on application: May 12, 2020
- Begin submitting application: June 2, 2020
- Application deadline:
  - AADSAS deadline: **SEPTEMBER 23, 2020** (Application, all documentation and fees required by AADSAS must be received by AADSAS.)
  - UMMC School of Dentistry deadline: **OCTOBER 21, 2020** (All application materials, including secondary application, fees, official transcripts and letters of recommendation, must be received.)
- Earliest date of acceptance notification: **DECEMBER 1, 2020**

**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:

- **English**
  - 2 semesters / 3 quarters

- **Inorganic Chemistry**
  - 2 semesters / 3 quarters

- **Organic Chemistry**
  - 2 semesters / 3 quarters

- **Physics**
  - 2 semesters / 3 quarters

- **General Biology or Zoology (I and II)**
  - 2 semesters / 3 quarters

- **Microbiology**
  - 1 semester / 1-2 quarters

(Must include laboratory)
Biochemistry 1 semesters / 1-2 quarters (Must be taken at a four-year institution)
Mathematics 2 semesters/ 3 quarters (College algebra and trigonometry or higher level)
Statistics or Biostatistics 1 semester / 1 quarter (General, business or scientific statistics. This is in addition to one year mathematics requirement.)

PLEASE NOTE: While not required, these courses are highly recommended: foreign language, sociology, psychology, speech, humanities, philosophy, embryology, histology, immunology, cell biology, physiology, comparative anatomy, gross anatomy, neuroanatomy.

There is no time limit on the validity of a baccalaureate degree; however, 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 (course 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.

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).

Program Description
David A. Felton, DDS, MS, Dean of the School of Dentistry
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.

Accreditation Status
All School of Dentistry programs are 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.

Program Objectives
The mission of the University of Mississippi School of Dentistry is to foster 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 the State of Mississippi. The School of Dentistry is committed to acquiring and retaining a diverse community of students, residents, fellows, faculty and staff, which exemplifies qualities of leadership and dedication in preparing competent, ethical dental health professionals for the state of Mississippi and who work to improve health outcomes and eliminate health disparities.

The objectives of the Doctor of Dental Medicine degree below reflect the areas and level of knowledge and action that will prepare a student to be competent in the practice of general dentistry upon graduation.

I. Professionalism and Ethics
  • The new graduate will conduct himself/herself in a professional manner
  • The new graduate will be able to understand the ethical duties and responsibilities to society, the patient, and the dental profession

II. Patient Assessment
  • The new graduate will 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.
  • The new graduate will be able to determine differential, provisional, and definitive diagnoses by interpreting and correlating findings from the history, clinical and radiographic examination, and other diagnostic tests.
• The new graduate will be able to develop, present, and discuss individual treatment plans for patients of all ages, appropriate for the patient’s condition, interest, and capabilities.

III. Patient Management
• The new graduate will be able to communicate with and manage patients effectively.
• The new graduate must be able to manage discomfort and distress of the patient.
• The new graduate will be able to assess patients with dental emergencies and prescribe care for and manage acute dental disease.

IV. Establishment and Maintenance of a Healthy Oral Environment
• The new graduate will be able to provide care for patients of all ages that emphasizes prevention of oral disease and supports the maintenance of systemic and oral health.
• The new graduate will be able to diagnose and treat dental caries.
• The new graduate will be able to diagnose, prevent, treat, manage, and evaluate outcomes of all phases of periodontal disease.
• The new graduate will be able to prevent, treat, and evaluate treatment outcomes of pulpal diseases and subsequent periradicular pathosis.
• The new graduate will be able to diagnose and manage oral and maxillofacial surgical problems and perform routine dentoalveolar surgical procedures.
• The new graduate will be able to recognize and manage orthodontic problems.

V. Restoration of Form, Function, and Esthetics
• The new graduate will be able to understand and use materials in the treatment of patients with dental and orofacial disease.
• The new graduate will be able to design and provide restorations for the treatment of dental disease.
• The new graduate will be able to diagnose and treat uncomplicated conditions of missing teeth to restore and maintain oral function, health, and appearance.

VI. Practice Administration
• The new graduate will be able to develop and assess a practice plan for a general practice.
• The new graduate will be able to demonstrate understanding in business, office, and personnel decisions.

VII. Community Involvement
• The new graduate must have experience in service learning activities and other community based experiences to promote and advance oral health.
• The new graduate will demonstrate knowledge of jurisprudence and risk management.

VIII. Critical Thinking
• The new graduate will be able to acquire and process information intellectually in a critical, scientific, and effective manner.

Degree Completion Requirements
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 numerically graded course, a grade of Pass in each Pass/Fail graded 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. for the class of 2021, achieve an overall score of PASS on the National Board Dental Examination, Part I to be eligible for continuation in 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. for the class of 2021, register and take the National Board Dental Examination Part II during the academic graduating year.
   c. for the class of 2022 and later, students must register for and take the Integrated National Board Dental Examination during the academic graduating year.
   d. discharge all financial obligations to this school; and
   e. 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.
PROGRAM OF STUDY
The curriculum consists of four academic years. Each year contains two semesters (fall and spring) of approximately 18 weeks each; additionally, the second, third, and fourth years 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.

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<thead>
<tr>
<th>DISTRIBUTION OF INSTRUCTION BY SEMESTER HOURS</th>
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<tbody>
<tr>
<td>FIRST YEAR</td>
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<tr>
<td>DENT 600-A Gross Anatomy (Lec)</td>
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<td>DENT 601A Microscopic Anatomy (Lec)</td>
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<td>DENT 601B Microscopic Anatomy (Lab)</td>
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<td>DENT 604 Biochemistry</td>
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<td>DENT 607-1 Basic Life Support I</td>
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<td>DENT 610-1 Perio Diseases-Introduction &amp; Concepts</td>
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<td>DENT 611-1 Service Learning I</td>
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<td>DENT 616-1A Dental Caries I-Amalgam (Lec)</td>
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<td>DENT 616-1B Dental Caries I-Amalgam (Lab)</td>
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<td>DENT 616-2A Esthetic Problems I (Lec)</td>
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<td>DENT 616-2B Esthetic Problems I (Lab)</td>
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<td>DENT 617-1 Biomedical Literature Skills for Case-Based Dentistry</td>
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<td>DENT 619 Materials Science</td>
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<td>DENT 620-1A Dental Morphology and Occlusion (Lec)</td>
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<td>DENT 620-1B Dental Morphology and Occlusion (Lab)</td>
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<td>DENT 622-1 Methods in Problem-Oriented Dentistry I-Oral Diagnosis</td>
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<td>DENT 622-2 Methods in Problem-Oriented Dentistry II-Oral Radiology</td>
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<td>DENT 623-1 Clinical Problem Solving I</td>
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<td>DENT 642-1 Introduction to Dental Ethics</td>
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<td>DENT 644-1 Comprehensive General Dentistry Assessment I</td>
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<tr>
<td>DENT 606-1 Oral Lesions I-Introductory Oral Pathology</td>
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<td>DENT 610-2 Perio Diseases Non-Surgical Therapies</td>
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<td>DENT 611-2 Service Learning II</td>
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<td>DENT 612 Neuroanatomy</td>
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<td>DENT 614-1 Pain, Fear, and Anxiety I Pain Control</td>
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**THIRD YEAR**

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**FOURTH YEAR**

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DENTAL HYGIENE PROGRAM
Elizabeth O. Carr, RDH, DHA, MAADH, Department Chair and Program Director

PROGRAM DESCRIPTION
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.

The Dental Hygiene department offers two programs of study:
The entry-level, traditional baccalaureate program is a dental hygiene program for students who want to earn a dental hygiene license. Upon completion of the five semester, 22-month face-to-face program, students earn a bachelor of science degree and are prepared to apply for and obtain a dental hygiene license.

The dental hygiene advanced standing online program (DHAS program) enables licensed dental hygienists the opportunity to earn a bachelor of science degree in dental hygiene.

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.

PROGRAM OBJECTIVES
The goals of the Dental Hygiene Program are to: strive for professional and educational excellence; provide trained and competent dental hygienists for Mississippi; instill a desire in its students to maintain competence through life-long learning; foster respect for individual differences by providing quality preventive and educational services to the surrounding diverse community.

The objectives below of the Dental Hygiene Program reflect the educational, personal, and professional qualities that are expected of students in the program.
I. Legal
• Understand, respect and function within all local, state and federal laws, rules and regulations.

II. Ethical
• Understand, practice and promote the American Dental Hygienists’ Association’s (ADHA) professional code of ethics in all dental hygiene endeavors.

III. Patient Needs Analysis (Assessment)
• Systematically collect, record and analyze data on the general, oral and psychosocial health status of a variety of patients using methods consistent with medical, legal and ethical principles and practices.

IV. Care Plan (Treatment Plan)
• Employ critical decision making skills to formulate a comprehensive dental hygiene care plan based on all available assessment data and collaboration with the patient and other health care professionals to meet the patient’s dental hygiene needs.

V. Patient Care (Implementation, Evaluation and Documentation)
• Provide each patient with personal dental hygiene care based on assessment, dental hygiene diagnosis, planning, implementation and evaluation to achieve and maintain oral health and wellness. Document care by accurately recording all collected data, treatment planned and provided and other information/recommendations pertinent to patient care and treatment.

VI. Professional Growth
• Promote quality patient care by providing each graduate with the foundation for continuing professional growth, learning and practice founded on evidence-based research and evolving standards of care.

• Enhance the standing of the profession by preparing the graduate for participation in professional and service organizations.

VII. Community Health
• Plan and participate in community oral health activities to promote health and disease prevention of diverse groups.

VIII. Career Opportunity
• Identify and evaluate dental hygiene careers within alternative health-care, industry, education, government and research settings.
BACHELOR OF SCIENCE IN DENTAL HYGIENE

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 Dentistry Dental Hygiene Program 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.

For the traditional program, out-of-state applicants will be considered only if there are positions available after all qualified Mississippi applicants are accepted. For the advanced standing, online program, out-of-state applicants will be considered. The number of students admitted to the Dental Hygiene program is dependent upon the educational resources available to support the program.

The School of Dentistry currently accepts admission applications only from individuals who are U.S. citizens or lawful permanent residents. The School of Dentistry 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.

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 Dentistry 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.

GENERAL APPLICATION PROCEDURE
Applicants for programs in the School of Dentistry Dental Hygiene Program 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. The school reserves the right to consider and accept applications after the established deadline. 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
  Bachelor of Science in Dental Hygiene (Advanced Standing)
  Fall Admission

BACHELOR OF SCIENCE IN DENTAL HYGIENE (Traditional Program)

TECHNICAL STANDARDS FOR ADMISSION
The program admissions committees of the School of Dentistry, 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. Admission criteria do not discriminate against persons with handicapping conditions. However, all candidates must meet minimum technical standards to function successfully as students and later as dental hygiene practitioners. It is the responsibility of the candidate for admission to review the technical standards for admission.

Motor skills: Candidates must demonstrate fine psychomotor skills, coordination, and dexterity adequate to: utilize sharp hand instruments requiring controlled movements of less than one millimeter in order to perform manipulation of dental hygiene instruments in such procedures as exploring, probing, scaling, root planing, polishing, and placement of preventive materials, etc.; operate high or low speed dental handpieces during dental hygiene procedures, requiring controlled movements of less than one millimeter; operate foot controls utilizing fine movements. Candidates must demonstrate physical strength and balance adequate to perform basic life support including CPR, position and reposition self around patient and chair in sitting or standing position, assist with transferring and positioning disabled patients, manage patients who lack motor control position dental equipment including carts and dental chair, and tolerate physically taxing workloads.

Sensory Skills: Candidates must demonstrate sensory abilities adequate to perform visual oral examinations and treatment including use of visual acuity, indirect vision, and color perception; i.e. to discern differences and variation in color, shape and general appearance between normal and abnormal, soft and hard tissues; perform oral examinations and treatment utilizing tactile sense to discern differences through variations in shape, pressure and hardness in hard and soft tissues. Tactile sense may be either direct palpation or indirect through instrumentation.
Cognitive Skills: Candidates must demonstrate adequate mental preparation and ability by a record of successful academic accomplishment indicating the capability to negotiate the dental hygiene curriculum; a record of acceptable accomplishment on a standardized test indicating the ability to utilize background knowledge and synthesis of that knowledge in developing knowledge or creative concepts and/or interpretation.

Communication Skills: Candidates must demonstrate communication skills adequate to speak, hear and observe patients; elicit information; describe changes in mood, activity and posture; perceive nonverbal communication; and convey or exchange information at a level allowing one to develop and record health history; identify problems presented by the patient, explain alternative solutions to the problems and give directions during treatment and for post-treatment and home care; communicate effectively and efficiently in written and oral form with patients, colleagues, and all members of the health care team, and in written and spoken English in classroom, laboratory, and clinical settings. Verbal and written communication skills are vital to success in the academic programs in the School of Dentistry; 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.

Interpersonal Skills: Candidates must demonstrate a capability for developing interpersonal skills adequate to manage apprehensive patients with a range of moods and behaviors in a tactful, congenial, personal manner so as not to alienate or antagonize them. Candidates must demonstrate ability to function effectively under stress, adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in the clinical problems of patients.

TUITION AND REQUIRED FEES
Tuition and fees for the current academic year can be found on the institutional website. Tuition is subject to change pending information from the Institutions of Higher Learning (IHL).

SCHOOL TECHNOLOGY/TOOL/SUPPLY REQUIREMENTS
Entering dental hygiene students are required to have a laptop computer that meets specifications outlined by the School of Dentistry Department of Dental Hygiene. In addition to tuition, fees, health insurance and professional association dues, students should be prepared to spend $3200 the first year and $1000 the second year for books, uniforms, as well as other instruments and supplies as specified throughout the course of study. Students should be prepared to spend approximately $2400 for licensure testing fees during the second year.

ACADEMIC REGULATIONS
The regulations published in the Bulletin are a digest of the rules of the University and School of Dentistry Dental Hygiene Program. 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 Dentistry Dental Hygiene Program 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. 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 Dentistry Dental Hygiene Program 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-less than 90; “C” - Average, 75-less than 80; “D” - Below average, 70-less than 75; “F” - Failure, below 70. The quality point value of each letter grade is A-4; B-3; C-2; D-1; and F-0.

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. If the student is still not satisfied, the department chair and/or dean’s office will review the action of the program director and/or department chair to see if the grade being challenged was appropriately assessed. If, in the opinion of the program director, department chair and/or the dean’s office, deficiencies in instruction are so grave as to warrant such a change, the proper remedy will usually involve alternative assignments or examinations to allow the student the opportunity to demonstrate the appropriate level of competency in that area in order to earn a different grade than the grade originally assigned. The decision of the dean’s office is final.

Grade Forgiveness – Grade forgiveness is separated into two categories:
1. Admission Forgiveness (i.e., prerequisite GPA calculations); and
2. Progression Forgiveness (i.e., repeated SOD dental hygiene curriculum coursework).

The Dental Hygiene Program allows for admission forgiveness but not progression forgiveness.

Repeat Courses – A repeated course is defined as the opportunity for a student to repeat a single course within a program without readmission or reclassification. However, due to the complexity of the curriculum, the school allows for, but does not mandate, repeat courses within the program. Repeat courses require approval of the program chair and academic dean. The following guidelines are followed for repeat courses:
1. A student must obtain written approval from the department chair and academic dean to repeat a course.
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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.
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PROGRAM DESCRIPTION
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 general admission requirements above, candidates seeking admission to the Dental Hygiene 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 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>Medical Terminology</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total Prerequisites</strong></td>
<td><strong>60</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 the next academic year’s fall admission. General application information may be found in the General Application Procedures section above.

DEGREE COMPLETION
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. 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 Dentistry with the appropriate overall cumulative grade point average on all work at the University of Mississippi Medical Center:

PROGRAM OF STUDY

<table>
<thead>
<tr>
<th>PROGRAM OF STUDY</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>JUNIOR YEAR - FALL</td>
<td>16</td>
</tr>
<tr>
<td>DH 309 Dental Anatomy and Occlusion</td>
<td>2</td>
</tr>
<tr>
<td>DH 312 Primary Preventive Dentistry</td>
<td>3</td>
</tr>
<tr>
<td>DH 313 Radiology I</td>
<td>2</td>
</tr>
<tr>
<td>DH 315 Oral Histology &amp; Embryology</td>
<td>2</td>
</tr>
<tr>
<td>DH 317 Medical Emergencies in the Dental Office</td>
<td>2</td>
</tr>
<tr>
<td>DH 321 Head &amp; Neck Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>DH 332 Scientific Foundations in DH</td>
<td>3</td>
</tr>
<tr>
<td>JUNIOR YEAR – SPRING</td>
<td>13</td>
</tr>
<tr>
<td>DH 302 Principles and Practice I</td>
<td>3</td>
</tr>
<tr>
<td>DH 305 Dental Hygiene Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>DH 316 Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>DH 328 Radiology II</td>
<td>2</td>
</tr>
<tr>
<td>DH 331 Periodontics I</td>
<td>2</td>
</tr>
<tr>
<td>SENIOR YEAR – SUMMER</td>
<td>8</td>
</tr>
<tr>
<td>DH 326 Principles and Practice II</td>
<td>2</td>
</tr>
<tr>
<td>DH 327 Patient Care I</td>
<td>2</td>
</tr>
<tr>
<td>DH 406 Dental Public Health I</td>
<td>1</td>
</tr>
<tr>
<td>DH 407 Pharmacology I</td>
<td>1</td>
</tr>
<tr>
<td>DH 420 Pain &amp; Anxiety Management</td>
<td>2</td>
</tr>
<tr>
<td>SENIOR YEAR - FALL</td>
<td>13</td>
</tr>
<tr>
<td>DH 405 Patient Care II</td>
<td>3</td>
</tr>
<tr>
<td>DH 408 Pharmacology II</td>
<td>2</td>
</tr>
<tr>
<td>DH 409 Dental Public Health II</td>
<td>2</td>
</tr>
<tr>
<td>DH 416 Oral Pathology</td>
<td>2</td>
</tr>
<tr>
<td>DH 417 Evidence-Based Dental Hygiene I</td>
<td>1</td>
</tr>
<tr>
<td>DH 418 Principles &amp; Practice III</td>
<td>2</td>
</tr>
<tr>
<td>DH 431 Periodontics II</td>
<td>1</td>
</tr>
<tr>
<td>SENIOR YEAR - SPRING</td>
<td>13</td>
</tr>
<tr>
<td>DH 413 Public Health Dentistry III</td>
<td>1</td>
</tr>
<tr>
<td>DH 423 Biomaterials in Dentistry</td>
<td>2</td>
</tr>
<tr>
<td>DH 433 Patient Care III</td>
<td>4</td>
</tr>
<tr>
<td>DH 444 Practice Management &amp; Specialties</td>
<td>4</td>
</tr>
<tr>
<td>DH 445 Evidence-Based DH II</td>
<td>1</td>
</tr>
<tr>
<td>DH 446 Case Studies</td>
<td>1</td>
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<tr>
<td>Total Required Hours</td>
<td>63</td>
</tr>
</tbody>
</table>
BACHELOR OF SCIENCE IN DENTAL HYGIENE (Advanced Standing)

TECHNICAL STANDARDS FOR ADMISSION

The program admissions committees of the School of Dentistry, 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. Admission criteria do not discriminate against persons with handicapping conditions. However, all candidates must meet minimum technical standards to function successfully as students and later as dental hygiene practitioners. It is the responsibility of the candidate for admission to review the technical standards for admission.

Motor skills: Candidates must demonstrate fine psychomotor skills, coordination, and dexterity adequate to: utilize sharp hand instruments requiring controlled movements of less than one millimeter in order to perform manipulation of dental hygiene instruments in such procedures as exploring, probing, scaling, root planing, polishing, and placement of preventive materials, etc.; operate high or low speed dental handpieces during dental hygiene procedures, requiring controlled movements of less than one millimeter; operate foot controls utilizing fine movements. Candidates must demonstrate physical strength and balance adequate to perform basic life support including CPR, position and reposition self around patient and chair in sitting or standing position, assist with transferring and positioning disabled patients, manage patients who lack motor control position dental equipment including carts and dental chair, and tolerate physically taxing workloads.

Sensory Skills: Candidates must demonstrate sensory abilities adequate to perform visual oral examinations and treatment including use of visual acuity, indirect vision, and color perception; i.e. to discern differences and variation in color, shape and general appearance between normal and abnormal, soft and hard tissues; perform oral examinations and treatment utilizing tactile sense to discern differences through variations in shape, pressure and hardness in hard and soft tissues. Tactile sense may be either direct palpation or indirect through instrumentation.

Cognitive Skills: Candidates must demonstrate adequate mental preparation and ability by a record of successful academic accomplishment indicating the capability to negotiate the dental hygiene curriculum; a record of acceptable accomplishment on a standardized test indicating the ability to utilize background knowledge and synthesis of that knowledge in developing knowledge or creative concepts and/or interpretation.

Communication Skills: Candidates must demonstrate communication skills adequate to speak, hear and observe patients; elicit information; describe changes in mood, activity and posture; perceive nonverbal communication; and convey or exchange information at a level allowing one to develop and record health history; identify problems presented by the patient, explain alternative solutions to the problems and give directions during treatment and for post-treatment and home care; communicate effectively and efficiently in written and oral form with patients, colleagues, and all members of the health care team, and in written and spoken English in classroom, laboratory, and clinical settings. Verbal and written communication skills are vital to success in the academic programs in the School of Dentistry; 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.

Interpersonal Skills: Candidates must demonstrate a capability for developing interpersonal skills adequate to manage apprehensive patients with a range of moods and behaviors in a tactful, congenial, personal manner so as not to alienate or antagonize them. Candidates must demonstrate ability to function effectively under stress, adapt to changing environments, display flexibility, and learn to function in the face of uncertainties inherent in the clinical problems of patients.

TUITION AND REQUIRED FEES

Tuition and fees for the current academic year can be found on the institutional website. Tuition is subject to change pending information from the Institutions of Higher Learning (IHL).

SCHOOL TECHNOLOGY/TOOL/SUPPLY REQUIREMENTS

In addition to tuition and required fees, advanced standing students should be prepared to spend approximately $215 per year for textbooks. While no fee exists for proctored testing at UMMC, students may be asked to pay a fee if using a site at one of the state’s other proctoring centers. Proctoring fees can range from $20 to $50 per exam at off campus sites.

ACADEMIC REGULATIONS

The regulations published in the Bulletin are a digest of the rules of the University and School of Dentistry Dental Hygiene Program. 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 Dentistry Dental Hygiene Program 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. 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.
Standard of Honesty – The School of Dentistry Dental Hygiene Program 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-less than 90; "C" - Average, 75-less than 80; "D" - Below average, 70-less than 75; "F" - Failure, below 70. The quality point value of each letter grade is A-4; B-3; C-2; D-1; and F-0.

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. If the student is still not satisfied, the department chair and/or dean’s office will review the action of the program director and/or department chair to see if the grade being challenged was appropriately assessed. If, in the opinion of the program director, department chair and/or the dean’s office, deficiencies in instruction are so grave as to warrant such a change, the proper remedy will usually involve alternative assignments or examinations to allow the student the opportunity to demonstrate the appropriate level of competency in that area in order to earn a different grade than the grade originally assigned. The decision of the dean’s office is final.

Grade Forgiveness – Grade forgiveness is separated into two categories:

- Admission Forgiveness (i.e., prerequisite GPA calculations); and
- Progression Forgiveness (i.e., repeated SOD dental hygiene curriculum coursework).

The Dental Hygiene Program allows for admission forgiveness but not progression forgiveness.

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**PROGRAM DESCRIPTION**

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 outlined above, candidates seeking admission to the advanced standing dental hygiene program must:

1. Have completed a minimum of 60 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;
   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 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\(^3\) | 2 | 6
Electives | 30 | 
**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.

**PROGRAM APPLICATION DEADLINE**

All application documents and application fees must be received by the Office of Student Records and Registrar by June 15 for fall admission. General application information may be found in the General Application Procedures section above. 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.

**DEGREE COMPLETION REQUIREMENTS**

Requirements

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.

Students enrolled in the Advanced Standing Online Program

**PROGRAM OF STUDY**

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>DH 303 Professional Writing</td>
<td>3</td>
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<tr>
<td>DH 311 Current Trends in Preventive Care</td>
<td>3</td>
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<tr>
<td>DH 319 Pathophysiology/Special Needs Patients</td>
<td>4</td>
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<tr>
<td>DH 401 Research Methods</td>
<td>3</td>
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<tr>
<td>DH 412 Pharmacology</td>
<td>3</td>
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<td>DH 428 Dental Hygiene Case Studies</td>
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<tr>
<td>DH 430 Advanced Practice Management</td>
<td>3</td>
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<tr>
<td>DH 434 Dental Hygiene Practices</td>
<td>2</td>
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<tr>
<td>DH 440 Community Dental Health</td>
<td>4</td>
</tr>
<tr>
<td>DH 455 Capstone Study*</td>
<td>4</td>
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</tbody>
</table>

**Total Required Hours** | 33

*Upon the successful completion of DH455, 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.

**COURSES OF INSTRUCTION**

**DENT 600A. Human Gross Anatomy Lecture.** Explanation of hard-to-understand topics with 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. Traditional Lecture (4 hours)

**DENT 600B. Human Gross Anatomy Lab.** 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. Traditional Laboratory (7 hours)

**DENT 601A. Human Micro Anatomy Lecture.** A didactic component consisting 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. Traditional Lecture (3 hours)

**DENT 601B. Human Micro Anatomy Lab.** A hands-on microscopic course consisting 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. Traditional Laboratory (4 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. Traditional Lecture (6 hours)
DENT 606-1. Oral Lesions I. An introduction for dental students to Oral and Maxillofacial Pathology, the study of disease processes that affect oral and paroral 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. Traditional Lecture (3 hours)

DENT 606-2. Oral Lesions II. Clinical pathological conferences in which various disease processes involving both the soft and hard tissues of the oral and paroral environs 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. Traditional Lecture (2 hours)

DENT 607-1. Basic Life Support I. 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. Traditional Lecture (1 hour)

DENT 607-2. Basic Life Support II/Medical Emergencies. This course is designed to teach the student to perform 1 and 2 person rescuer Adult cardiopulmonary resuscitation (CPR) including use of an Automated External Defibrillator (AED), 1 and 2 person rescuer Infant cardiopulmonary resuscitation, and to render first aid to choking victims. The course is also designed to teach the student the established protocol for common medical emergencies in the dental setting. Traditional Lecture (2 hours)

DENT 610-1. Perio Diseases-Introduction & Concepts. Introduction to 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 if 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 dentoform wa then take those skills and treat actual patients as part of a rotation into the periodontics clinic. Traditional Lecture (2 hours)

DENT 610-2. Perio Diseases-Non Surgical Therapies. Periodontal decision-making and non-surgical therapies. Students are given preparatory information 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. Traditional Lecture (3 hours)

DENT 610-3. Perio Diseases-Adv & Surgical Therapies. A study of 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 address in lectures and in the simulation laboratory. Traditional Lecture (3 hours)

DENT 611-1. Service Learning I. This course is a full week of service learning for all four dental classes. It consists of providing free dental services to patients from the state’s free dental clinics and shelters that provide for homeless men, women, and children. Immediate treatment will be given to the patients’ chief complaints in an effort to relieve any pain. Adults will receive free preventive dental treatment, amalgam restorations, extractions, anterior endodontics, and complete dentures. Dental as well as hygiene students will be directly involved with providing dental preventive and restorative services commensurate with their level of education. The week concludes with Give Kids a Smile day where children from three public schools in the area are given free examinations, cleanings, sealants, and referrals if necessary. Traditional Lecture (4 hours)

DENT 611-2. Service Learning II. This course is a full week of service learning for all four dental classes. It consists of providing free dental services to patients from the state’s free dental clinics and shelters that provide for homeless men, women, and children. Immediate treatment will be given to the patients’ chief complaints in an effort to relieve any pain. Adults will receive free preventive dental treatment, amalgam restorations, extractions, anterior endodontics, and complete dentures. Dental as well as hygiene students will be directly involved with providing dental preventive and restorative services commensurate with their level of education. The week concludes with Give Kids a Smile day where children from three public schools in the area are given free examinations, cleanings, sealants, and referrals if necessary. Traditional Lecture (4 hours)

DENT 611-3. Service Learning III. This course is a full week of service learning for all four dental classes. It consists of providing free dental services to patients from the state’s free dental clinics and shelters that provide for homeless men, women, and children. Immediate treatment will be given to the patients’ chief complaints in an effort to relieve any pain. Adults will receive free preventive dental treatment, amalgam restorations, extractions, anterior endodontics, and complete dentures. Dental as well as hygiene students will be directly involved with providing dental preventive and restorative services commensurate with their level of education. The week concludes with Give Kids a Smile day where children from three public schools in the area are given free examinations, cleanings, sealants, and referrals if necessary. Traditional Lecture (4 hours)

DENT 611-4. Service Learning IV. This course is a full week of service learning for all four dental classes. It consists of providing free dental services to patients from the state’s free dental clinics and shelters that provide for homeless men, women, and children. Immediate treatment will be given to the patients’ chief complaints in an effort to relieve any pain. Adults will receive free preventive dental treatment, amalgam restorations, extractions, anterior endodontics, and complete dentures. Dental as well as hygiene students will be directly involved with providing dental preventive and restorative services commensurate with their level of education. The week concludes with Give Kids a Smile day where children from three public schools in the area are given free examinations, cleanings, sealants, and referrals if necessary. Traditional Lecture (4 hours)

DENT 612. Neuroanatomy. A study of 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 didactic, small group active learning sessions, and 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. 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. Traditional Lecture (3 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. Alleviation 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, video tapes, and demonstrations. Traditional Lecture (2 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. Traditional Lecture (2 hours)

DENT 616-1A. Dental Caries I, Lecture. An introductory lecture course in operative dentistry. Detection and resolution of dental caries by conservative operative dentistry methods is presented. The theory of operative dentistry, principles of cavity preparation, instruments and restorative materials are covered in this course. Traditional Lecture (3 hours)

DENT 616-1B. Dental Caries I, Lab. A laboratory component 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. Traditional Laboratory (7 hours)

DENT 616-2A. Esthetic Problems I Lec. A continuation of Dental Caries IA. This lecture component 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. Traditional Lecture (2 hours)

DENT 616-2B. Esthetic Problems I Lab. A continuation of Dental Caries IB. This laboratory component 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. Traditional Laboratory (3 hours)

DENT 616-3A. Dental Caries III - Indirect Rest Lec. The lecture component that introduces the student to the preparation and restoration of teeth with pin retained complex amalgam restorations and single unit indirect metal crowns, covering all elements of preparation design and material selection for these type restorations. Traditional Lecture (1 hour)

DENT 616-3B. Dental Caries III - Indirect Rest Lab. The laboratory component 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 is also introduced. Traditional Laboratory (5 hours)

DENT 616-4A. Preclinical Pediatric Dentistry Lec. A didactic component 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. Traditional Lecture (1 hour)

DENT 616-4B. Preclinical Pediatric Dentistry Lab. The laboratory component where students perform basic restorative procedures on a pediatric typodont. There are daily projects to be turned in as well as a laboratory practical exam. Traditional Laboratory (2 hours)

DENT 616-5A. Indirect Esthetic Restoration & Digital. An introduction to esthetic preparation guidelines for indirect restorations using CAD/CAM technologies. Traditional Lecture (1 hour)

DENT 616-5B. Indirect Esthetic Restoration & Digital. An introduction to fabrication techniques for indirect restorations using CAD/CAM technologies. Traditional Laboratory (2 hours)

DENT 617-1. Intro Biomed Lit Skills Case-Based Den. Assistance is given to 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. Traditional Lecture (1 hour)

DENT 617-2. Adv Biomed Lit Skills for Case-Based Den. 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. Traditional Lecture (1 hour)

DENT 618-1A. Preclinic Complete Denture Pros Lecture. The etiology of edentulism along with anatomic, physiologic, and socioeconomic 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. Traditional Lecture (2 hours)

DENT 618-1B. Preclinical Complete Denture Pros. Lab. Students get experience fabricating custom impression trays for impressions, making record bases and occlusion rims, and subsequently mounting casts and setting and arranging several different occlusal schemes for complete denture fabrication. Traditional Laboratory (6 hours)

DENT 618-2A. Preclinical Fixed Prosthodontics Lec. Presentation of information regarding tooth preparations for full coverage crowns. Traditional Lecture (2 hours)

DENT 618-2B. Preclinical Fixed Prosthodontics Lab. Students practice tooth preparations for full coverage metal-ceramic and all-ceramic restorations on typodont teeth. Traditional Laboratory (5 hours)

DENT 618-3A. Preclin Removable Part Dent Prosth Lec. Review of problems of the partially edentulous patient. 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. Traditional Lecture (1 hour)
DENT 618-3B. Preclin Removable Part Dent Prosth Lab. Practice in the preclinical laboratory in 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. Traditional Laboratory (3 hours)

DENT 618-6A. Fixed Prosthodontics Topics Lec. A lecture component covering topics associated with fixed partial denture prosthesis (i.e. rationale, materials, techniques, preparation, and delivery procedures). Traditional Lecture (2 hours)

DENT 618-6B. Fixed Prosthodontics Topics Lab. A laboratory component which complements 618-6A. Traditional Laboratory (1 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 materials in vivo 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 materials science which will be presented in other preclinical courses within the curriculum. Traditional Lecture (3 hours)

DENT 620-1A. Dent Morph and Occlusion Lec. A lecture course introducing the student to dental terminology and presenting 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. Traditional Lecture (3 hours)

DENT 620-1B. Dent Morph and Occlusion Lab. A laboratory course introducing students to the reproduction in wax of the accurate morphological characteristics of the permanent teeth and establishing normal intra-arch and inter-arch tooth relationships. Students must also identify teeth (dry specimens). Traditional Laboratory (5 hours)

DENT 621-A. Occlusal Disorders, Lecture. Presentation of information 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 dentists are 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 occlusion. Students are presented information on centric relation techniques and appropriate cases to utilize the techniques. Traditional Lecture (1 hour)

DENT 621-B. Occlusal Disorders, Lab. A laboratory and clinical based course with the overall objective of fabricating a flat plane splint on partners and understanding how these are adjusted intra-orally to help correct some of the disorders presented in 621-A. 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. Finally, the students are exposed to techniques for occlusal adjustments and selective grinding procedures. Traditional Laboratory (2 hours)

DENT 622-1. Methods in Problem-Oriented Dentistry I. An introduction 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’ data-base, and an overview of the activities in the different dental school clinics. Traditional Lecture (5 hours)

DENT 622-2. Methods in Problem-Oriented Dentistry II. Rotation through the Oral Radiology Clinic for purposes of making, processing, mounting, and interpreting oral radiographs. Traditional Lecture (1 hour)

DENT 622-4. Methods IV- Practice Administration. The course is designed to provide basic information to the senior dental student on various topics important for the new dentist in managing his/her professional career and personal life. Topics presented cover a wide area of subjects but time limitations will not permit in-depth coverage. The course will primarily be presented by lectures. There will be exercises that will cover topics discussed. Lecturers from outside the school will participate in the course and present information in their areas of expertise. Traditional Lecture (4 hours)

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 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. Traditional Lecture (5 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. Traditional Lecture (11 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 D1 or D2 student with becoming familiar with team patient care, the problem-oriented dental record, departmental clinical protocols, and chairside assisting. Daily clinical activity and clinic utilization also must have passing grades in order to pass the CPS course. Traditional Lecture (11 hours)

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 some departmental guidelines. 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 activity and clinic utilization and also must have a passing grade in order to pass the CPS course. Traditional Lecture (10 hours)

DENT 624A. Implant Dentistry Lec. 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. Traditional Lecture (1 hour)

DENT 624B. Implant Dentistry Lab. Hands-on experience with placement and restorative procedures for non-complex implant supported crowns and dental prostheses. Traditional Laboratory (1 hour)

DENT 625. Physiology. Provides 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. Traditional - EL Lecture (8 hours)

DENT 626. Pharmacology. Introduction 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. Traditional Lecture (5 hours)

DENT 629. Behavioral Disorders I. A focus on behavioral dentistry, and as such, 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 and demonstration. Traditional Lecture (1 hour)

DENT 630-1A. Pulpal Disorders I - Endodontics Lec. 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. Traditional Lecture (3 hours)

DENT 630-1B. Pulpal Disorders I - Endodontics Lab. 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. Traditional Laboratory (5 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. Traditional - EL Lecture (1 hour)

DENT 633-2. Behavioral Disorders II: Pediatric Pat. An introduction 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. Traditional Lecture (1 hour)

DENT 637. Pathology. A 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. Traditional - EL Lecture (4 hours)

DENT 639-1. Basic Principles of OMS and Systemic Med. 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. Management of infection, simple and complex exodontia, pre-prosthetic surgery, implants and bone grafting, post-operative care and complications are discussed and demonstrated. A review of systemic medical conditions and their impact of compromising medical problems on dental care are discussed in detail. The new graduate must be able to perform a history and physical examination, determine a differential, provisional and definitive diagnosis by interpreting and correlating findings from history, clinical and radiographic examination and other diagnostic tests as well as diagnose, treat and manage oral maxillofacial surgical problems. Traditional Lecture (3 hours)

DENT 639-2. Adv Topics in Oral-Maxillofacial Surgery. Application of 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. Traditional Lecture (2 hours)

DENT 641. Microbiology and Immunology. 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, simulations and examinations. Traditional Lecture (4 hours)
DENT 642-1. Introduction to Dental Ethics. An introduction to dental ethics designed to allow the student 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. Traditional Lecture (1 hour)

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. Traditional Lecture (1 hour)

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. Traditional Lecture (1 hour)

DENT 643-1. Orthodontics I. Fundamentals of orthodontics and complementary topics. 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. Traditional Lecture (3 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. Traditional Lecture (2 hours)

DENT 644-4. Community Outreach Dental Externship. The Community Outreach Dental Externship (CODE) is a six to eight (24 day) off-campus rotation for senior dental students. This program is designed to complement the student’s clinical activities at the School of Dentistry and to provide additional clinical experiences regarding dental procedures, business operations and interactions with the dental office personnel. The off-campus rotation sites are primarily private dental offices with the supervising dentist being Clinician-Educators affiliated with the School of Dentistry. Students are expected to be present during the normal office working hours three or four days per week at the off-site office, returning to provide care for their patients of record at the School of Dentistry the remaining day(s) of the week. It is recommended that students complete specified rotation goals prior to being permitted to participate in the program. Students will be granted credit toward the School of Dentistry’s program requirements for a specified number of the procedures completed at these sites and approved by the respective department chair or clinic coordinator. Traditional Clinical Rotation (13 hours)

DENT 645. Advanced Topics. A review of clinical disciplines to help identify the students’ strengths and weaknesses regarding basic concepts. Integration of all clinical disciplines are presented concurrently. Students’ abilities to approach patient care integrating knowledge from all disciplines during diagnosis, treatment planning, treatment, and outcomes evaluations should be improved. New concepts, techniques, and materials are presented. Traditional Lecture (1 hour)

DENT 646-1. Socioeconomic Factors I. An introduction to the philosophy of scientific reasoning, including biostatistics, epidemiology and research methodology. 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. Traditional Lecture (1 hour)

DENT 646-2. Socioeconomic Factors II. A survey of 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. Traditional Lecture (1 hour)

DENT 647. Evidence Based Dentistry. Provides the student with an understanding of what constitutes good research in an effort to promote Evidence-Based Dentistry (EBD). The main objective of this course is to develop the ability to weigh the relative merits of different types of evidence. 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. Traditional Lecture (3 hours)

DENT 649-1. Comprehensive General Dent Assessment I. This course is designed to provide a comprehensive assessment of the dental students’ knowledge of the content taught during the first year of dental school. Students will receive an orientation to the course in addition to the assessment. The assessment will integrate the biomedical sciences and clinical sciences of dentistry taught during the first year of dental school. Traditional Lecture (1 hour)

DENT 649-2. Comprehensive General Dent Assessment II. This course is designed to provide a comprehensive assessment of the dental students’ knowledge of the content taught during the first and second years of dental school. Students will receive an orientation to the course in addition to the assessment. The assessment will integrate the biomedical sciences and clinical sciences of dentistry taught during the first and second years of dental school. Traditional Lecture (1 hour)

DENT 649-3. Comprehensive General Dent Assessment III. This course is designed to provide a comprehensive assessment of the dental students’ knowledge of the content taught during the first three years of dental school. Students will receive an orientation to the course in addition to the assessment. The assessment will integrate the biomedical, behavioral, and clinical sciences of dentistry taught during the first three years of dental school. Traditional Lecture (1 hour)

DENT 649-4. Comprehensive General Dent Assessment IV. This course is designed as a comprehensive assessment of a D4 student’s readiness to enter the practice of general dentistry. It will encompass all clinical disciplines as well as the legal aspects of practicing dentistry in Mississippi. Components of the assessment will include: an oral presentation of a patient case comprehensively treated by the student; assessment and treatment planning of multiple standardized patient cases; a jurisprudence exam based on the Mississippi Dental Practice Act. Traditional Lecture (1 hour)
DENT 675-1. Admissions. A clinical based course developing the skills of interviewing patients, ascertaining 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. Traditional - EL Clinical Rotation (1 hour)

DENT 675-10. Acute Illness. Clinical experience in management of patients with emergent dental conditions. Students gain experience in provision of appropriate dental care, consultation with other providers, understanding current medications and interactions, and modification of treatment as needed in each individual case. Traditional - EL Clinical Rotation (6 hours)

DENT 675-11. Comprehensive Patient Care. An assessment of the D4 students’ ability to provide comprehensive treatment to their patients during their years of clinical patient care. Traditional - EL Clinical Rotation (1 hour)

DENT 675-12. D4 General Dentistry Assessment. This course is designed as a comprehensive assessment of a D4 student’s readiness to enter the practice of general dentistry. It will encompass all clinical disciplines as well as legal aspects of practicing dentistry in Mississippi. Traditional Clinical Rotation (1 hour)

DENT 675-2. Oral Pathology/Radiology. Instruction and practice in how to properly prescribe and make intra-oral and extra-oral radiographs and how to interpret radiographic images and construct a differential diagnosis of pathology visualized on these radiographic images. Traditional - EL Clinical Rotation (5 hours)

DENT 675-3. Orthodontics. This course is designed to introduce the dental student to clinical orthodontics. The student treats two orthodontic cases, presents two case presentations and recognizes how to manage orthodontic problems. Traditional - EL Clinical Rotation (4 hours)

DENT 675-4. Oral & Maxillofacial Surgery. Provides the student with 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. Traditional - EL Clinical Rotation (4 hours)

DENT 675-5A. Pediatric Dentistry. Clinical experience in managing and treating pediatric dental patients. It is expected that patients are treated comprehensively following an appropriately sequenced treatment plan that has been approved. 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. Traditional Clinical Rotation (4 hours)

DENT 675-5B. Advanced Experiences in Pediatric Dent. A clinical rotation focused on providing essential experiences in management of a diverse patient population. Students are allowed to interact and gain experience in management of pediatric patients that present at the Blair E Batson 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. Traditional Clinical Rotation (4 hours)

DENT 675-6. Periodontics. Students gain extensive clinical experience in periodontal evaluation, decision-making, non-surgical managements, surgical managements and health maintenance. Additionally, they are required to occasionally mentor first and second year students during Tuesday morning rotations. Traditional - EL Clinical Rotation (12 hours)

DENT 675-7A. Operative Dentistry. Instruction in how to diagnose, plan, and treat patients by utilizing direct filling materials such as amalgam, composite and glass ionomer type restorations. Traditional - EL Clinical Rotation (16 hours)

DENT 675-7B. Fixed Prosthodontics. Instruction in how to diagnose, plan, and treat patients needing fixed restorations (inlays, onlays, crowns, and fixed partial dental prostheses) Traditional - EL Clinical Rotation (14 hours)

DENT 675-7C. Removable Prosthodontics. 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). Traditional - EL Clinical Rotation (10 hours)

DENT 675-7D. Endodontics. Allows students clinical experience in diagnosis and treatment of pulpal/periradicular disease and assessing outcomes of endodontic treatment. Traditional - EL Clinical Rotation (5 hours)
DENT 679. Mission First. Clinical rotation where D4 students gain experience treating patients in an inner-city volunteer clinic serving the Greater Jackson area. Students treat an underserved population under the supervision of licensed dentists. Traditional Clinical Rotation (1 hour)

DENT 697-1. Review of Head and Neck Anatomy. An opportunity to dissect and/or review the anatomy of the head and neck with special emphasis the anatomical basis for clinical procedures, including local anesthesia. Students will also review recent articles concerning clinical anatomy research. Traditional Lecture (1-3 hours)

DENT 697-10. Endodontic Externship. An experience of advanced endodontics through the observation of a graduate endodontic residency program at another school. The student will be exposed to treatment planning, literature review, and case presentation seminars with additional clinical exposure to advanced endodontic treatment techniques Traditional Lecture (1-3 hours)

DENT 697-12. Private Practice Externship Elective. An externship that allows a student to experience a variety of private practice environments that he/she may be considering as a career. The student must have completed all prerequisites, competences, and goals for all 675 clinical courses to qualify to take this course. Traditional Practicum/Internship (3 hours)

DENT 697-13. Regional Licensing Exam Prep Course. 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 regional licensing exam. Traditional Laboratory (2 hours)

DENT 697-5. Miss State Dental Board Observership. D4 students are invited to attend Mississippi State Dental Board meetings with a faculty member. By attending, the students see first hand, how the board functions and they observe both formal and informal hearings. Traditional Lecture (1-2 hours)

DENT 697-9. Continuing Education for Dent Stu. Encourages dental student participation in the professional activity of continuing health education, and emphasizes the importance of life-long learning Traditional Lecture (1-3 hours)

DENT 698. Advanced Clinical Orthodontics. This elective course is designed to introduce the dental student to orthodontic practice. The student will understand office staffing, scheduling, inventory and sophisticated orthodontic armamentarium. Traditional Clinical Rotation (3 hours)

DENT 698-13. AGD-Residency Internship. This internship will be offered to the dental students in good academic standing in the spring of their rising D4 year. Students will shadow residents, and limited procedures can be performed at the discretion of the covering attending. Exposure to different population groups like special needs, HIV, cardiac, liver, kidney disease or transplant patients will be provided in addition to healthy community patients. Traditional Lecture (3 hours)

DENT 698-17. Intro to Scanning Electron Microscopy. 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. Traditional Lecture (3 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 requiring submission of a request for the program at least three months in advance. Traditional Lecture (3 hours)

DENT 698-34. Oral-Maxillofacial Surgery Externship. On-Site, UMMC. Students should expect to be involved in didactic and clinical instruction in oral and maxillofacial surgery. Experience with advanced oral and maxillofacial surgeries, management of medically compromised patients in the clinical and hospital setting should be expected. The externship involves call responsibilities, patient rounds, ER / hospital consults and OR exposure in Oral and Maxillofacial Surgery. Summer, Fall or Spring semesters. Traditional Clinical Rotation (1-3 hours)

DENT 698-41. Periodontics Externship. Gives rising D4 students interested in pursuing specialty training in Periodontics the opportunity to visit a graduate program in the specialty. Externships are arranged by the student in consultation with the externship coordinator. Externships are generally one week in duration and may be completed at any accredited Periodontics specialty program in the United States. Traditional Lecture (1-3 hours)

DENT 698-48. Dental Mission Externship. Externships 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. Participation usually occurs in the Summer and Fall semesters. In order to receive credit, THE SUPERVISING DENTISTS ON THE PROJECT MUST BE A MEMBER OF THE FACULTY OF THE SCHOOL OF DENTISTRY, EITHER FULL-TIME, OR PART-TIME, OR AS A PRECEPTOR. The student must give an oral presentation to the course coordinator detailing the operation of that clinic when the student returns to the School of Dentistry. Traditional Lecture (1-3 hours)

DENT 698-8. Elect Preceptorship Mil or Pub Hlth Den. 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 they are 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. Traditional Lecture (1-3 hours)

DENT 698-9. Conduct of Research. Permits exposure of dental students to research. This exposure may be a first time event or may be a continuation of previous research experiences. Traditional Lecture (3 hours)

DH 302. Principles and Practice I. This introductory didactic and laboratory course begins preparing students for the “Dental Hygiene Process of Care.” Emphasis is placed on infection control protocol, data collection, patient assessment, treatment modalities, and professionalism. Traditional Lecture/Lab (3 hours)
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 hours)

DH 305. Dental Hygiene Instrumentation. Development and application of the fundamentals of instrumentation. Traditional Lecture/Lab (3 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 hours)

DH 311. Current Trends in Preventive Care. This didactic course focuses on the science and practice of preventive dental care. The etiology and associated risk factors of common oral diseases are presented so that students understand the diseases before prevention is discussed. Some of these include basic knowledge of biofilm, gingival diseases and dental caries. The following measures that promote oral health and prevent disease are comprehensively presented: mechanical plaque control, toothpastes and mouth rinses, interproximal cleaning, xylitol, fluorides, sealants, and oral malodor control. Also included are motivational interviewing and the Oral Health/Systemic Health Link. Online, Internet, or Web-based Lecture (3 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 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 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 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. Online, Internet, or Web-based Lecture (3 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 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 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 hours)

DH 326. 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 hours)

DH 327. Patient Care I. The development and application of clinical skills in assessment, care plans, implementation, and evaluation of care. Prerequisite: DH 326 Traditional Clinical Rotation (2 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 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 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 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 (3 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 Traditional Clinical Rotation (3 hours)

DH 406. Dental Public Health I. An introduction to the history, principles, and ethics of dental public health in the US and worldwide. Included in this course are concepts of dental health preventive modalities and cultural competency. Traditional Lecture (1 hour)

DH 407. Pharmacology I. This course presents introductory principles of pharmacology and pharmacotherapeutics. Characteristics and uses of major drug groups in relation to patient care are discussed. Traditional Lecture (1 hour)

DH 408. Pharmacology II. 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 (2 hours)
DH 409. Dental Public Health II. This course will provide readings, discussion, and practical experiences related to planning, implementation, and evaluation of the teaching/learning process in community settings. An emphasis on field work experiences across various populations will occur. Traditional Lecture/Lab (2 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. Online, Internet, or Web-based Lecture (3 hours)

DH 413. Dental Public Health III. This course will provide a continuation of the didactic knowledge and skills obtained in DH 406 and DH 409 with a continued focus on practical experiences in community settings. Epidemiology and dental public health theory is also a focus of this course. Traditional Lecture (1 hour)

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 hours)

DH 417. 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 hour)

DH 418. 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. Prerequisites: All courses in the senior fall semester. Traditional Lecture (2 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/Lab (2 hours)

DH 423. Biomaterials in 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 semesters. Traditional Lecture (2 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 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 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 (1 hour)

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 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 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 hours)

DH 444. Practice Mgmt and Dental Specialties. This course provides students with the legal, practical and ethical concepts in the provision of oral health care and the foundational concepts for the business aspects of the profession. Content on dental and dental hygiene specialties and sub-specialties are discussed. Traditional Lecture (4 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 (1 hour)

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 hour)

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 hours)
### 2020-2021 Academic Calendar

<table>
<thead>
<tr>
<th>Month</th>
<th>Date</th>
<th>Day</th>
<th>Event</th>
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<tbody>
<tr>
<td>April</td>
<td>13</td>
<td>Monday</td>
<td>Registration begins for 2020-2021 Summer Semester</td>
</tr>
<tr>
<td>April</td>
<td>15</td>
<td>Wednesday</td>
<td>Deadline for submission of application to the John D. Bower School of Population Health</td>
</tr>
<tr>
<td>April</td>
<td>17</td>
<td>Friday</td>
<td><em><strong>Last day to submit an application for August 2020 degree</strong></em></td>
</tr>
<tr>
<td>May</td>
<td>12</td>
<td>Tuesday</td>
<td>$50 Late Registration Fee For 2020-2021 Summer Semester Effective Today</td>
</tr>
<tr>
<td>May</td>
<td>228</td>
<td>Friday</td>
<td>2020 Commencement</td>
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#### SUMMER SEMESTER

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<tbody>
<tr>
<td>May</td>
<td>26</td>
<td>Tuesday</td>
<td>Classes begin</td>
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<td>May</td>
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<td>$100 Late Registration Fee For 2020-2021 Summer Semester Effective Today</td>
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<tr>
<td>June</td>
<td>5</td>
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<td>Last day to register for 2020-2021 Summer Semester</td>
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<tr>
<td>June</td>
<td>8</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>
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<tr>
<td>June</td>
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<td>Friday</td>
<td>Deadline for completion of all requirements for August 2020 degree</td>
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<tr>
<td>July</td>
<td>3</td>
<td>Wednesday</td>
<td>Independence Day Holiday observed</td>
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<tr>
<td>July</td>
<td>6</td>
<td>Monday</td>
<td>Classes resume</td>
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<tr>
<td>July</td>
<td>27</td>
<td>Monday</td>
<td>$50 Late Registration Fee For 2020-2021 Fall Semester Effective Today</td>
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<tr>
<td>July</td>
<td>31</td>
<td>Friday</td>
<td>Last day of Summer Semester</td>
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<tr>
<td>August</td>
<td>4</td>
<td>Tuesday</td>
<td>Last day to submit grades</td>
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#### FALL SEMESTER

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<tr>
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<td>10</td>
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<td>Classes begin</td>
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<td>Last day to add a course</td>
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<tr>
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<td><em><strong>Last day to submit an application for December 2020 degree</strong></em></td>
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<tr>
<td>August</td>
<td>27</td>
<td>Thursday</td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
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<tr>
<td>September</td>
<td>7</td>
<td>Monday</td>
<td>Labor Day Holiday observed</td>
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<td>September</td>
<td>8</td>
<td>Tuesday</td>
<td>Classes resume</td>
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<tr>
<td>October</td>
<td>16</td>
<td>Friday</td>
<td>Deadline for completion of all requirements for December 2020 degree</td>
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<tr>
<td>November</td>
<td>2</td>
<td>Monday</td>
<td>Registration begins for 2020-2021 Spring Semester</td>
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<tr>
<td>November</td>
<td>25</td>
<td>Wednesday</td>
<td>Thanksgiving Holiday begins at 5:00pm</td>
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<td>30</td>
<td>Monday</td>
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<td>Friday</td>
<td>Last day of Fall Semester</td>
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<td>December</td>
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<td>Tuesday</td>
<td>Last day to submit grades</td>
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<tr>
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<td>28</td>
<td>Monday</td>
<td>$50 Late Registration Fee For 2020-2021 Spring Semester Effective Today</td>
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#### SPRING SEMESTER

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<tbody>
<tr>
<td>January</td>
<td>11</td>
<td>Monday</td>
<td>Classes Begin</td>
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<tr>
<td>January</td>
<td>11</td>
<td>Monday</td>
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<td>Friday</td>
<td>Last day to register for 2020-2021 Spring Semester</td>
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<tr>
<td>January</td>
<td>18</td>
<td>Monday</td>
<td>Martin Luther King's Birthday Holiday observed</td>
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<td>Tuesday</td>
<td>Classes resume</td>
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<td>Friday</td>
<td>Last day to add a course</td>
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<tr>
<td>January</td>
<td>22</td>
<td>Friday</td>
<td><em><strong>Last day to submit an application for May 2021 degree</strong></em></td>
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<tr>
<td>January</td>
<td>28</td>
<td>Thursday</td>
<td>Last day to withdraw from a course or from school without receiving a withdrawal grade and to receive a tuition refund</td>
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<tr>
<td>March</td>
<td>15-19</td>
<td>Monday-Friday</td>
<td>Spring Break</td>
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<tr>
<td>March</td>
<td>22</td>
<td>Monday</td>
<td>Classes resume</td>
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<td>26</td>
<td>Friday</td>
<td>Deadline for completion of all requirements for May 2022 degree</td>
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<tr>
<td>April</td>
<td>12</td>
<td>Monday</td>
<td>Registration begins for 2021-2022 Summer Semester</td>
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<tr>
<td>April</td>
<td>16</td>
<td>Friday</td>
<td><em><strong>Last day to submit an application for August 2021 degree</strong></em></td>
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<tr>
<td>April</td>
<td>30</td>
<td>Friday</td>
<td>Last day of Spring Semester</td>
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<tr>
<td>May</td>
<td>4</td>
<td>Tuesday</td>
<td>Last day to submit grades</td>
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<td>Tuesday</td>
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JOHN D. BOWER SCHOOL OF POPULATION HEALTH

Natalie W. Gaughf, PhD, Interim Dean and Associate Dean of Student Affairs
Sydney Murphy, PhD, Associate Dean of Academic and Faculty Affairs

HISTORY
The John D. Bower School of Population Health (SOPH) at the University of Mississippi Medical Center (UMMC) in Jackson was established in 2016 by the Board of Trustees of the Mississippi State Institutions of Higher Learning. The John D. Bower School of Population Health was designed to complement, strengthen, and extend the capacity for scholarship across UMMC and to assist in achieving the institutional missions by supporting rigorous approaches to investigation and transformational education in the science of population health, data science, health care economics, and preventive medicine.

The John D. Bower School of Population Health will serve an important role in accomplishing the mission of UMMC by:

- Educating future researchers and clinicians in the science of population health. Graduates of the John D. Bower School of Population Health will be expected to assume academic, administrative, and clinical roles in health care, population health, academia, and private industry. They will help shape the provision of health care, population health, and public health services in the state in the coming decades and thereby improve the health of Mississippians.
- Contributing to the UMMC clinical enterprise through the development and implementation of healthcare quality improvement interventions, developing creative approaches for identifying and intervening with high-risk patient populations, and developing programs to reduce health disparities.

MISSION
The mission of the John D. Bower School of Population Health is to provide world-class graduate training to prepare the next generation of scientists and health care professionals to improve the health of individuals, populations, and communities through enhancing health care systems and health policies.

VISION
The John D. Bower School of Population Health is protecting populations by addressing the multiple determinants of health.

ACADEMIC PROGRAMS
Executive Master of Science Degree Program
Executive Master of Science in Population Health Management - fully online

Master of Science Degree Programs
Master of Science in Biostatistics and Data Science
Master of Science in Population Health Science - fully online

Doctor of Philosophy degree programs
Doctor of Philosophy in Biostatistics and Data Science
Doctor of Philosophy in Population Health Science

ADMISSION 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’s status. A student with a baccalaureate degree from an 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 Enrollment Management. This application will include an official transcript of all undergraduate and graduate (if applicable) institutions attended, letters of recommendation from faculty members at accredited institutions or employment supervisors, and a personal statement. All non-United States transcripts must be evaluated on a course-by-course report from World Education Services (WES) or Educational Credential Evaluators (ECE).

Testing Service (ETS). Information regarding the GRE may be obtained from the Educational Testing Service, Princeton, NJ 08540. The application may include an official statement of scores (verbal, quantitative, and analytical) received on the Graduate Record Examination (GRE). The GRE examinations must be taken within five years of application and must be sent directly by Educational Testing Service (ETS). Information regarding the GRE may be obtained from the Educational Testing Service, Princeton, NJ 08540. Certain programs require prerequisites, and these may be determined by contacting the specific program to which the applicant desires admission or reviewing the criteria outlined in the program-specific section of the Bulletin. Initial evaluation of applicants for admission to graduate programs is based on undergraduate and graduate (if applicable) scholastic performance, letters of recommendation, personal statements, and examination scores. 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.

Conditional Acceptance: Acceptance to the SOPH is conditional; the school 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.

Students who meet or exceed the minimum scores may be granted full admission to the SOPH. Students whose scores are below the minimum requirements may 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, meet or exceed the requirements on which the conditional admission is based. 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 SOPH.
English Language Proficiency. 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 SOPH. No individual may enroll in graduate level courses without proper approval and notification from the Bower School of Population Health.

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. All accepted applicants must schedule an appointment with UMMC Human Resources prior to enrollment so that a set of digital fingerprints and photograph can be obtained.

**DEADLINES FOR APPLICATIONS** - The SOPH accepts applications throughout the calendar year. However, applications for specific academic semesters must be received by the Office of Student Records and Registrar by the deadlines below.

- **MS in Biostatistics and Data Science**
  - Fall admission: April 15
- **PhD in Biostatistics and Data Science**
  - Fall admission: April 15
- **Executive MS in Population Health Management**
  - Summer admission: April 15
- **MS in Population Health Science**
  - Fall admission: April 15
- **PhD in Population Health Science**
  - Fall admission: April 15

PhD students wishing to be considered for a stipend for the upcoming Fall semester should apply for admission as early as possible, but no later than December 31. Stipends for PhD students are evaluated 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 is desired.

**APPLICATION FEE** - A nonrefundable fee of $25 must accompany the initial application.

**NON-DEGREE SEEKING STUDENTS** - Individuals who wish to take graduate courses but are not members of a UMMC degree program may apply as non-degree seeking students. Applicants must first complete a Non-Degree Seeking Enrollment Request Form. The form is located on the SOPH website. A maximum of nine (9) credit hours may be taken as a non-degree student. Furthermore, successful completion of courses taken does not in itself qualify the individual for subsequent admission to a graduate program.

**TECHNICAL STANDARDS FOR ADMISSION**

Technical Standards are non-academic requirements essential for meeting the academic requirements of the programs in the SOPH. 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.

Degree programs may require a dissertation, thesis, projects, or a practice transformation practicum, based on independent research. Granting of these 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 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 student in the SOPH:

**Observation Skills.** The candidate must be able to acquire knowledge by direct observation of demonstrations, experiments, and experiences within the research and instructional setting.

**Intellectual/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 the experimentation and experiences within the chosen discipline.

**Communication Skills.** 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.

TUITION AND REQUIRED FEES
Tuition and fees for the academic year can be found on the institutional website. Students in PhD programs who maintain a minimum GPA of 3.0 may receive a waiver of non-resident fees. Tuition is subject to change pending information from the Mississippi State Institutions of Higher Learning.

STUDENT COMPLAINTS
Students have the right to complain without fear of retribution or retaliation. More information on how students may file an official complaint can be found in the SOPH Student Complaints policy.

TECHNOLOGY REQUIREMENTS
Required Technology and Software. Every student is required to have a laptop computer that meets the minimum requirements for both PC and Mac computers. Students should purchase a laptop meeting or exceeding these requirements from regular retail channels. Students are personally responsible for maintenance/repair of their laptop. All students are required to maintain up-to-date virus and spyware detection software on their laptops. Students should acquire their laptops prior to orientation. Specific departments or academic degree programs may have additional requirements for computers and/or software.

At a minimum, a student’s computer configuration should include:
- Speakers and a microphone/headphones with built-in microphone
- Webcam
- Wi-Fi and/or Ethernet connection (Broadband connection to the internet and related equipment)
- Windows 10 operating system
- Microsoft Office Suite installed
- Antivirus and spyware software
- Updated Adobe Flash Player and Oracle Java
- Firefox, Google Chrome, and/or Internet Explorer browser

A student may also need access to:
- USB ports
- Printer

Visit the UMMC Software Portal (The Hub) to see a complete list of available software. Students have the option to download the Microsoft Office suite for free while enrolled. Visit https://portal.office.com/account for more information.

COURSE LOAD – A full-time course load in the SOPH is nine (9) credit hours per semester except for the summer semester when 1 credit hour minimum is sufficient. A student who is admitted to candidacy and is working on a thesis or dissertation may be classified as full-time while registering for one (1) credit hour, following request by the student’s advisor and program director. The student and his/her advisor must complete the required registration approval form which may be found on the SOPH website under Forms. See the SOPH Course Load Policy for more information. See the SOPH Course Load policy for more information.

ENROLLMENT POLICY – Once students are accepted into the SOPH, they must remain continuously enrolled in courses until the degree is complete unless they are approved for a leave of absence. Failure to adhere to this requirement will result in administrative withdrawal from the SOPH. See SOPH Enrollment policy for more information.

TRANSFER OF GRADUATE CREDIT - A limited amount of graduate credits earned at another recognized institution may be accepted toward degree requirements at UMMC. All transfer course work is evaluated and accepted work is recorded, without changes in grades, as part of the student’s permanent academic record. See the SOPH Transfer of Credit Policy for more information. See the SOPH Transfer of Credit policy for more information.

GRADUATE PROGRAMS
MASTER OF SCIENCE (MS) IN BIOSTATISTICS AND DATA SCIENCE
INTERIM PROGRAM DIRECTOR: Robert Hester, PhD

PROGRAM DESCRIPTION: The Master of Science (MS) program in Biostatistics and Data Science will train students to extract, analyze, and translate vast amounts of data into actionable evidence and communicate results to individuals from other disciplines. This program synergizes competencies in statistics, computer science, and epidemiology, an important combination of skills for analyzing increasingly complex health-related data. Through supervised consulting sessions and an internship, students will develop the technical and collaborative skills necessary to excel in clinical, academic, government, industrial, and population health work organizations. Students must install the following statistical programs onto their personal laptops prior to orientation: Stata, R, and SAS University Edition.

PROGRAM OBJECTIVES: The primary objective of the program is to educate students on statistical theory, practical data analysis, big data management and manipulation, and communication to the scientific and general community. Graduates of the program will be able to:
- Efficiently collect, clean, organize, and appropriately analyze biomedical, clinical, and population health data
- Use standard statistical (R, SAS, and Stata) and computer (Python) programming languages to reproducibly explore and visualize data, fit models, conduct inference, and translate analysis results
• Conduct all facets of big data analysis, including the extraction, storage, manipulation, and analysis of publicly available data, using data science techniques and machine learning
• Adhere to rigorous ethical and methodological standards when analyzing real-world data
• Collaborate with non-statisticians and communicate findings to the scientific and general community to improve health care and prevent disease

ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by April 15.

MS in Biostatistics and Data Science applicants will be evaluated on the following:
• Baccalaureate degree in a relevant discipline
• Grade Point Average (GPA) of 3.0 or better (preferred)
• Three letters of recommendation from faculty members at accredited institutions or employment supervisors
• A personal statement
• A GRE score ≥295 on the combined verbal and quantitative scores is preferred

In addition, students must have documented training in calculus (including multiple variable integration and differentiation) and linear algebra. Additional training in statistical or computer programming languages is preferred.

PROGRAM COMPLETION REQUIREMENTS: Students must successfully complete the prescribed plan of study, meeting a minimum of 30 credit hours beyond a baccalaureate degree, to be eligible for the awarding of degree.

YEAR 1 – FALL
BDS 721 Analytics 3
BDS 741 Statistical Inference I 3
BDS 754 Principles of Programming with Python 3

YEAR 1 – SPRING
BDS 722 Advanced Analytics 3
BDS 723 Statistical Programming with R 3
BDS 763 Database Systems * 3

YEAR 2 – SUMMER
BDS 797 Biostatistics & Data Science Internship 1

YEAR 2 – FALL
MSCI 710 Epidemiology I ** 3
BDS 725 Survival Analysis 3
BDS 765 Advanced Machine Learning 3
BDS 792 Statistical Consulting 1

YEAR 2 – SPRING
BDS 724 Longitudinal and Multilevel Models 3
BDS 761 Data Science 3
BDS 796 Directed Research* 3
ID 709 Responsible Conduct of Research 1

*Students may substitute the course for elective courses within the Department of Data Science or other graduate degree departments upon approval of the program director.

**Students may substitute PHS 703. Epidemiology I for MSCI 710. Epidemiology I in the fall of their second year.

DOCTOR OF PHILOSOPHY (PhD) IN BIOSTATISTICS AND DATA SCIENCE
INTERIM PROGRAM DIRECTOR: Robert Hester, PhD

PROGRAM DESCRIPTION: The Doctor of Philosophy (PhD) program in Biostatistics and Data Science will produce graduates equipped to conduct cutting-edge research, teach the next generation of biostatisticians and data scientists, and collaborate with basic research scientists, clinicians, epidemiologists, and population health organizations. The doctoral course of study includes supervised consulting, internships, and a dissertation expanding knowledge in one or more emphasis areas, namely biostatistics, data science, or bioinformatics & genomics. Students must install the following statistical programs onto their personal laptops prior to orientation: Stata, R, and SAS University Edition.

PROGRAM OBJECTIVES: The primary objective of the program is to prepare graduates to lead cutting-edge biostatistics, genetic epidemiology, or data science research. Students receive didactic training in statistical theory, practical data analysis, big data management and manipulation, and communication to the scientific and general community. Graduates of the program will:
• Lead cutting-edge research in statistical methodology, genetic epidemiology, or data science
• Act as a consummate resource in the design, analysis, and interpretation of a wide array of studies

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
• Use standard statistical (R, SAS, and Stata) and computer (Python) programming languages to reproducibly explore and visualize data, fit models, conduct inference, and translate analysis results
• Conduct all facets of big data analysis, including the extraction, storage, manipulation, and analysis of massive datasets, using data science techniques and machine learning
• Collaborate with non-statisticians with authority, communicating complex findings to the scientific and general community to improve health care and prevent disease

ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by April 15.
PhD in Biostatistics and Data Sciences applicants will be evaluated based on the following:
• Baccalaureate degree in a relevant scientific discipline
• Grade Point Average (GPA) of 3.0 or better (preferred)
• Three letters of recommendation
• A personal statement
• GRE score ≥300 on the combined verbal and quantitative scores is preferred.
In addition, applicants must have documented training in calculus (including multiple variable integration and differentiation) and linear algebra. Additional training in statistical or computer programming languages is preferred. Applicants may submit code exhibiting their knowledge in a statistical or computer programming language and/or slides presenting a completed data analysis project. These materials are optional but may strengthen the overall application.

PROGRAM COMPLETION REQUIREMENTS: The PhD 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.
• QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY – The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.
• 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 SOPH. 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 thesis can be found on the SOPH Dissertation and Thesis 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.
• REQUIRED COURSEWORK - Students must either successfully complete ID709 (Responsible Conduct in Research) or PHS 744 (Bioethics and Society).

YEAR 1 – FALL
BDS 721 Analytics 3
BDS 741 Statistical Inference I 3
BDS 754 Principles of Programming with Python 2

YEAR 1 – SPRING
BDS 722 Advanced Analytics 3
BDS 723 Statistical Programming with R 3
BDS 751 Statistical Inference in Genetics 3

YEAR 2 – SUMMER
BDS 797 Biostatistics & Data Science Internship 1

YEAR 2 – FALL
BDS 725 Survival Analysis 3
BDS 765 Advanced Machine Learning 3
BDS 792 Statistical Consulting 1
MSCI 710 Epidemiology I** 3

YEAR 2 – SPRING
BDS 724 Longitudinal and Multilevel Models 3
BDS 750 Study Design 3
BDS 761 Data Science 3
ID 709 Responsible Conduct of Research 1

YEAR 3 – SUMMER
BDS 797 Biostatistics & Data Science Internship 1

YEAR 3 – FALL
PHS 700 Essentials of Population Health 3
BDS 798 Dissertation Research 1
XXX ### Elective* 3

YEAR 3 - SPRING
BDS 798 Dissertation Research 1
BDS 739 Computational Statistics 3
XXX ### Elective* 3

YEAR 4 – SUMMER
BDS 797 or BDS 798 Biostatistics & Data Science Internship or Dissertation Research 1

YEAR 4 – FALL
BDS 798 Dissertation Research 1

YEAR 4 – SPRING
BDS 798 Dissertation Research 1

YEAR 5 – SUMMER
BDS 797 or BDS 798 Biostatistics & Data Science Internship or Dissertation Research 1

YEAR 5 – FALL
BDS 798 Dissertation Research 1

YEAR 5 – SPRING
BDS 798 Dissertation Research 1

*Electives will be chosen from the courses offered by the Department of Data Science or other graduate degree departments upon approval of the program director.

**Students may substitute PHS 703. Epidemiology I for MSCI 710. Epidemiology I in the fall of their second year.

EXECUTIVE MASTER OF SCIENCE (MS) IN POPULATION HEALTH MANAGEMENT – fully online

PROGRAM DIRECTOR: Charles Chima, MBBS, DrPH, MSc

PROGRAM DESCRIPTION: The 12-month, three-semester program is designed for experienced health care professionals, particularly providers (e.g. physicians, nurses, pharmacists, dentists, clinical social workers, physical therapists, etc.) with at least 5 years’ practice experience, who are interested in enhancing their knowledge and skills to create sustainable models for value-based and accountable care. The program uses a cohort-based structure that fosters collaboration between clinicians and administrators with different backgrounds. In addition to asynchronous online classes, students participate in intensive two-day weekend seminars each semester at the UMMC campus in Jackson, plus an annual population health management conference. The program will culminate in a practice transformation practicum, during which students will develop and implement projects aligned with the triple aim within their practice settings.

PROGRAM OBJECTIVES: The program has a strong focus on applied learning. Students will gain knowledge and skills in value-based health care delivery, including practice redesign, team-based models of care, incentive payment models, improving health care quality and safety, working with accountable care organizations, implementing population health management approaches, adopting appropriate health information technology, effectively leveraging data to drive health care improvement, maximizing community assets to address social determinants, and much more.

ADMISSION REQUIREMENTS: The program accepts students for summer enrollment. To be considered for summer admission, all applications must be submitted and complete by April 15.

Executive MS applicants will be evaluated on the following:
- Baccalaureate or professional degree
- Grade Point Average (GPA) of 3.0 or better (preferred)
Three letters of recommendation

A personal statement which includes information regarding relevant experiences or work history pertinent to the degree program

Curriculum Vitae (Applicants must have >5 years work experience)

PROGRAM COMPLETION REQUIREMENTS: Students must complete a practice transformation practicum based on independent research. Students will develop and implement comprehensive quality improvement projects intended to strengthen the quality of patient care and reduce health care costs. The project will be implemented in the setting in which the health care provider-student is practicing.

YEAR 1 – SUMMER

PHS 705 Value-based Health Care Delivery and Payment Models 3
PHS 715 Health Disparities Seminar 3

YEAR 1 – FALL

PHS 700 Essentials of Population Health Science 3
PHS 706 Population Health and Consumerism 3
PHS 710 Clinical Coaching 3
PHS 703 Epidemiology I 3

YEAR 1 – SPRING

PHS 709 Population Health Management 3
PHS 720 Population Health Informatics 3
PHS 711 Healthcare Quality and Safety 3
PHS 797 Practice Transformation Practicum 3

MASTER OF SCIENCE (MS) IN POPULATION HEALTH SCIENCE – fully online

PROGRAM DIRECTOR: Charles Chima, MBBS, DrPH, MSc

PROGRAM DESCRIPTION: The MS in Population Health Science is a distance education program offered by the John D. Bower School of Population Health, University of Mississippi Medical Center. The program will be completed entirely online using UMMC’s electronic student learning platform. The program is designed to educate students to examine health determinants and outcomes using a population health framework and to develop policies and interventions to improve health outcomes, reduce disparities, and improve the health care system. The program will culminate in an original thesis demonstrating mastery of competencies for the program.

PROGRAM OBJECTIVES: The objectives of the program are reflected in the competencies below:

- Understand fundamentals of population health science and the contribution to improving health and health care
- Apply evidence-based approaches for knowledge acquisition in population health science, including the ability to:
  - Critique the literature, summarize evidence, and synthesize knowledge
  - Analyze and interpret primary and secondary population-level data to reach valid conclusions about the health of populations
  - Design and execute appropriate research studies to identify clinical and non-clinical determinants of health, distribution of health outcomes, and health disparities
  - Conduct community health needs assessment, including information about health status, multiple determinants of health, and community assets and resources
- Practice mechanisms for knowledge translation and exchange
- Apply knowledge of the organization, financing, delivery, and value of health care to the design of interventions to improve health outcomes for clinical, organizational, and geographical populations
- Conduct thesis research with real world application to improving health or healthcare for a defined population

ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by April 15.

MS in Population Health Science applicants will be evaluated on the following:

- Baccalaureate or professional degree in a relevant discipline
- Grade Point Average (GPA) of 3.0 or better (preferred)
- Three letters of recommendation
- A personal statement describing professional background and aspirations pertinent to the degree program

All applicants to the general track must meet the minimum admission requirements set forth by the SOPH. In addition to the general requirements, applicants to the Preventive Medicine track must be physicians undergoing preventive medicine residency training at the University of Mississippi Medical Center.
PROGRAM COMPLETION REQUIREMENTS: Students must complete a minimum of 43 credit hours to graduate from the program. The MS degree is a research degree and is not conferred solely as a result of formal course work, no matter how superior and extensive. To receive the MS 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 thesis based upon original research.

- **THESIS** – Students are required to complete a thesis, which shows evidence of original investigation. The thesis must be approved by the advisory committee and the SOPH dean. Guidelines outlining the prescribed form for a student’s written thesis can be found on the SOPH Dissertation and Thesis website.
- **THESIS DEFENSE** – An oral examination and public thesis defense are mandatory for successful completion of the thesis. The candidate’s advisory committee will conduct the examination.
- **REQUIRED COURSEWORK** - Students must successfully complete PHS 744 (Bioethics and Society).

**General Track**

**YEAR 1 – FALL**
PHS 700  Essentials of Population Health Science  3
PHS 702  Statistical Methods in Research  3
PHS 703  Epidemiology I  3
PHS 750  Population Health Research Methods I  3

**YEAR 1 – SPRING**
PHS 704  Epidemiology II  3
PHS 742  Multivariate Regression  3
PHS 717  Principles of Classic, Modern, and Emerging Health Behavior Theory  3

**YEAR 2 – SUMMER**
PHS 715  Health Disparities Seminar  3
PHS 744  Bioethics and Society  1

**YEAR 2 – FALL**
PHS 714  US Healthcare Organizations and Delivery  3
PHS 796*  Thesis and Thesis Research  6+

**YEAR 2 – SPRING**
PHS 712  Science Communication and Dissemination I  3
PHS 731  Social Determinants of Health  3
Elective**  Elective  3+

*Thesis and Thesis Research can be taken in year 2 fall or year 2 spring
**Electives can be taken at any time in the second year. Students are required to take a minimum of 3 elective hours from the following courses:

**Electives**
- PHS 713 - Implementation Science (3 credit hours)
- PHS 743 - Program Evaluation for Population-Level Interventions (3 credit hours)
- PHS 716 - Designing Interventions to Change Organizational Behavior (3 credit hours)
- PHS 732 - Global Health: Disparities, Determinants, Policies, and Outcomes (3 credit hours)
- PHS 711 - Healthcare Quality and Safety (3 credit hours)
- PHS 746 - Systematic Review, Meta-analysis, and Evidence Synthesis (3 credit hours)
- PHS 730 - Health Promotion, Disease Prevention, and Care Management (3 credit hours)
- PHS 752 - Designing and Conducting Health Surveys (3 credit hours)
- PHS 747 - Qualitative Methods and Analysis (3 credit hours)
- Any other elective course as may be approved by the Department of Population Health Science.

**PREVENTIVE MEDICINE TRACK**

**YEAR 1 – FALL**
PHS 703  Epidemiology I  3
PHS 702  Statistical Methods in Research  3
PHS 700  Essentials of Population Health Science  3

**YEAR 1 – SPRING**
PHS 742  Multivariate Regression  3
Elective*  Elective  3
PHS 717  Principles of Classic, Modern, and Emerging Health Behavior Theory  3
**DOCTOR OF PHILOSOPHY (PHD) IN POPULATION HEALTH SCIENCE**

**PROGRAM DIRECTOR:** Charles Chima, MBBS, DrPH, MSc

**PROGRAM DESCRIPTION:** The Doctor of Philosophy (PhD) in Population Health Science program will educate students to examine health outcomes and patterns of health determinants, to develop policies and interventions to reduce health disparities and improve population health outcomes, and to effectively communicate scientific studies to a range of stakeholders. Graduates will develop advanced research, analytic, and communication skills necessary for generating and disseminating new knowledge in the science of population health improvement.

Enrolled students will be able to complete the program in approximately 5 years, completing a minimum of 73 credit hours. The program will culminate in an original dissertation designed to have real-world application. In addition, students choose to specialize in one of three tracks: Population Health Economics, Science Communication and Dissemination, or Vulnerable Populations. All students complete similar coursework to acquire core competencies in Population Health Science. Additional courses in Population Health Science and track-specific courses are taken after successful completion of the qualifying examination. Students who pass their qualifying examination will identify faculty to serve on their doctoral dissertation committee. Each student prepares a proposal for an original dissertation research project under the supervision of their committee. Students who pass their proposal defense are admitted to candidacy. At the completion of their dissertation, in addition to the formal written work, all students must defend their project in an oral presentation to the wider university community.

**PROGRAM OBJECTIVES:** The objectives of the program reflected in the competencies below:

- Understand fundamentals of the field population health science and the contribution to improving health and health care
- Apply evidence-based approaches for knowledge acquisition in population health science, including the ability to:
  - Critique the literature, summarize evidence, and synthesize knowledge
  - Collect, manage, analyze, and interpret primary and secondary population-level data to reach valid conclusions about the health of populations, including quantitative and qualitative data, and data clustered in space and time
  - Design and execute appropriate research studies to identify clinical and non-clinical determinants of health, distribution of health outcomes, and health disparities
  - Conduct community health needs assessment, including information about health status, multiple determinants of health, and community assets and resources
  - Conduct health impact assessment for a public policy or program outside of the health sector
  - Develop a program evaluation proposal for a population health intervention

**YEAR 2 – SUMMER**

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<th>Course Title</th>
<th>Credit Hours</th>
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<td>PHS 744</td>
<td>Bioethics and Society</td>
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**YEAR 2 – FALL**

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<td>PHS 714</td>
<td>US Healthcare Organizations and Delivery</td>
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<td>Elective*</td>
<td>Elective</td>
<td>3</td>
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<tr>
<td>PHS 796*</td>
<td>Thesis and Thesis Research</td>
<td>6+</td>
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**YEAR 1 – SPRING**

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<th>Course Code</th>
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<tr>
<td>Electives*</td>
<td>Electives</td>
<td>6</td>
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<tr>
<td>PM 797*</td>
<td>Preventive Medicine Practicum</td>
<td>6+</td>
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Electives

*The following elective courses can be taken in any sequence:

- PHS 704 - Epidemiology II (3 credit hours),
- PM 725 - Environmental Health (3 credit hours),
- PHS 731 - Social Determinants of Health (3 credit hours), and
- One of the following courses:
  - PHS 713 - Implementation Science (3 credit hours)
  - PHS 743 - Program Evaluation for Population-Level Interventions (3 credit hours)
  - PHS 716 - Designing Interventions to Change Organizational Behavior (3 credit hours)
  - PHS 732 - Global Health: Disparities, Determinants, Policies, and Outcomes (3 credit hours)
  - PHS 711 - Healthcare Quality and Safety (3 credit hours)
  - PHS 746 - Systematic Review, Meta-analysis, and Evidence Synthesis (3 credit hours)
  - PHS 730 - Health Promotion, Disease Prevention and Care Management (3 credit hours)
  - PHS 752 - Designing and Conducting Health Surveys (3 credit hours)
  - PHS 709 - Population Health Management (3 credit hours)
  - PHS 740 - Writing and Reviewing Scientific Papers (2 credit hours)
  - Any other elective course as may be approved by the Department of Population Health Science.

*Thesis hours and Preventive Medicine Practicum can be registered at any time during the second year of the program.
• Practice applied skills in science communication, knowledge translation and exchange
• Practice effective collaboration skills while working in interdisciplinary teams
• Apply knowledge of the organization, financing, delivery, and value of health care to the design of interventions to improve health outcomes for clinical, organizational, and geographical populations
• Apply systems thinking to addressing complex health challenges.

ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by April 15.

PhD in Population Health Science applicants will be evaluated based on the following:
• Master’s degree in a relevant scientific discipline (e.g. health sciences, social sciences, etc.) or a professional degree in a health-related field
• Grade Point Average (GPA) of 3.0 or better (preferred)
• Three letters of recommendation
  o One letter from an academic referee
• A personal statement describing the applicant’s professional background and aspirations pertinent to the degree program.
• GRE score >300 on the combined verbal and quantitative scores is preferred.

In addition, applicants show previous coursework at the undergraduate or graduate level showing at least one course in statistics, research methods, and biology respectively, with a grade of B or better in each course.

PROGRAM COMPLETION REQUIREMENTS: The PhD 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.

• QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY – The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.

• 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 SOPH. 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 thesis can be found on the SOPH Dissertation and Thesis 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.

• REQUIRED COURSEWORK - Students must pass ethics in research training. Students must either successfully complete ID709 (Responsible Conduct in Research) or PHS 744 (Bioethics and Society) depending on specific program requirements.

POPULATION HEALTH ECONOMICS TRACK
The Population Health Economics track prepares doctoral students for conducting independent research on the economics of health and healthcare. The curriculum provides a firm grounding and applied skills in economic evaluation, modern microeconomic theory, and microeconometrics. A typical dissertation research will focus on the economic evaluation of health interventions or technologies, behavioral economics, or an applied econometric analyses project.

YEAR 1 – FALL

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YEAR 1 – SPRING

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YEAR 2 – SUMMER

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<tr>
<td>PHS 740</td>
<td>Writing and Reviewing Scientific Papers</td>
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<td>PHS 747</td>
<td>Qualitative Methods and Analysis</td>
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YEAR 2 – FALL
PHS 714 US Healthcare Organizations and Delivery 3
PHS 701 Applied Demography 3
PHS 743 Program Evaluation for Pop-Level Interventions 3
PHS 749 Longitudinal and Multilevel Models 3

YEAR 2 – SPRING
PHS 713 Implementation Science 3
PHS 712 Science Communication and Dissemination I 3
PHS 753 Systems Science and Population Health 3
PHS 718 Proseminar 1

YEAR 3 – SUMMER
PHS 744 Bioethics and Society 1

YEAR 3 – FALL
PHS 760 Health Economics 3
PHS 763 Econometrics for Population Health 3
Elective Elective 3

YEAR 3 – SPRING
PHS 799 Doctoral Proposal Development 3
PHS 762 Economic Evaluation of Health Programs 3
Elective Elective 3

YEAR 4 – SUMMER
PHS 798 Doctoral Dissertation Seminar 1+

YEAR 4 – FALL
PHS 798 Doctoral Dissertation Seminar 1+

YEAR 4 – SPRING+
PHS 798 Doctoral Dissertation Seminar 1+

*Electives: With the approval of their advisor and program director, students can fulfill elective requirements from courses in other tracks or other departmental/school and university-wide electives, including PHS 791 – Independent Study. Additionally, from year 3 onwards, students in all tracks may take additional elective and independent study courses with the approval of their advisor and program director.

SCIENCE COMMUNICATION AND DISSEMINATION TRACK
The Science Communication and Dissemination track trains doctoral students in the methods of knowledge translation. Knowledge Translation has been defined as an iterative process that includes the synthesis, dissemination, exchange, and application of knowledge to improve health and health service delivery. There is a wide gap between evidence and practice in many aspects of health care delivery, health policy making, and community health practice. There is also increasing challenge with communicating proper health information to the public in this era of internet and social media-driven consumer health information. Students in this track will be trained to conduct research that increases the dissemination and uptake of sound information to improve health and health care in various settings.

YEAR 1 – FALL
PHS 700 Essentials of Population Health Science 3
PHS 702 Statistical Methods in Research 3
PHS 703 Epidemiology I 3
PHS 750 Population Health Research Methods I 3

YEAR 1 – SPRING
PHS 704 Epidemiology II 3
PHS 742 Multivariate Regression 3
PHS 717 Principles of Classic, Modern, and Emerging Health Behavior Theory 3
PHS 731 Social Determinants of Health 3
Electives: With the approval of their advisor and program director, students can fulfill elective requirements from courses in other tracks or other departmental/school and university-wide electives, including PHS 791 – Independent Study. Additionally, from year 3 onwards, students in all tracks may take additional elective and independent study courses with the approval of their advisor and program director.

VULNERABLE POPULATIONS TRACK

The track in Vulnerable Populations prepares doctoral students to conduct independent research to identify and address health disparities and their root causes in order to improve the health of vulnerable populations and health equity. Vulnerable populations include racial/ethnic minorities and other minority groups: the economically disadvantaged, the uninsured, the elderly, people with certain diseases such as HIV/AIDS, debilitating chronic health conditions, and severe mental illness, and rural residents who often encounter barriers to accessing health care services. As population health scientists and practitioners, graduates of this track will play a critical role in identifying and eliminating health disparities and advancing the health of vulnerable populations through research, advocacy, and programs.

YEAR 1 – FALL

PHS 700       Essentials of Population Health Science     3
PHS 702       Statistical Methods in Research            3
PHS 703       Epidemiology I                              3
PHS 750       Population Health Research Methods I      3
                           12

YEAR 1 – SPRING

PHS 704       Epidemiology II                             3
PHS 742       Multivariate Regression                    3
PHS 717       Principles of Classic, Modern, and Emerging Health Behavior Theory 3
PHS 731       Social Determinants of Health               3
                           12
YEAR 2 – SUMMER
PHS 740  Writing and Reviewing Scientific Papers  2
PHS 747  Qualitative Methods and Analysis  3

YEAR 2 – FALL
PHS 714  US Healthcare Organizations and Delivery  3
PHS 701  Applied Demography  3
PHS 743  Program Evaluation for Pop-Level Interventions  3
PHS 749  Longitudinal and Multilevel Models  3

YEAR 2 – SPRING
PHS 713  Implementation Science  3
PHS 712  Science Communication and Dissemination I  3
PHS 753  Systems Science and Population Health  3
PHS 718  Proseminar  1

YEAR 3 – SUMMER
PHS 744  Bioethics and Society  1

YEAR 3 – FALL
PHS 755  Improving the Health of Vulnerable Populations  3
PHS 745  Community Engagement and Community-Based Participatory Research  3
Elective  Elective  3

YEAR 3 – SPRING
PHS 799  Doctoral Proposal Development  3
PHS 748  Spatial Analysis and Geographic Information Systems for Population Health  3
Elective  Elective  3

YEAR 4 – SUMMER
PHS 798  Doctoral Dissertation Seminar  1+

YEAR 4 – FALL
PHS 798  Doctoral Dissertation Seminar  1+

YEAR 4 – SPRING+
PHS 798  Doctoral Dissertation Seminar  1+

Electives: With the approval of their advisor and program director, students can fulfill elective requirements from courses in other tracks or other departmental/school and university-wide electives, including PHS 791 – Independent Study. Additionally, from year 3 onwards, students in all tracks may take additional elective and independent study courses with the approval of their advisor and program director.

MD/PHD PROGRAM
PROGRAM DIRECTOR: Charles Chima, MBBS, DrPH, MSc
PROGRAM DESCRIPTION: The MD/PhD is a seven-year program consisting of the first three years of medical school (M1-M3), three years of graduate study in population health science (P1-P3) and the final year of medical school (M4). Years P1 through P3 are devoted to fulfilling the remaining program requirements for the PhD, including coursework and dissertation research. Enrolled students will be able to complete the PhD phase in 3 years.
PROGRAM OBJECTIVES: The goal of the MD/PhD track of the PhD in Population Health Science is to train medical students to become physician-scientists capable of conducting independent research to address clinical and non-clinical determinants of health to improve the health of populations.
ADMISSION REQUIREMENTS: The program accepts students for fall enrollment. To be considered for fall admission, all applications must be submitted and complete by April 15.
PhD in Population Health Science applicants will be evaluated based on the following:
- Master's degree in a relevant scientific discipline (e.g. health sciences, social sciences, etc.) or a professional degree in a health-related field
- Grade Point Average (GPA) of 3.0 or better (preferred)
- Three letters of recommendation
  - One letter from an academic referee
- A personal statement describing the applicant’s professional background and aspirations pertinent to the degree program.
- GRE score ≥300 on the combined verbal and quantitative scores is preferred.
In addition, applicants show previous coursework at the undergraduate or graduate level showing at least one course in statistics, research methods, and biology respectively, with a grade of B or better in each course.

PROGRAM COMPLETION REQUIREMENTS: The PhD degree is a research degree and is not conferred solely as a result of formal coursework, no matter how superior and extensive. 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. To receive the doctor of medicine degree, the candidate must meet all requirements as defined by the School of Medicine.

- **QUALIFYING EXAMINATION AND ADMISSION TO CANDIDACY** – The qualifying examination is given to graduate students in good academic standing upon completion of coursework and must be successfully completed for admission to candidacy for the doctor of philosophy degree.

- **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 SOPH. 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 thesis can be found on the [SOPH Dissertation and Thesis website](#).

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### M0 or M1 – SUMMER

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### P1 – FALL

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### P1 – SPRING

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### P2 – SUMMER

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<td>PHS 701</td>
<td>Applied Demography</td>
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<td>PHS 743</td>
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<tr>
<td>PHS 749</td>
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<td>Systems Science and Population Health</td>
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<td>PHS 799</td>
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**COURSES OF INSTRUCTION**

**BDS 711. Statistical Methods in Research.** Provides an introduction to selected important topics in statistical concepts and reasoning.
This course represents an introduction to the field and provides a survey of data types and analysis techniques. Specific topics include applications of statistical techniques such as point and interval estimation, hypothesis testing (tests of significance), correlation and regression, relative risks and odds ratios, sample size/power calculations and study designs. While the course emphasizes interpretation and concepts, there are also formulae and computational elements such that upon completion, class participants have gained real world applied skills. Traditional Lecture (3 hours)

**BDS 712. Statistical Methods in Research II.** A continuation of Statistical Methods in Research 1, this course introduces the student to more complicated methods than those discussed in the first course including generalized linear models, survival models and longitudinal data analysis. The emphasis will be on applied rather than theoretical statistics, and on understanding and interpreting the results of statistical analyses. Datasets will be analyzed using the statistical package STATA. This is a hands-on class with computer labs. Datasets will be analyzed under the supervision of instructors. Traditional Lecture (3 hours)

**BDS 713. Intro to Data Management and Programming.** Provides an introduction to programming and data management. The course will focus on planning and organizing programs to handle and process data, as well as the grammar of particular programming languages. Traditional Lecture (3 hours)

**BDS 714. Statistical Methods for Clinical Trials.** Provides a basic understanding of the statistical concepts important in the design, conduct and analysis of clinical trials. Traditional Lecture (3 hours)

**BDS 715. Intro to Sample Survey Analyses.** Provides an introduction to statistical concepts in the design and analyses of sample surveys. Covers topics such as instrument design, sampling procedures, variance estimation, reliability, validity, scaling and scoring, complex samples and weighting procedures. Traditional Lecture (3 hours)

**BDS 721. Analytics.** Provides an introduction to basic statistical and data analytic methods. This course covers topics such as data archetypes; exploratory data analysis; basic statistical paradigms including frequentist, likelihood and Bayesian approaches; contingency tables; sampling distributions; the Central Limit Theorem; point and interval estimation; sufficiency; tests of statistical significance including large sample, likelihood ratio and resampling approaches; basic random variable linear combinations; ANOVA; correlation; and linear, logistic, and Poisson regression. Course content will be delivered through lectures, hands-on lab instruction and team-based learning using multiple statistical packages (R, SAS and Stata). Traditional Lecture (3 hours)

**BDS 722. Advanced Analytics.** Continues introductions to intermediate and advanced statistical analysis methods for biomedical research. This course covers advanced regression topics, generalized linear models (GLM), generalized additive models (GAM), splines and smoothing techniques, decision trees, basic survival models, and introduces machine learning techniques (clustering, classification, regularization/penalized regression, feature selection, Bayesian methods, and unbiased estimators). Course content will be delivered through lectures and hands-on lab instruction. Traditional Lecture (3 hours)

**BDS 723. Statistical Programming with R.** This course will provide students with an introduction to statistical computing. Students will learn the core ideas of programming — functions, objects, data structures, flow control, input and output, debugging, logical design and abstraction — through writing code to assist in numerical and graphical statistical analyses. This course will emphasize the learning of statistical methods and concepts through hands-on experience with real data. Since code is also an important form of communication among scientists, students will learn how to comment and organize code. Traditional Lecture (3 hours)

**BDS 724. Longitudinal and Multilevel Models.** Covers statistical models for drawing scientific inferences from clustered/correlated data such as longitudinal and multilevel data. Topics include longitudinal study design; exploring clustered data; linear and generalized linear regression models for correlated data, including marginal, random effects, and transition models; and handling missing data. Online, Internet, or Web-based Lecture (3 hours)

**BDS 725. Survival Analysis.** This course introduces basic concepts and methods for analyzing survival time data obtained from following individuals until occurrence of an event or their loss to follow-up. We will begin this course from describing the characteristics of survival (time to event) data and building the link between distribution, survival, and hazard functions. After that, we will cover non-parametric, semi-parametric, and parametric models and two-sample test techniques. In addition, we will also demonstrate mathematical and graphical methods for evaluating goodness of fit and introduce the concept of dependent censoring/competing risk. During the class, students will also learn how to use SAS to analyze survival data. Traditional Lecture (3 hours)

**BDS 726. Generalized Linear Models.** Provides a foundation in the theory and application of generalized linear models and related statistical topics. A generalized linear model (GLM) is characterized by (1) a response variable with a distribution in an exponential dispersion family and (2) a mean response related to linear combinations of covariates through a link function. GLMs allow a unified theory for many of the models used in statistical practice, including normal theory regression and ANOVA models, many categorical data models including logit and probit models for binary data, loglinear models, and models for gamma responses and survival data. Traditional Lecture (3 hours)

**BDS 727. Nonparametric Analyses.** Provides an introduction to modern topics in nonparametric data analysis for estimation and inference. Topics include kernel estimation, rank based methods, nonparametric regression, confidence sets and random processes. Methodology and theory are presented together. Traditional Lecture (3 hours)

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*MD/PhD students in their third year must take at least three elective hours from any of the courses offered by the Department of Population Health Science, with the approval of the graduate program director.
BDS 728. Multivariate Analysis. Provides an introduction of the analysis of multivariate data, balancing theory, implementation and translation of these methods. Topics covered include matrix computations, visualization techniques, the multivariate normal distribution, MANOVA, principal components analysis, factor analysis, and other clustering techniques. Traditional Lecture (3 hours)

BDS 739. Computational Statistics. This course will cover efficient methods for obtaining numerical solutions to statistical problems. Topics include numerical optimization in statistical inference [expectation-maximization (EM) algorithm, Fisher scoring, etc.], Monte Carlo methods, random number generation, jackknife methods, bootstrap methods, kernel density estimation, and splines. Traditional Lecture (3 hours)

BDS 741. Statistical Inference I. Introduces probability and distribution theory, including axioms of probability; random variables; probability mass and density functions; common discrete and continuous distributions; transformations and sums of random variables; expectations, variances, and moments; hierarchical models and mixture distributions; and properties of random samples. Traditional Lecture (3 hours)

BDS 742. Statistical Inference II. This course is a continuation of Statistical Inference I and continues to introduce modern statistical theory and principles of inference based on decision theory and likelihood (evidence) theory. Traditional Lecture (3 hours)

BDS 743. Theory of Linear Models. Provides an introduction to the development and use of general linear models including frameworks for parameter estimation and inference in a variety of settings. Theoretical foundations of the models will be reinforced with areas in which the models are applied to answer scientific questions. Topics covered include matrix algebra, distribution theory with areas in which the models are applied to answer scientific questions. Traditional Lecture (3 hours)

BDS 744. Theory of Linear Models. Provides an introduction to the development and use of general linear models including frameworks for parameter estimation and inference in a variety of settings. Theoretical foundations of the models will be reinforced with areas in which the models are applied to answer scientific questions. Topics covered include matrix algebra, distribution theory with areas in which the models are applied to answer scientific questions. Traditional Lecture (3 hours)

BDS 745. Advanced Statistical Genetics. An advanced course on modeling and methodology in statistical genetics for human diseases and traits. The course will cover topics including linkage analysis, population structure and stratification, admixture mapping, heritability and genetic risk prediction, familial aggregation, association analysis and others. On successful completion, participants will have the skills to develop and apply statistical methods towards a variety of genetic questions. Traditional Lecture (3 hours)

BDS 750. Study Design. This course will equip doctoral-level biostatisticians and data scientists with the skills necessary to participate in the planning and analysis of biomedical, clinical, and population-based health studies. This course will cover a wide array of study designs, one and two-way classifications, nesting, blocking, factorial designs, multiple comparisons, confounding, power, sample size, and selected issues (randomization, blindness, adherence, dropout, phases) from clinical trials. Traditional Lecture (3 hours)

BDS 751. Statistical Inference in Genetics. This course will present fundamental theoretical concepts and statistical inference with emphasis on genetic epidemiology research for common human diseases. Five modules will be covered, including an introduction to statistical inference methods used on genetic data, familial aggregation methods, segregation analysis, linkage analysis, and testing associations between genetic variants and disease. Traditional Lecture (3 hours)

BDS 752. Advanced Statistical Genetics. An advanced course on modeling and methodology in statistical genetics for human diseases and traits. The course will cover topics including linkage analysis, population structure and stratification, admixture mapping, heritability and genetic risk prediction, familial aggregation, association analysis and others. On successful completion, participants will have the skills to develop and apply statistical methods towards a variety of genetic questions. Traditional Lecture (3 hours)

BDS 753. Bioinformatics. Provides an introduction to selected important topics in bioinformatics. The course focuses on integrating bioinformatics resources with basic biology and clinical applications to enhance population health research. Includes methods for the analysis of high-throughput next-generation sequence data and an introduction to the use of bioinformatics databases in precision medicine and population health. Covers common programs and algorithms for sequence alignment, evolutionary tree construction, database searching, functional interpretation of expressed genes, and identifying genetic mutations for human disease. Traditional Lecture (3 hours)

BDS 754. Principles of Programming with Python. This course will introduce fundamental programming concepts such as data structures and algorithms, object oriented programming, and the basics of building interactive applications in the python programming language. Traditional Lecture (3 hours)

BDS 761. Data Science. Provides a modern introduction to data science, including data wrangling and dynamic data visualization processes, while reinforcing reproducible research and applied statistical methods. Course content will be delivered through lectures and hands-on lab instruction. Traditional Lecture (3 hours)

BDS 762. Advanced Data Science. Provides a continuation into advanced Data Science topics with deeper programming and additional concepts. Topics include simulation, bootstrap, prediction, machine learning, and tool development. Course content will be delivered through lectures and hands-on lab instruction. Traditional Lecture (3 hours)

BDS 763. Database Systems. Review of database systems with special emphasis on data description and manipulation languages; data normalization; functional dependencies; database design; data integrity and security; distributed data processing; design and implementation of a comprehensive project. Traditional Lecture (3 hours)

BDS 764. Data Visualization. Provides an introduction to principles and techniques for creating effective interactive visualizations of quantitative information. Primary topics include principles for designing effective visualizations and implementing interactive visualizations using web-based frameworks. Traditional Lecture (3 hours)

BDS 765. Advanced Machine Learning. This course introduces students to the basic theories, concepts, and techniques of machine learning and gives them a glimpse of the state-of-the-art methods in this area. Topics covered include Bayesian estimation and decision theory, maximum likelihood estimation, nonparametric techniques, linear discriminant analysis, computational learning theory, support vector machines and kernel methods, boosting, clustering, dimensional reduction, and deep learning. Traditional Lecture (3 hours)

BDS 766. Advanced Computational Methods. Provides a blend of software engineering, stochastic processes and optimization for creating and deploying efficient analytic tools. Topics covered include software engineering paradigms, robust software design, data structure, object oriented design, parallel computations, and distributed computing, with a focus on implementation. Traditional Lecture (3 hours)
BDS 791. Special Topics. This course is intended to meet special needs of individual students. Students who wish to learn more about a particular topic can approach a mentor to determine an advanced course of study for that topic. The structure of an individual course is decided upon by the course director with approval from the curriculum committee. Traditional Independent Study (1-9 hours)

BDS 792. Statistical Consulting. Provides hands-on training and experience in statistical consulting. Written and oral communication skills are emphasized, working with prospective collaborators and ethical aspects of consulting are discussed. Traditional Practicum/Internship (1 hour)

BDS 793. Seminar Series: Microtopics. This course consists of attending the weekly Department of Data Science faculty seminar series. The goal of this seminar series is to expose students to current research topics in the field, to also give them exposure to seminar presentations, and to offer further detail into faculty research areas to assist in proposing a dissertation topic and research mentor. Traditional Lecture (1 hour)

BDS 794. Journal Club. This biweekly journal club will include student presentations of high-impact or seminal biostatistics, data science, or genomics journal articles. Each participating student will be required to present once per semester, with additional presentations by non-registered students, faculty, and staff. Traditional Lecture (1 hour)

BDS 796. Directed Research. Provides students to the opportunity to conduct research under the guidance of a faculty member from the Department of Data Science. Traditional Laboratory (3 hours)

BDS 797. Biostatistics & Data Science Internship. A work experience conducted in the Department of Data Science, an affiliated department, center, or institute at the University of Mississippi Medical Center, or a public or private organization. The internship is focused on the development of real world analytic, programming, and communication skills. Traditional Practicum/Internship (1-9 hours)


PHS 700. Essentials of Population Health. Introduction to how the multiple determinants of health (e.g., health care, socioeconomic status, genetics, the physical environment and health behavior, and their interactions) have implications for the health outcomes of populations. Characteristics of populations defined by geography, diagnosis, and/or point of care will be discussed. Avenues in which health care systems, public health agencies, community-based organizations, retail health organizations work together to improve local, national, and global communities. Students will also learn how to view problems from a population health and population health management perspective. Descriptions of how clinical and non-clinical data is used to measure health-related outcomes, analyze patterns, communicate results, and develop evidence-based intervention practices to manage health of populations will be explored. Traditional Lecture (3 hours)

PHS 701. Applied Demography. The course provides an applied overview of common methodological approaches, major conceptual issues, and recent empirical research in demography. Demography is the study of the causes and consequences of population change. Populations change in size and composition in response to three basic phenomenon: fertility, mortality, and migration. Course readings and discussions will draw on research in multiple disciplines to provide students a framework for evaluating how social, economic, historical, cultural, and political factors interrelate with these demographic processes. Students will be introduced to the data, statistics, and substantive issues of demography including mortality, fertility, migration, population composition, population distribution, population policy and the relationship between population and environment. Traditional Lecture (3 hours)

PHS 702. Statistical Methods in Research. This course provides an introduction to selected important topics in statistical concepts and reasoning. This course represents an introduction to the field and provides a survey of data types and analysis techniques. Specific topics include applications of statistical techniques such as point and interval estimation, hypothesis testing (tests of significance), correlation and regression, relative risks and odds ratios, sample size/power calculations and study designs. While the course emphasizes interpretation and concepts, there are also formulae and computational elements such that upon completion, class participants have gained real world applied skills. Online, Internet, or Web-based Lecture (3 hours)

PHS 703. Epidemiology I. This course will introduce students to the principles and methods of epidemiology in human populations, including study design (randomized trials, case-control studies, cohort studies, and cross-sectional studies), risk estimation, and methods of causal inference. Online, Internet, or Web-based Lecture (3 hours)

PHS 704. Epidemiology II. This course will present and illustrate advanced concepts in epidemiologic methods with an emphasis on observational studies. Topics include causal inference in epidemiology, measures of disease frequency, measures of association, application of statistical methods commonly used in epidemiologic studies (e.g., stratified and logistic regression analysis), calculation of sample size and statistical power, precision and validity in epidemiologic studies, quantification of bias (e.g., information and selection bias), assessing confounding and effect modification, interpretation and critique of results from various epidemiologic studies including meta-analysis Traditional Lecture (3 hours)

PHS 705. Value-based Healthcare Del & Pay Models. Health care systems in the US and around the world are pursuing value-based health care (VBHC) reforms that seek to achieve the triple aim of better care for individuals, better health for populations, and lower cost of care per capita. In VBHC, health care payers and purchasers hold health care providers accountable for delivering high-quality care and spending health care dollars more wisely. VBHC delivery models include Accountable Care Organizations (ACOs) and non-ACO models. ACOs are networks of hospitals, doctors, and other health care providers that share financial and clinical responsibility for providing coordinated care to patient populations in hopes of limiting unnecessary spending. Both ACO and non-ACO value-based payment models will be covered in this course. Traditional Lecture (3 hours)

PHS 706. Population Health and Consumerism. Hospitals and health systems are re-inventing themselves and working with providers and their communities to position their organizations for success in an environment that demands high-value, lower-cost and efficient health care. But as hospitals and health systems transition to value-based care, they must do so with an eye on the consumer. Patients, and their families, will be more informed and savvy in making health care purchasing decisions. This course will familiarize students with the growing movements in both healthcare consumerism and population health management. Online, Internet, or Web-based Lecture (3 hours)
PHS 709. Population Health Management. This course will introduce students to the applied field of population health management through the use of case studies and key elements of population health management such as development of accountable care processes and infrastructure, payer relationships, care coordination, health and financial management systems, and leadership. Descriptions of how clinical and non-clinical evidence is used to measure health-related outcomes, analyze patterns, communicate results and identify best practices and implement effective interventions to manage the health of clinical populations. The importance and challenges of the translation of data and information into intelligence for clinical and health policy decision-making will be emphasized. Online, Internet, or Web-based Lecture (3 hours)

PHS 710. Clinical Coaching. The purpose of this course is to increase the knowledge and skills of clinicians in coaching patients to make lasting lifestyle management changes. It is envisaged that undertaking this subject will contribute to the professional development, knowledge base and performance of those involved in clinical coaching. Given the evolution of the U.S. health care system, health care providers are incentivized to produce better patient outcomes and to reduce recurring patient visits. Employers are prioritizing health and wellness in the workplace, aiming to cut costs and increase productivity. Given these changes, it is important for clinicians to increase their skill set in the provision of clinical coaching, as well as enhancing their knowledge of evidence-based approaches for motivating behavior change, and understanding of how to incorporate clinical coaching into clinical practice. Online, Internet, or Web-based Lecture (3 hours)

PHS 711. Healthcare Quality and Safety. This course provides an overview of health care quality and safety. Students will learn fundamental quality improvement concepts and techniques. Quality measurement, assessment, and improvement frameworks will be explored as they apply to clinical, safety, and patient satisfaction outcomes. Traditional Lecture (3 hours)

PHS 712. Science Communication & Dissemination I. This is a foundation course in science communication theory, research, and practice in the context of health promotion and health care. This course is based on the premise that scientists, and increasingly, other practitioners and educators, are agents of change in creating research impact, promoting research utilization, and ensuring that research findings reach appropriate audiences. This course is designed to increase practical knowledge, competencies and skill set necessary for translating scientific knowledge to various communities and populations. Online, Internet, or Web-based Lecture (3 hours)

PHS 713. Implementation Science. This course is an introduction to implementation science and its relevance to population health science and practice. Implementation science is the scientific study of methods to promote the uptake of research findings in real world settings such as clinical, organizational, community, or policy environments. The course will first highlight current challenges in population health and the role of implementation science in addressing them, including the development of practice-based research activities and the provision of technical support for program implementation. Common implementation research frameworks will be introduced. Online, Internet, or Web-based Lecture (3 hours)

PHS 714. US Healthcare Organizations and Delivery. Focuses on the organization, financing, and delivery of healthcare in the U.S. Contrasts the private and public sectors and examines the effects of market competition and government regulation. Examines the ways that medical providers are paid, and explores the major issues currently facing physicians, hospitals, and the pharmaceutical industry. Also discusses several potential small and large scale reforms to the U.S. healthcare system and evaluates their likely effects on healthcare spending, quality of care, and access to care. Online, Internet, or Web-based Lecture (3 hours)

PHS 715. Health Disparities Seminar. This course will examine relevant historical issues, theories, and empirical data, emphasizing critical analysis and application of knowledge. Disparities will be discussed relative to race/ethnicity, gender, income, and sexual orientation. Students will gain a better understanding of research on health disparities and interventions to promote health equity through a combination of readings, reflection papers, and in-class exercises. Students will summarize the evidence regarding a specific health disparity (topic and population of their choice). Traditional Lecture (3 hours)

PHS 716. Interventions for Org. Behavior Change. This course is designed to provide students with a conceptual framework addressing the strategic importance of managing change and organization development (OD) in various agencies, health care organizations, human service organizations, community organizations and other settings. Uncertainty, complexity and rapidly changing organizational environments create the necessity for organizations to respond to and effectively deal with turbulence and instability. The capability of an organization's human resources to adapt to such conditions, adopt and successfully use new practices, technologies and develop ways of performing organizational tasks is vital to proactive and sustainable human service organizations. Managing change and OD are essential to these processes. Students will also learn LEAN and six sigma methodologies as key tools for process improvement in healthcare settings that require the management of multidisciplinary teams. Traditional Lecture (3 hours)

PHS 717. Health Behavior Theory. This course will provide an overview of social and behavioral science theories and frameworks that are currently used to: 1) understand health related behaviors; and 2) guide development of interventions and policies designed to prevent, reduce or eliminate major public health problems. Population health is an interdisciplinary field built upon other disciplines such as sociology, psychology, economics, demography, and public health. As a result, this course will cover classic theories in psychology and sociology; the leading health behavior theories in public health, and emerging theories used in population health interventions. Traditional Independent Study (3 hours)

PHS 718. Proseminar. Proseminars are professionalism courses that provide an entree into a field. This course will review the evolution of the field of population health science and the school of population health, and take a look at developments and the future of the field. Traditional Lecture (1 hour)

PHS 720. Population Health Informatics. This course will focus on the concepts, theories and practices of the evolving discipline of health informatics. Differentiation between approaches used in this field versus health information technology will be highlighted. Health informatics is defined as the method of acquiring, storing, retrieving, and using healthcare information to foster better collaboration among patients and health care providers. This evolving specialization links information technology, communication and health care to improve the quality and safety of patient care. Online, Internet, or Web-based Lecture (3 hours)
PHS 721. Digital Healthcare. This course introduces students to the utility of information and communication technologies (ICT) within modern healthcare practice. Students will learn about a range of digital technologies and applications in the areas of clinical practice, education and administration that are fast becoming commonplace. The course fosters awareness of digital health at national and international levels; it examines the characteristics of digital health innovation, strategic vision and deployment in various countries such as Australia, US, Canada, Europe and the developing world. While evaluating the technological advances relative to patient-centered care, students will also study the potential pitfalls of the use of technology in healthcare. The course draws attention to the associated social, ethical, legal issues and workflow issues that must be considered when integrating digital health into clinical practice. Traditional Lecture (3 hours)

PHS 722. Health Information Visualization. Information visualization is the use of interactive visual representations of data to amplify human cognition. This course provides an introduction to the theories, principles and techniques for creating effective interactive visualizations of quantitative health information. The course will take a hands-on approach and will teach how to carry out visual analytics using a modern data visualization software. Traditional Lecture (3 hours)

PHS 724. Environmental Health. This course offers a general introduction to environmental health from 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 hours)

PHS 725. GIS in Healthcare and Epidemiology. This course prepares students to apply geographic information systems in population health related studies. This course combines the understanding of spatial analysis and application. This is the second level graduate GIS at UMMC. Traditional Lecture (3 hours)

PHS 726. Intro to GIS. This course introduces the fundamental concepts and applications of geographic information systems. 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 health professionals. This is the first course of a series of geospatial information technology at UMMC. Traditional Lecture (3-4 hours)

PHS 730. Health Prom, Disease Prev, and Care Mgt. The course is concerned with the socio-cultural, behavioral, psychological, and biological factors contributing to wellness and disease prevention. Students will be introduced to the theory and application of health promotion principles and will review and critically assess the current efforts to influence lifestyle change, at both the individual and population levels. Online, Internet, or Web-based Lecture (3 hours)

PHS 731. Social Determinants of Health. This course analyzes the social factors, such as inequalities in income and opportunities, and racial/ethnic disparities that influence the health of populations. The course examines the effect of economic, social, cultural, and environmental factors on population health. The course looks at how systematic variation in these factors lead to health disparities, and explores how economic, social and cultural conditions interact with other determinants of health such as human behavior and biology. The course also reviews the methods used in health disparities research and assesses relevant economic and social policies. Online, Internet, or Web-based Lecture (3 hours)

PHS 732. Global Health: Disp, Deter, Pol, & Out. This course will focus on four main topics: 1) the burden and distribution of disease and mortality; 2) the determinants of global health disparities; 3) the development of global health policies; and 4) the outcomes of global health interventions. Substantial attention will be given to the difference in terminology used to describe inequalities across countries, the underlying historical assumptions that undergird those definitions, and the resulting solutions that are implemented as a result. Factors that highlight how global health disparities and global health policy responses are shaped by social, economic, governmental, and political forces will be discussed. Online, Internet, or Web-based Lecture (3 hours)

PHS 739. Science Communication & Dissemination II. This is an applied course in science communication and dissemination, designed to advance students’ knowledge of health and science communication theory, research, and practice. The major course objective is to provide opportunities to develop skills in communicating complex scientific information and study findings to multiple audiences. The course will expose students to various contexts for science communication including interpersonal, small group, and mass media. Traditional Lecture (3 hours)

PHS 740. Foundations of Scientific Writing. This course covers how to conduct a literature review, and interpret and evaluate scientific literature that focuses on population health. In addition, this course will provide students with fundamental skills of writing scientific manuscripts. Skills obtained in this course will prepare students for writing theses/dissertations, and peer-reviewed manuscripts. Traditional Lecture (1-3 hours)

PHS 742. Multivariate Regression. This course introduces the basic concepts and steps associated with multivariable statistical modeling. It integrates methods with performing the steps using data analysis tools such as Stata. Presents use of generalized linear models for quantitative analysis of data encountered in public health and medicine. Specific models include analysis of variance, analysis of covariance, multiple linear regression, logistic regression, and Cox regression. Applied linear regression involving hands-on data analysis will be emphasized. Students enrolling for this course should have taken at least one other graduate level statistics course and should be conversant with the basic fundamentals of statistical testing and estimation. Traditional Lecture (3 hours)

PHS 743. Prgm Eval for Pop-Level Interventions. This course is designed to cover a wide range of assessments including individual programs, institutional and governmental policies. Evaluators work with program staff and stakeholders to clarify a program’s operational theory and goals, develop information to help tailor an intervention to a specific audience, document a program’s specific activities, reach, and outcomes, and develop information about the impact of a program or policy on a specific community health concern. This practical course will cover the core knowledge and skills involved in program evaluation, provide hands-on experience in evaluation design, and provide exposure to some of the ethical and philosophical issues current in evaluation research. The course will be conducted entirely online. Course activities will be focused on giving students hands-on experience in the specific research skills and tools required for effective program evaluation. Traditional Lecture (3 hours)
PHS 744. Bioethics and Society. This is a case-method course, consisting of discussion of the fundamental basics of bioethical theory. In this class, students will learn the fundamentals of bioethical theory and then apply this knowledge in developing a language and toolbox for making decisions when faced with dilemmas and ethical conflicts in a healthcare setting and in regard to issues of health and healthcare. The underlying concepts are vital to selecting and applying the appropriate frame to view these dilemmas and ethical conflicts. Traditional Lecture (1 hour)

PHS 745. Comm Eng and Comm-Based Particip Rsrch. Community engagement strategies that affect health behavior are increasingly important for improving the health of populations. Introduces the principles and applied methods of community-engaged research, including defining the community and partnership models for identifying relevant research questions. The course will cover community assessment, coalition building, choosing community partners, ethical issues of community work and important methodological issues of community-based participatory research. It is intended to develop and expand the skills of population health professionals in designing and delivering culturally congruent health promotion program in community settings. Traditional Lecture (3 hours)

PHS 746. Systematic Review. This course introduces the methods of systematic review and meta-analysis, including formulating questions, criteria for relevance and rigor in selecting primary studies, search strategies, coding protocols, tables and other formats for presenting data, qualitative and quantitative representations of effect sizes from individual primary studies, and analyses of groups of studies to estimate an average effect size and to explain variation. Each student works on his/her own project with the goal of producing a complete proposal/protocol and taking preliminary steps in all phases of the systematic review process. This course will include a STATA-based workshop in meta-analysis. The course will also provide an overview of evidence-based medicine and evidence-based public health practice. Traditional Lecture (3 hours)

PHS 747. Qualitative Methods and Analysis. This course will use a combination of didactic, interactive, and applied techniques to teach methodological and analysis techniques in qualitative research. Students will review theoretical approaches and explore the connections between overarching theoretical frameworks, data collection methods, and analysis strategies. Students will have the opportunity to learn and practice qualitative methodologies for use with different populations and conduct in-depth observations and interviews. Students will also learn and practice coding and axial coding techniques for data analysis. Different analytical approaches and software coding programs will be explored and examined. Traditional Lecture (1-3 hours)

PHS 748. Spatial Analysis and GIS. Introduces the field of spatial analysis and its application to population health research and planning. Concepts are examined through the use of ArcGIS Geographic Information System (GIS) mapping software as a tool for integrating, manipulating, and displaying health related spatial data. GIS topics covered include mapping, geocoding, and manipulations related to data structures and topology. Introduces the spatial science paradigm: Spatial Data, GIS, and Spatial Statistics. Selected case studies are used to demonstrate concepts along the paradigm. Focus is on using GIS to generate and refine hypotheses about population health related spatial data in preparation for follow up analyses. Prerequisite: PHS 702 Statistical Methods in Research or equivalent. Traditional Lecture (3 hours)

PHS 749. Longitudinal and Multilevel Models. This course covers statistical models for drawing scientific inferences from clustered/related data such as longitudinal and multilevel data. Topics include longitudinal study design; exploring clustered data; linear and generalized linear regression models for correlated data, including marginal, random effects, and transition models; and handling missing data. Traditional Lecture (3 hours)

PHS 750. Population Health Research Methods I. This course will introduce the major components in research methods including: qualitative and quantitative study designs, selection of study populations, formulation of research questions, hypothesis formulation, levels of measurement, sampling, measurement, instrumentaton, and study interpretation issues. Emphasis will be placed on research methods from social science origins, including an introduction to qualitative research theory and design. Online, Internet, or Web-based Lecture (3 hours)

PHS 752. Designing and Conducting Health Surveys. This course is a theoretical and practical overview of survey methodology, with survey research design and implementation as the major focus. Central to this course is survey quality, the variety of settings in which survey data is collected, devices for data collection, data processing, and survey data analysis techniques. Best practices and guidelines for phases of survey from design to implementation, analysis and reporting will be discussed. Traditional - EL Lecture (3 hours)

PHS 753. Systems Science and Population Health. This course provides an introduction to systems science and its applications to population health science and practice. Health and health care improvement challenges tend to be complex and involve multiple actors and institutions. Unlike traditional cause and effect or linear thinking models, systems thinking and complexity science is characterized by nonlinearity, hence traditional statistical methods are often inadequate for analyzing or predicting outcomes that depend on many interacting and adaptive parts. Systems thinking is a core skill that helps health professionals build programs and policies that anticipate and prepare for unintended consequences. Students will learn new ways of thinking about problem solving, including a range of powerful conceptual techniques suitable for planning interventions in complex and uncertain environments and use of systems models to devise strategies to account for real world complexities in research translation. Traditional Lecture (3 hours)

PHS 755. Improving the Health of Vulnerable Pop. This course provides intensive coverage of contemporary topics in vulnerable populations in health care and health research. It explores definitions of vulnerability and provides a conceptual model for considering issues of vulnerability in a health care, health research, or public health context. It guides students through practical considerations for working with a variety of vulnerable populations. Traditional Lecture (3 hours)

PHS 756. HIV/AIDS in the United States. This course offers an immersion experience in the HIV/AIDS epidemic in the United States. Seminar topics to be covered include: historical context, epidemiology and trends, wide and persisting disparities, old and emerging challenges, and advances and opportunities in prevention and treatment. Students will have an immersion experience in nationally acclaimed cutting-edge research and service programs in Jackson, Mississippi, with emphasis on improving equity for sexual minorities with or at-risk for HIV infection. Traditional Lecture (3 hours)
PHS 757. Health Equity Research Methods. This course covers theory and practical methods for developing and conducting research with the goal of improving health equity. Introduces methods and skills required to conduct rigorous health equity research and translate evidence-based strategies into practice and policy. It goes beyond methods for identifying health disparities to methods for addressing such disparities through research. Traditional Lecture (3 hours)

PHS 760. Health Economics. This course covers the theory of microeconomic analysis and its application to health and health services. It emphasizes the use of theory to understand problems of organization, delivery, and financing of health services; discrepancies in health levels among members of society; and the choices available to society regarding these issues. Doctoral students will be required to write a paper that identifies and discusses the major policy and research issues in one of the areas of health economics that is introduced in the course. Traditional Lecture (3 hours)

PHS 761. Healthcare Finance. This course covers key financial concepts and principles in the health care industry. Managerial and financial accounting, as well as financial analysis and strategic planning, are covered. Financial management under prospective payment and capitation systems, as well as product costing and pricing, will be emphasized. Risk-based contracting and other anticipated changes to financial management due to health care reform will be introduced. Traditional Lecture (3 hours)

PHS 762. Methods for Econ Eval of Health Programs. This course deals with comparative effectiveness research that takes cost into consideration. It covers the concepts and methods for the economic analysis of healthcare decision alternatives. Topics will include cost-benefit, cost-effectiveness and cost-utility analysis, and other methods of decision analysis. It emphasizes the application of these methods to the evaluation of alternative health programs. Prerequisite: PHS 760 Health Economics. Traditional Lecture (3 hours)

PHS 766. Behav., Econ., & Health Decision-Making. Behavioral economics is the study of emotional and psychological influences on decision-making. This course offers an introduction to behavioral economics and its applications to health and health care decision-making. It covers theories behind why people make certain health-related economic decisions, especially when those decisions may be contrary to their best interest. Students will learn the impact that behavioral factors affecting patients, providers, and patient-provider interaction can have on decision-making, treatment choices, costs, and health outcomes. Application of behavioral economics to influencing patient and provider behavior in health care settings, as well as application of behavioral economics to public policy making will be covered. Traditional Lecture (3 hours)

PHS 790. Special topics in PHS. The focus of this Special Topics course may vary by semester. It is designed to respond to contemporary issues in population health as well as to cover specific areas of faculty and/or students’ interest. Traditional Lecture (1-3 hours)

PHS 791. Independent Study. This course is intended to meet special needs of individual students. Students who wish to learn more about a particular topic can approach a mentor to determine an advanced course of study for a particular topic. The structure of an individual course is decided upon by the individual course instructor with approval from the program committee. Traditional Independent Study (1-9 hours)

PHS 796. Thesis and Thesis Research. The purpose of this culminating course is for students to produce a written, independent scientific research work. During the course, students will demonstrate their ability to independently plan, carry out and present (orally and written) their research on a topic that addresses a current population health-related issue. This involves formulating a research question and objectives, selecting appropriate methods, collecting and analyzing data, and presenting and discussing results in relation to relevant scientific literature. Online, Internet, or Web-based Thesis (1-9 hours)

PHS 797. Practice Transformation Practicum. This course will guide students through the conduct of a practice transformation practicum, which is a planned and evaluated work experience that compliments the classroom education, and allows them the opportunity to apply the lessons learned in their course work. The practicum experience is designed to enhance students’ experience in the field of population health, and is key to a comprehensive understanding of population health practice in various settings. Success is defined by the exposure to valuable work experience, improvement in subject matter knowledge, and achievement of course objectives. Traditional Practicum/Internship (1-6 hours)

PHS 798. Doctoral Dissertation Seminar. This is a seminar course for doctoral students in Population Health Science who are currently working on their dissertation. The seminar provides students the opportunity to present and discuss their work in a supportive environment. Faculty may also present ongoing research. Traditional Dissertation (1-9 hours)

PHS 799. Doctoral Proposal Development. This course deals with both the theoretical and practical aspects of designing dissertation research and successfully defending the design in a proposal hearing. The purpose of the course is to assist students through the proposal and dissertation writing processes. This course covers the structure and content of a student dissertation research proposal, scientific writing conventions, strategies for conducting a literature search, critical evaluation and synthesis of literature, development of specific aims and research methods, procedures for writing and editing research proposals, and presentation of population health information. Students will be introduced to the process of acquiring and managing extramural funding for sponsored projects with emphasis on NIH research grants. Students will be encouraged to flesh out their doctoral dissertation proposal and to complete a pre-doctoral grant application during this course. Traditional Dissertation (3 hours)

PM 657A. Clinical Preventive Medicine. This is a four (4) week rotation in preventive medicine where fourth year medical students will gain hands on experience in nutrition, physical activity, weight management, stress reduction, and sleep management as tools in preventing and reversing chronic diseases and their complications. This rotation is designed for students who are interested in understanding and intervening in the root causes driving the chronic disease epidemic in Mississippi and the country. Utilizing case presentations, lectures, discussions, readings, and hands-on experiences, students will: 1) gain the knowledge to live a healthy lifestyle through proper nutrition, physical activity, weight management, stress reduction and smoking cessation, 2) achieve the ability to provide effective lifestyle counseling in the clinical setting and 3) identify and demonstrate understanding of the role of health care partners in achieving lifestyle changes for their patients. (2 students each block. Available all blocks.) Traditional Clinical Rotation (10 hours)
PM 725. Environmental Health. This course offers a general introduction to environmental health from 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 hours)

PM 797. Preventive Medicine Practicum. This course provides an opportunity for students to apply their knowledge of core topics in clinical prevention and population health in the health care environment, and to communicate about these topics with other physicians. Traditional Practicum/Internship (1-9 hours)
school of pharmacy

The University of Mississippi
Medical Center
ACADEMIC CALENDAR
The School of Pharmacy academic calendar may be viewed online at https://pharmacy.olemiss.edu/blog/events/student-academic-calendar/.

School of Pharmacy
David D. Allen, RPh, Ph.D., Dean
Leigh Ann Ross, Pharm.D., BCPS, Associate Dean for Clinical Affairs
T. Kristopher Harrell, Pharm.D., M.A., Associate Dean for Academic Affairs
Soumyajit Majumdar, Ph.D., Associate Dean for Research and Graduate Programs
Alicia S. Bouldin, Ph.D., Associate Dean for Outcomes Assessment and Learning Advancement
Barbara Neyses, Associate Dean for Administration and Financial Operations
Katie S. McClendon, Pharm.D., BCPS, Assistant Dean for Student Services-UMMC campus
Chelsea W. Bennett, Ph.D., Assistant Dean for Student Services-Oxford campus

Department of Pharmacy Practice – UMMC Campus
Seena L. Haines, Pharm.D., BCACP, Chair
Kim G. Adcock, Pharm.D., Director, Faculty and Academic Affairs
Laurie W. Fleming, Pharm.D., BCACP, Director, Experiential Affairs
Katie S. McClendon, Pharm.D., BCPS, Director, Student Affairs

Division of Pharmacy Professional Development
Stuart T. Haines, Pharm.D., BCPS, BCACP, Director of Pharmacy Professional Development
Meagan A. Brown, Pharm.D., BCACP, Coordinator, Community Pharmacy Development
Joel R. Pittman, Pharm.D., Coordinator, Continuing Education
Gary D. Theilman, Pharm.D., Coordinator, Instructional Technology

HISTORY
In spite of modest beginnings, the University of Mississippi School of Pharmacy has evolved into one of the most productive and highest ranked pharmacy schools in the country. It has produced both practicing pharmacists and renowned researchers. Its rich history began with only a handful of students and faculty members and is now one of the crown jewels of the university. It consistently ranks among top programs in the country for both research and instruction. But perhaps its most impressive achievement is the long line of scholars and pharmacists who have advanced patient care, the profession of pharmacy, and their disciplines. 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 to access a larger patient population and to directly interact with other health professional schools.

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 team-based models of practice, with an emphasis on underserved populations and those with health disparities.
• Quality, progressive education and training for professional and graduate students, post-graduates, and practitioners through continuing professional development.
• An environment which promotes the generation and dissemination of new biomedical knowledge and technologies through collaborative and interdisciplinary research.
• Opportunities for discovery, translation and dissemination of knowledge of natural products and novel pharmaceuticals.
• Leadership in the development and implementation of advanced pharmacy practice models.
• Collaboration with internal and external stakeholders.
• Opportunities to conduct practice-based translational research.
• Community engagement through service.
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.

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.

INSTRUCTIONAL FACILITY ON UMMC CAMPUS
The School of Pharmacy building on the UMMC campus provides a state-of-the-art educational facility in the heart of an academic corridor. The facility houses the School of Pharmacy Department of Pharmacy Practice, Division of Pharmacy Professional Development, the Center for Clinical and Translational Science administrative offices, faculty, resident, and staff offices, and education and research space. The building includes 17 small group classrooms, an auditorium that seats approximately 175, clinical and basic 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 American Pharmacists Association Academy of Student Pharmacists (APhA-ASP), National Community Pharmacists Association (NCPA), Academy of Managed Care Pharmacy (AMCP), Student Societies of Health-System Pharmacists of American Society of Health-Systems Pharmacists (ASHP-SSHP), Christian Pharmacists Fellowship International (CPFI), Student National Pharmaceutical Association (SNPhA), Student College of Clinical Pharmacy (SCCP), Pediatric Pharmacy Association (PPAG), and American College of Veterinary Pharmacists (ACVP). 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. 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 in the School of Pharmacy Student Handbook found online at http://pharmacy.olemiss.edu/studentservices/.

TECHNICAL STANDARDS FOR ADMISSION
Information on technical standards for admission are available in the School of Pharmacy Student Handbook located online at http://pharmacy.olemiss.edu/studentservices.
SCHOOL TUITION AND FEES
Information on tuition and fees is provided on the University’s financial aid website at https://finaid.olemiss.edu/cost-of-attendance/.

FINANCIAL AID
Information on general financial aid programs is provided in the financial aid section of the University of Mississippi 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/studentservices/.

STUDENT COMPLAINTS
Current students at the University of Mississippi School of Pharmacy may seek resolution to academic or misconduct complaints through the school’s published administrative channels, entering at the appropriate level and proceeding in the documented order. Students may seek resolution of non-academic or non-misconduct complaints through the appropriate office designated to address the particular 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 University of Mississippi Office of Human Resources, Title IX coordinator or the Equal Employment Opportunity Office. In the event that a student believes a non-academic or non-misconduct complaint has not been resolved satisfactorily, they may file a written grievance with the Assistant Dean of Student Services on the Oxford campus.

Current students at the University of Mississippi School of Pharmacy may file a written grievance with the Assistant Dean of Student Services through the Office of Student Services - Oxford. Students may also submit concerns, leave complaints, make comments, offer suggestions, or request assistance through the Office of Student Services - Oxford. The University of Mississippi School of Pharmacy and its dedicated professionals are engaged in fostering an environment that promotes academic success and student development. Students are encouraged to provide candid feedback.

Students may choose to contact the Office of Student Services - Oxford using the form referenced in the SOP Student Handbook or in writing to University of Mississippi School of Pharmacy, Office of Student Services, 203 Faser Hall, P.O. Box 1848, University, MS 38677-1848.

Form submissions will be sent to an email account that is checked each business day. If a return email address is provided, the Office of Student Services - Oxford will respond within two business days. If the name and email address fields are blank, the submission will be anonymous, and the Office of Student Services - Oxford will not respond. However, all submissions will be reviewed and addressed.

In the context of their educational experience, students may have complaints about a variety of issues. The School of Pharmacy has an obligation to respond to complaints generated by students. This policy outlines how student complaints should be handled both by students and the School. The underlying philosophy of this policy is that all complaints concerning The University of Mississippi School of Pharmacy courses, faculty, or policies should be handled and resolved in a professional manner. For more information about the University of Mississippi Medical Center’s Student Complaints policy, follow this link to the Student Complaint Policy.

SCHOOL TECHNOLOGY/TOOL/SUPPLY REQUIREMENTS
Students are required to purchase a laptop prior to enrollment in the fall of P1 year. The minimum hardware and software specifications are prescribed on an annual basis by the Information Resources and Computing Committee.

SCHOOL ACADEMIC REQUIREMENTS (POLICIES)
The University of Mississippi School of Pharmacy academic requirements are provided in detail in the School of Pharmacy Student Handbook which can be found online at http://pharmacy.olemiss.edu/studentservices/.

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/studentservices/.

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 administered on the UMMC campus and at a variety of practice sites located throughout Mississippi and the mid-South region.

COURSES

All courses of the School of Pharmacy are approved by the faculty and through appropriate university channels. They are included in the University of Mississippi Academic Catalog, which is updated annually.