

University of Southern Mississippi  
College of Science and Technology  
**Pre-Medical Curriculum** Rev. 8/18/2009

The “pre-medical curriculum” is just *a list of courses that are required for admission to medical school*. **It is NOT an academic major, a minor, or an emphasis area.**

Schools of medicine have relatively similar minimal requirements for admission, typically:

- **completion of a series of specified courses with laboratories** in Biology, Chemistry, Physics, Mathematics (BCPM); English composition; advanced science courses
  - ***AP credit for the required courses is NOT accepted at UMMC***
  - a maximum of 65 hours of required courses taken at an accredited community college may be used for admission to UMMC
- completion of a **baccalaureate degree**; although consideration is given to exceptional students with a minimum of 90 credit hours, an undergraduate degree is preferred
- a competitive GPA in the required BCPM courses
- competitive scores from the nationally administered Medical College Admission Test (**MCAT**)

Medical schools ***do not require a particular major***. Although most pre-medical students choose a major in one of the sciences, other majors are acceptable. Students should select the major in which they feel the most comfortable.

The following list of **Required Courses** meets only ***the minimal requirements for admission*** to the School of Medicine of the University of Mississippi Medical Center in Jackson.

Link to SoM UMMC Admissions: <http://som.umc.edu/admissions.html#Admissions>

*Students must consult the specific admission requirements and application deadlines for the school(s) to which they plan to apply, including UMMC.*

- two semesters each of core science courses with laboratories (biological science, general chemistry, organic chemistry, physics)
  - non-majors courses in these areas are not accepted
- two semesters each of mathematics, English composition, advanced science

### ***Progress toward a Baccalaureate Degree***

Course work toward a baccalaureate degree at Southern Miss must be planned so the student meets all the requirements for the preprofessional curriculum, a major, a minor if appropriate, the University General Education Curriculum, and the College core. At Southern Miss, a minimum of 124 hours is needed for most baccalaureate degrees, with 45 of these hours from courses at the 300-level or above.

The ***suggested course sequence*** below is merely a guideline. Students must consult the USM Undergraduate Bulletin, the USM Class Schedule Guide for each semester, and their academic advisor. During the last semester of the Sophomore year, students should develop a more detailed plan for the Junior and Senior years because many upper level courses are offered in specific semesters (Fall or Spring only) and/or on a rotating two-year cycle.

## YEAR 1

### Fall

BSC 110&L <b>OR</b> BSC 111&L	4 h
CHE 106&L <sup>a</sup>	4 h
MAT 101 <sup>b</sup>	3 h
ENG 101	3 h
One other course <sup>c</sup>	3 h

### Spring

BSC 111&L <b>OR</b> BSC 110&L	4 h
CHE 107&L	4 h
MAT 103 <sup>b</sup>	3 h
ENG 102	3 h
One other course <sup>c</sup>	3 h

<sup>a</sup>, CHE 100 is required when the chemistry background is not adequate. Students may enter CHE 100 directly, if they choose. Students enrolled in CHE 106/L must take a standardized test during the first week or two of class in order to remain in CHE 106/L; if they do not meet the minimum score, these students move to a CHE 100 class.

<sup>b</sup>, Calculus is required for most majors in the College of Science and Technology. Placement in MAT courses depends on the student's ACT subscore.

Students may enroll in Calculus directly if the ACT mathematics *subtest score is greater than or equal to 26*; otherwise, they must take prerequisite courses, typically College Algebra (MAT 101) and/or Trigonometry (MAT 103).

Entering freshmen with an ACT mathematics *subtest score less than or equal to 19* must take Intermediate Algebra (MAT 099) during the first semester.

Students may take Trigonometry if the ACT mathematics *subtest score is equal to or greater than 24* or if they have a grade of C or better in College Algebra.

Students entering Calculus (MAT 167 or MAT 314) directly can use this course to satisfy the UMMC math requirement but must take an additional recommended elective course (BCPM).

<sup>c</sup>, "Other" courses include those in the General Education Curriculum and in the major and/or minor as well as "recommended electives".

### ***Strategy for Success***

- Students should focus on doing well in their studies. Aim for a minimum 3.6 GPA on BCPM courses.
- Students should become involved with extracurricular activities, including meaningful **community service learning, volunteer activities, and leadership positions** that will demonstrate effective interactions with diverse people and effective time management skills. Students should maintain a record of the dates and total hours spent performing such activities. This will be needed when it comes time to apply to medical school.
- Students should start getting some **hands-on exposure** to medicine (sights, sounds, smells, feel). Successful medical school applicants typically have an average of six different medical-related experiences as an undergraduate. However, duration of medical exposures in combination with other responsibilities is considered.

Students are strongly encouraged to complete the pre-requisites for the **Hatten Pre-medical Externship** during the first year. The Preprofessional Externship course is offered each Fall semester. Students may participate in the externship twice.

Since students typically apply to medical school at the end of the Junior year, participation in the externship as Sophomores and Juniors is recommended.

Externship prerequisites are ENG 101, 102; BSC 110/L, 111/L; CHE 106/L, 107/L; (MAT 101, 103) **OR** (MAT 167 or MAT 314 **and** one upper level BSC or CHE course).

## YEAR 2

### Fall

CHE 255&L 4 h  
PHY 111&L 4 h  
[ or PHY 201&L 5 h ]  
2-3 other classes<sup>d</sup> 6-9 h

### Spring

CHE 256&L 5 h  
PHY 112&L 4 h  
[ or PHY 202&L 5 h ]  
2-3 other classes 6-9 h

<sup>d</sup>, Students are strongly encouraged to take the **Preprofessional Externship** course in the Fall semester of the second year . Requirements are ENG 101, 102; BSC 110/L, 111/L; CHE 106/L, 107/L; (MAT 101, 103) **OR** (MAT 167 or MAT 314 **and** one upper level BSC or CHE course).

### *Strategy for Success*

- Students continue to focus on doing well in their studies.
- Students remain involved with meaningful **community service learning, volunteer activities and leadership positions.**
- Students continue to participate in **hands-on exposure** to medicine. Students are strongly encouraged to participate in the **Hatten Premedical Externship**, which is offered each Fall. Students may participate in the externship twice. Since students typically apply to medical school at the end of the Junior year, participation in the externship as Sophomores and Juniors is recommended.
- Students typically join **AED**, the national Health Preprofessional Honor Society, in the Spring semester. Applications are available in TEC 103 and online:
  - *National AED membership form:* <http://www.nationalaed.org/pdfs/AED-application.pdf>
  - *Southern Miss Chapter AED membership form:* [http://www.usm.edu/cost/files/AED\\_application.doc](http://www.usm.edu/cost/files/AED_application.doc)

## YEAR 3<sup>e</sup>

### Fall

Advanced science elective<sup>f</sup> 4 h  
Other courses 11-14 h

### Spring

Advanced science elective<sup>f</sup> 4 h  
Other courses 11-14 h

<sup>e</sup>, Students are recommended to take BSC 399 (MCAT Preparation) during the Junior year or to prepare on their own before attempting the MCAT for the first time. BSC 399 is offered in the Spring semester; pre-requisites include ENG 101, 102; BSC 110/L, 111/L; CHE 106/L, 107/L, 255/L, 256/L; PHY 111/L, 112/L; MAT 101, 103 **or** MAT 167 and one upper level BSC or CHE course.

<sup>f</sup>, Recommended advanced science electives include Cellular Biology (BSC 360), Comparative Anatomy (BSC 361), Genetics (BSC 370/L), Microbiology (BSC 380/L), Physiology (BSC 451, BSC 450), Immunology (BSC 486), CHE 420 (Survey of Biochemistry), CHE 421 (Biochemistry I), CHE 422 (Biochemistry II) and others including embryology; histology; quantitative analysis; Physical Chemistry (CHE 461/L, CHE 462/L); Calculus II, III, IV (MAT 168, MAT 169); differential equations; advanced physics. A year of Biochemistry is **strongly recommended.**

**The application process begins the Junior year.** Students should learn about the MCAT, the online **AMCAS** (American Medical College Application Service) application process, and getting letters of evaluation from faculty.

Link to AMCAS: <http://www.aamc.org/students/amcas/>

UMMC applicants must show credit for at least three years of college work with a minimum of 90 semester hours of acceptable courses. *Strong preference is given to students who will have completed all requirements for a baccalaureate degree prior to entering medical school.*

- *Fall and Spring:* begin MCAT preparation (review content, take practice tests online)
- *Spring:* take first MCAT; score of 28 is average for admission. UMMC uses a sliding scale of BCPM GPA and MCAT scores.
- *Spring:* request official transcripts and letters of evaluation from faculty; work on personal statement
- *June 1:* earliest receipt date for complete AMCAS application (recommended)
- *Summer:* repeat MCAT, if needed

### ***Strategy for Success***

- Students continue to focus on doing well in their studies.
- Students remain involved with meaningful **community service learning, volunteer activities and leadership positions.**
- Students continue to participate in **hands-on experiences** related to any aspect of medicine.
- Students are encouraged to participate in the **Hatten Pre-medical Externship**, which is offered in the Fall semester. Students may participate in the externship twice.

### **YEAR 4**

#### **Fall**

Classes to fulfill major, minor      15-18 h

#### **Spring**

Classes to fulfill major, minor      15-18 h

The application process continues.

- *September:* UMMC interviews begin. Students may sign up for mock interviews, to be conducted at the USM Speaking Center or through Career Services.

### **For more information about a career in Medicine, you may contact:**

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