Predental Curriculum

The “predental curriculum” is just a list of courses that are required for admission to dental school. It is NOT an academic major, a minor, nor an emphasis area.

WHAT SHOULD I MAJOR IN?

Dental schools do not require a particular major. Although most predental students choose an academic major in one of the sciences such as Biological Sciences or the Biochemistry emphasis of Chemistry, other majors are acceptable including those in the humanities, social sciences, or business. Students should select the major in which they feel the most comfortable and in which they would like to work if they are not accepted into dental school.

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, and the University General Education Curriculum. 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.

Visit the American Dental Association (ADA) web page for more information about dental schools: http://www.ada.org/en/education-careers/dental-schools-and-programs/

What if you already have a Baccalaureate Degree?
Some students already have a B.A. or B.S. or even a higher degree and decide to pursue becoming a dentist. Each student’s circumstance is different and it is wise to consult with our preprofessional office if you fit in this category. In general, students usually are lacking some of the science courses required by most dental schools or have a different problem in that their earlier college courses were over 10 years old which most dental schools don’t accept as meeting their required prerequisite courses. It is common for these students to take the prerequisite science or non-science courses for dental school here at USM as post-baccalaureate students, work on the other non-course requirements of dental schools while taking courses, study for the DAT, take the DAT exam, and then apply to dental school(s). Some post-baccalaureate students take the science or other prerequisite courses as a non-degree student while other students choose a second major to pursue at USM. In either case you must go through the University Admissions Office (www.usm.edu/admissions) to be admitted if you are a new student to USM or to be re-admitted if you are a former USM student before you can enroll in any courses.

Requirements for Applicants
Dental schools have relatively similar minimum requirements for admission, typically:

• completion of a series of specified courses in Biology, Chemistry, Physics, Mathematics (BCPM); and English composition
  – laboratory science courses intended for non-majors are not accepted by dental schools
• completion of a **baccalaureate degree**: consideration is given to exceptional students with 90 credit hours but a degree is preferred
• a competitive overall GPA
• a competitive GPA in science courses
• competitive non-cognitive attributes (honesty/integrity/ethics/values/leadership/motivation for dentistry, etc.)
• competitive scores from the nationally administered **Dental Admission Test (DAT)**, both overall and overall science scores
• consideration is given to students who take at least 15 semester hours a semester at their primary institution
• observations of dentists in practice (the School of Dentistry in Mississippi requires a minimum of 100 observation hours and observations of at least four different dentists)
• active participation in community service (the School of Dentistry in Mississippi recommends volunteering with at least four different organizations)

There is only one Dental School in the state of Mississippi at the University of Mississippi Medical Center (UMMC). Link to the School of Dentistry at UMMC: [http://www.umc.edu/sod/](http://www.umc.edu/sod/)

The following list of **Required Courses** meets only the **minimum requirements for admission** to the **School of Dentistry** of the **University of Mississippi Medical Center** (UMMC) in Jackson.

Link to admissions at the School of Dentistry UMMC: [http://www.umc.edu/Education/Schools/Dentistry/Admissions(SOD)/Admissions_Home.aspx](http://www.umc.edu/Education/Schools/Dentistry/Admissions(SOD)/Admissions_Home.aspx)

*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 (inorganic chemistry [general chemistry], organic chemistry, physics, biology)
• two semesters of English composition,
• two semesters of advanced biology and/or chemistry, must be completed at a senior college
  – one course must be microbiology, or comparative anatomy, or biochemistry
• two semesters of mathematics
  – students who qualify to enter calculus directly can satisfy the math requirement with a 3- or 4-hr calculus course; the other required math hours can be met by an approved elective math course
• one semester of general, business, or scientific statistics
• Unacceptable courses at UMMC School of Dentistry for meeting requirements are correspondence or online courses, courses in physical training, military science or dogmatic religion or courses in math or science for non-science majors.

Strong preference is given to legal residents of Mississippi. In recent years only Mississippi residents have been admitted to UMMC School of Dentistry. The UMMC School of Dentistry enrolls about 35 incoming students each year in their DMD program. Applicants must be U.S. citizens or have permanent immigrant status.

Other Schools of Dentistry in states adjoining Mississippi are:

- Louisiana State University School of Dentistry, New Orleans, LA
  [http://www.lsusd.lsuhsn.edu](http://www.lsusd.lsuhsn.edu)
- University of Alabama School of Dentistry at UAB, Birmingham, AL
  [http://www.dental.uab.edu](http://www.dental.uab.edu)
- University of Tennessee College of Dentistry, Memphis, TN
  [http://www.uthsc.edu/dentistry/](http://www.uthsc.edu/dentistry/)
- Meharry Medical College School of Dentistry, Nashville, TN
  [http://www.mm.edu](http://www.mm.edu)
Other DDS/DMD programs can be found listed by state at the Commission on Dental Accreditation site [http://www.ada.org/en/coda/find-a-program/search-dental-programs/dds-dmd-programs](http://www.ada.org/en/coda/find-a-program/search-dental-programs/dds-dmd-programs).

**SUGGESTED COURSE SEQUENCE & STRATEGIES FOR SUCCESS**

The *suggested course sequence* below is merely a guideline to complete the courses required for the UMMC Dentistry program in a timely manner. Courses to fulfill the major must be worked into the student’s schedule.

Students must consult the Southern Miss Undergraduate Bulletin (http://www.usm.edu/registrar/bulletins), the Southern Miss Class Schedule Guide (http://www.usm.edu/registrar/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 in all majors are offered in specific semesters (Fall or Spring only) and/or on a rotating two-year cycle.

### YEAR 1

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSC 110&amp;L OR BSC 111&amp;L</td>
<td>BSC 111&amp;L OR BSC 110&amp;L</td>
</tr>
<tr>
<td>CHE 106&amp;L</td>
<td>CHE 107&amp;L</td>
</tr>
<tr>
<td>MAT 101 b</td>
<td>MAT 103 b</td>
</tr>
<tr>
<td>ENG 101 c</td>
<td>ENG 102</td>
</tr>
<tr>
<td>One other course d</td>
<td>One other course d</td>
</tr>
</tbody>
</table>

**Notes:**
- The order in which students take the introductory Biological Sciences (BSC) courses does not matter; BSC 110/L covers molecular and cellular topics whereas BSC 111/L covers ecology and organisms.
- Placement in mathematics (MAT) courses depends on the student’s ACT subscore. Consult the prerequisites for the math course you plan to take. Calculus is required for some majors at USM but is not required for most dental schools. The DAT quantitative section is based more on algebra, data analysis, probability and statistics.
- Placement in English Composition courses depends on the student’s ACT English subscore.
  - **ACT English subtest score 16 or below:** ENG 99E (Expanded Composition Studio) and ENG 100E (Composition I expanded)
  - **ACT English subtest score 17-19:** ENG 100E (Composition I expanded)
  - **ACT English subtest score 20 or above:** ENG 101 (Composition I)
- “Other” courses include those in the General Education Curriculum and in the major and/or minor as well as “recommended courses” and “approved electives”.

**Strategy for Success**

- Students should focus on doing well in their academic studies, particularly the required science and math courses. Students should study to retain the information since it is foundational for later undergraduate courses and dental school. In addition, general chemistry, organic chemistry, biology, and math content is tested on the Dental Admissions Test (DAT) required by dental schools for admission.

- 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. UMMC recommends volunteer work with at least four different organizations.

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 dental school.
• Students should start getting some **hands-on exposure** to dentistry. UMMC requires a minimum of 100 hours of shadowing with at least four different dentists.

Students are strongly encouraged to complete the prerequisites for the **Hatten Externship (BSC 392)** during the first year. The Externship provides predental students the opportunity to shadow a dentist and receive course credit for both shadowing and writing/speaking about it. The Externship course is offered in the Fall semester, so students must fulfill the pre-requisites by the end of the preceding Summer semester. Students may participate in the Externship twice. Since students typically apply to dental 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 one Calculus course]. Minimum GPA of 3.2 for USM GPA, degree GPA, and BCPM GPA.

• Students may join **AED** (Alpha Epsilon Delta), the national Health Preprofessional Honor Society, as associate members at any time even if they do not fulfill the requirements for full membership (must be enrolled at Southern Miss for a minimum of three semesters and meet specific course and GPA requirements). Full members are inducted during the Spring semester. The University of Mississippi School of Dentistry recommends participation and leadership roles in student organizations at undergraduate institutions like Southern Miss.

Information and links to AED Full and Associate Member applications are available on the Southern Miss Preprofessional website

### YEAR 2

**Fall** | **Spring**
---|---
CHE 255&L | CHE 256&L
PHY 111&L | PHY 112&L
[or PHY 201&L] | [or PHY 202&L]
2-3 other classes $^d,e$ | Statistics $^f$
7-9 h | 3 h
4 h | 6 h

---

$^d$, “Other” courses include those in the General Education Curriculum and in the major and/or minor as well as “recommended courses” and “approved electives”.

$^e$, Students are strongly encouraged to take the **Hatten Externship** course (BSC 392) in the Fall semester of the second year; the course can be repeated in the Fall of the third year. Prerequisites are ENG 101, 102; BSC 110/L, 111/L; CHE 106/L, 107/L; [MAT 101, 103 OR one Calculus course]. Minimum GPA of 3.2 for USM GPA, degree GPA, and BCPM GPA.

$^f$, PSY 360 (Statistics for the Behavioral Sciences) is recommended, depending on student’s major; another statistics course may be recommended or required by a specific major. Many dental schools accept general, business, or scientific statistics.

### 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 dentistry.

• Students are strongly encouraged to participate in the **Hatten Externship (BSC 392)**, which is offered each Fall. Students may participate in the Externship twice. Since students typically apply to dental school at the end of the Junior year, participation in the Externship as Sophomores and Juniors is recommended.
• Students are typically inducted into AED, the national Health Preprofessional Honor Society, in the Spring semester of the Sophomore year, but may be inducted in Junior or Senior year (must be enrolled at Southern Miss for a minimum of three semesters and meet specific course and GPA requirements).

YEAR 3

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced science elective g</td>
<td>3-4 h</td>
</tr>
<tr>
<td>Other courses h</td>
<td>12-15 h</td>
</tr>
<tr>
<td>Advanced science elective g</td>
<td>3-4 h</td>
</tr>
<tr>
<td>Other courses h,i</td>
<td>12-15 h</td>
</tr>
</tbody>
</table>

g. For UMMC dental school you must take either Microbiology (BSC 380/L), or Comparative Anatomy (BSC 361) or Survey of Biochemistry (CHE 420) or Biochemistry I (CHE 421) for one of the advanced science electives. Depending upon which advanced science elective from above you take, the other advanced science electives include Cellular Biology (BSC 360), Comparative Anatomy (BSC 361/L), Genetics (BSC 370), Microbiology (BSC 380/L), Physiology [BSC 451 (Human Physiology), BSC 450 (Comparative Animal Physiology)], Immunology (BSC 486), Survey of Biochemistry (CHE 420), Biochemistry I (CHE 421), Biochemistry II (CHE 422), Biochemistry III (CHE 424), Analytical Chemistry (CHE 311/L), Analytical Biochemistry (CHE 423), Physical Chemistry (CHE 461/L, CHE 462/L), among others.

h. Although not required by the dental school, the following courses are highly recommended by the dental school and may depend upon major: foreign language, sociology (SOC 101), psychology (PSY 110), speech (CMS 111), humanities core courses (ENG 203, HIS 101, HIS 102), philosophy (PHI 151 or 171), embryology (BSC 465/L or 466/L), histology (BSC 461/L), immunology (BSC 486/L), cell biology (BSC 360) and physiology (BSC 451 or 450).

Other recommended elective courses include:, computer science, economics, literature, and advanced English, fine arts, business, accounting, and selected advanced courses in mathematics, chemistry, physics, and biology.

i. Students may take BSC 399 (MCAT Preparation) during the Spring semester of the Junior year if they would like to review Biology, Chemistry, and Physics in a formal class. Otherwise students need to prepare on their own before attempting the Dental Admissions Test (DAT) for the first time.

BSC 399 is offered in the Spring semester. Prerequisites 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& MAT 103 OR one Calculus course] and one upper level BSC or CHE course. Minimum GPA of 3.4 for USM GPA, degree GPA, and BCPM GPA.

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 dentistry.
• Students are strongly encouraged to participate in the Hatten Externship, which is offered in the Fall. Students may participate in the Externship twice. Since students typically apply to dental school at the end of the Junior year, participation in the Externship as Sophomores and Juniors is recommended.
• Begin dental school application process during Junior year
• Submit application to dental school in the early summer after the Junior year.

YEAR 4

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
</table>

July 2018 - The University of Southern Mississippi 5
The application process must begin early this year, if not done previously.

THE APPLICATION PROCESS
The application process usually begins during the junior year. At UMMC School of Dentistry the application period is usually from early June through mid-October with all materials submitted to AADSAS by mid-September. Schools may have different deadlines so please check with the schools to which you will be applying.

Students should learn about the Dental Admission Test (DAT), the online Associated American Dental Schools Application Service (AADSAS) application process, and getting letters of evaluation.

Link to DAT: http://www.ada.org/dat.aspx
Link to AADSAS: http://www.adea.org/dental_education_pathways/aadsas/Applicants/Pages/default.aspx

Also please check that website for the availability of the fee assistance program (FAP) to lessen the cost of the DAT. Application for fee assistance usually begins June 1 of each application year. Funds are usually depleted by middle of June.

Link to the AADSAS application portal: https://portal.aadsasweb.org

Students are strongly encouraged to take an online practice DAT before taking the DAT they will use on their application. There are a number of websites, including the DAT site, that have practice questions or practice tests; use Google to search for “practice DAT questions”. The DAT contains the following sections:

1. Survey of Natural Sciences (biology, general chemistry, organic chemistry content)
2. Quantitative Reasoning (mathematics problems involving “algebra equations and expressions, inequalities, exponential notation, absolute value, ratios and proportions, and graphical analysis; Data analysis, Interpretation, and Sufficiency; Quantitative Comparison; and Probability and Statistics.” from DAT guide)
3. Perceptual Ability (six subtests – apertures, view recognition, angle discrimination, paper folding, cube counting, and 3D form development)
4. Reading Comprehension (three passages of scientific information – testing ability to read, comprehend, and analyze basic scientific information)

UMMC applicants must show credit for at least 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 the School of Dentistry. Also consideration is given to students who take at least 15 semester hours per semester.

Junior Undergraduate Year
- Fall and Spring: begin DAT preparation (review content, take practice tests online)
- Spring: take first DAT
- Spring: request official transcripts and letters of evaluation from faculty; work on personal statement
- June 1 after Junior Year: earliest receipt date for complete AADSAS application (recommended that the application be submitted early)
- Summer after Junior Year: repeat DAT, if needed, after studying hard and taking additional practice tests

THE INTERVIEW
Students are advised to practice their interview skills BEFORE attending their first interview. The Dental School at UMMC uses the Multiple Mini-Interview (MMI) process for their interviews. See information about the UMMC interview system used at the medical school that is similar to the dental school interviews at: [http://www.umc.edu/education/schools/medicine/som_admissions/interviews.aspx](http://www.umc.edu/education/schools/medicine/som_admissions/interviews.aspx)

**Preparation at USM for Interviews**

- You may use the online Perfect Interview™ resource: [http://www.perfectinterview.com/usm/](http://www.perfectinterview.com/usm/)
- Or, sign up for mock interviews through Career Services by calling 601-266-4153. [http://www.usm.edu/career-services/about-us](http://www.usm.edu/career-services/about-us) or, sign up with the Preprofessional Advisor, Dr. Jeffrey Evans, to do mock interviews with him.
- **Dress professionally** and act professionally at your interview.

**FOR MORE INFORMATION ABOUT A CAREER IN HEALTHCARE, CONTACT THE PREPROFESSIONAL OFFICE**

Preprofessional Office  
Dr. Jeffrey Evans, Preprofessional Advisor  
[jeffrey.evans@usm.edu](mailto:jeffrey.evans@usm.edu)  
Phone: 601-266-4315  
Office Location: Bobby Chain Technology Center (TEC 100)

College of Arts and Sciences  
118 College Dr. #5004  
Hattiesburg, MS 39406-0001