

University of Southern Mississippi
College of Science and Technology
Pre-Veterinary Medicine Curriculum

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

Admission to a veterinary program is very competitive. The candidate must provide convincing evidence that he or she is not only a scholar with the appropriate academic credentials, but also is a person with the experience and common sense needed for dealing with animals.

Students must gain experience working in a veterinary clinic before applying to a vet school.

The following list of **Courses** prepares students seeking admission to the *four-year professional program* at the **College of Veterinary Medicine at Mississippi State University**.

Link to MSU CoVM: <http://www.cvm.msstate.edu/>

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

- 8 hours each of core science courses with laboratories (biological science, inorganic chemistry, organic chemistry, physics)
- 6 hours each of mathematics and of English composition
- microbiology with laboratory (4 hours) and biochemistry (3 hours)
- speech or technical writing (3 hours)
- advanced science electives (12 hours)
- humanities (6 hours), social/behavioral sciences (6 hours), fine arts (3 hours)

Students may apply for admission to the MSU College of Veterinary Medicine in their third year of preprofessional work. However, students are strongly advised to work toward completing the baccalaureate degree in a science field.

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 **OR** BSC 111&L 4 h
CHE 106&L^a 4 h
MAT 101^b 3 h
ENG 101 3 h
Required elective^c 3 h

Spring

BSC 111&L **OR** BSC 110&L 4 h
CHE 107&L 4 h
MAT 103^b 3 h
ENG 102 3 h
Required elective^c 3 h

^a, 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.

^b, 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 ≥ 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 of ≤ 16* must take Intermediate Algebra (MAT 099) during the first semester. Students with an ACT mathematics *subtest score of 17-19* are **STRONGLY ENCOURAGED** to take Intermediate Algebra before taking College Algebra. Students may take Trigonometry if the ACT mathematics *subtest score is ≥ 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 College of Veterinary Medicine math requirement but must take an additional approved math elective course (need 6 hours total).

^c, Students must take 15 hours of any combination of Humanities, Social/Behavioral Sciences, and Fine Arts courses. To fulfill the requirements for a baccalaureate degree from Southern Miss (or from MSU), students should select:

- one Fine Arts course (ART 130, DAN 130, MUS 365, THE 100)
- two Humanities courses; take ENG 203 and select one course from (HIS 101, HIS 102, PHI 151, REL 131); the baccalaureate from Southern Miss requires a third Humanities course
- two Social and Behavioral Sciences courses; select one course from (ANT 101, SOC 101) and one course from (ECO 101, PS 101, PSY 110).

Strategy for Success

- Students should focus on doing well in their academic studies. Laboratory science courses intended for non-majors are not accepted by veterinary schools.
- Students should start getting some **hands-on exposure** to veterinary medicine.

YEAR 2

Fall		Spring	
BSC 380/L	4 h	Advanced Science elective ^d	4 h
CHE 255&L	4 h	CHE 256&L	5 h
PHY 111&L	4 h	PHY 112&L	4 h
Required elective ^e	3 h	Speech or Technical Writing ^e	3 h

^d, Advanced science electives include junior, senior, and graduate level courses in Biochemistry (CHE 420; CHE 421/L, CHE 422/L); nutrition (NFS 362); comparative zoology; cellular physiology; embryology; histology; Microbiology (BSC 380/L); quantitative analysis; Calculus (MAT 167, MAT 168, MAT 169); statistics (PSY 360, MAT 320); Immunology (BSC 486/L); animal physiology (BSC 451, BSC 450); Genetics (BSC 370); parasitology; Molecular Biology (BSC 476, BSC 478L); Physical Chemistry (CHE 461/L, CHE 462/L) differential equations; physics.

^e, SCM 111 or ENG 333

Strategy for Success

- Students continue to focus on doing well in their studies.
- Students typically join **AED**, the national Health Preprofessional Honor Society, in the Spring semester. Applications are available in TEC 103 and online.

YEAR 3

Fall

CHE 420	3 h
Advanced Science elective ^d	4 h
Required elective ^c	3 h
Classes to fulfill major, etc.	5 h

Spring

Advanced Science elective ^d	4 h
Required elective ^c	3 h
Classes to fulfill major, etc.	8 h

The application process *may begin this year*. All applicants must apply through the **Veterinary Medicine Colleges Application Service** (www.aavmc.org), which opens in June. Three evaluation letters are required; at least one must be from a veterinarian.

- The GRE is required for admission consideration. Scores must be submitted by October 1 of the application year and may be no more than 3 years old.
- Applicants must have completed a total of 79 semester hours of required courses. To do so by this time, students may have to take some courses in the two previous summer semesters.
- Applicants must have a minimum GPA of 2.8 on a 4.0, both in their cumulative GPA and in the required sciences and mathematics courses; at no time may these GPA calculations fall below the minimum level.
- No grade lower than “C” is acceptable in any required courses.

YEAR 4

Fall

Classes to fulfill major, etc.	15-18 h
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Spring

Classes to fulfill major, etc.	15-18 h
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The application process *must begin this year*. See Year 3 comments above.