

OTTERBEIN UNIVERSITY - DEPARTMENT OF EQUINE SCIENCE

EQUINE PRE-VETERINARY MEDICINE/PRE-GRADUATE STUDIES MAJOR (EPRE)

Entry into colleges of veterinary medicine is extremely competitive. Students intending to apply to a college of veterinary medicine need to maintain a minimum GPA=3.5 in order to even be considered at most colleges of veterinary medicine. Graduate schools may be more flexible but a high GPA is typically required.

Requirements: The required courses for this major are EQSC 1100, 1110, 1200, 1250, 1400 (pick two from this series) 3000, 3020, 3100, 3120, 3410, 4000, and 4100. You must also pick one upper-level equine course from EQSC 3200, 3300, 3400, or 3500. Required support courses are BIO 1010, 1020, CHEM 1400, 1410, 1500, 1510, and MATH 1700.

Additional courses in organic chemistry, biochemistry, physics, microbiology, genetics, and/or statistics may also be required for admission to veterinary school. Due to requirement variation from one institution to the next, you should acquire specific information from all the institutions where you intend to apply.

Minimum Grades: A minimum grade of C must be achieved in all the required courses of this major, including all required support courses. If you earn a grade that is less than C in any of these courses, you will need to repeat that course. Should that course be a prerequisite for subsequent coursework, you must earn a satisfactory grade (minimum = C) in the prerequisite course before continuing with subsequent coursework.

Mathematics Placement: Your math placement is determined by your ACT/SAT score. If you would like to try to place at a higher math level than that indicated by your ACT/SAT score, we recommend taking Otterbein's on-line math placement test offered in the spring of your senior high school year. If you do not place into MATH 1700, we strongly recommend taking the ALEKS tutorial through Otterbein over the summer. The ALEKS is a completely self-paced assessment and learning system for individualized online instruction.

Skill Development Options Courses: A minimum of 8 credits are required to fulfill this block. Options can be found in the course catalog and include basic laboratory courses, some oral and written communication courses, and modern languages. Pre-veterinary students typically meet this requirement with their introductory biology and chemistry courses.

Writing Intensive Courses: At least three WI courses are required to graduate. This requirement is fulfilled with your INST 1500, EQSC 4000, and EQSC 4100 courses.

Lifestyle, Fitness, and Wellness: One credit of lifestyle, fitness, and wellness is required.

Physics: Otterbein offers both calculus-based (1500 and 1600) and algebra-based (1100 and 1200) physics. You should verify the type of physics required at any veterinary college to which you are applying.

Experiential Courses: An EQSC 1400 series course is offered almost every semester and offers practical experience on a specific topic. Topics may vary by semester.

The “May” Term: The May term is an optional 3-week long term during which you have a total immersion experience into just one course. Taking advantage of this opportunity may lighten your load during the regular semester and/or provide opportunities to take more electives. Courses are often offered at reduced tuition. There are also travel course options.

The Senior Year Experience: SYE courses are designed to help students bring together the learning done in majors, integrative studies courses and elective courses, allow for reflection on your college education, and provide a bridge to your future career, graduate school, or professional school.

Summer Experiences: Every summer, it is important that pre-veterinary medicine students who are interested in veterinary school involve themselves in a veterinary practice. Try to acquire many different types of veterinary practices: food animal, small animal, equine, exotics. Your references for vet school will be coming from veterinarians in these practices. Students interested in graduate school or other career options should look for research opportunities, internships, or relevant work opportunities.

Undergraduate Research Opportunities: Please contact a faculty member if you think you might be interested in pursuing an undergraduate research project.

TYPICAL SCHEDULE

PLEASE NOTE THAT PREREQUISITE COURSES VARY AMONG VETERINARY MEDICINE/GRADUATE SCHOOLS. CHECK WITH THOSE SCHOOLS TO WHICH YOU INTEND TO APPLY TO ASSURE THAT YOU TAKE THE CORRECT COURSES. THOSE LISTED HERE FOLLOW THE OHIO STATE UNIVERSITY COLLEGE OF VETERINARY MEDICINE PRE-REQUISITES.

IF YOU INTEND TO APPLY TO A COLLEGE OF VETERINARY MEDICINE/GRADUATE SCHOOL, REQUEST ALL INFORMATION FROM YOUR INTENDED COLLEGE(S). PLEASE MEET WITH YOUR ADVISOR AT THE BEGINNING OF YOUR COURSE OF STUDY TO MAKE ANY NECESSARY ADJUSTMENTS TO YOUR SCHEDULE. IF YOU ARE A DOUBLE MAJOR, WORK WITH YOUR ADVISOR AND A FACULTY MEMBER FROM THE OTHER DEPARTMENT TO ENSURE YOU ARE TAKING THE APPROPRIATE COURSES.

Freshman

<i>First Semester- Fall</i>	<i>Second Semester- Spring</i>
EQSC 1100 Horsemastership (3 credit hours) EQSC 1110 Horsemastership Lab (1 ch) BIO 1010 Intro Molecular and Cell Bio (4 ch) BIO 1010 Intro Molecular and Cell Bio Lab (0 ch) MATH 1700 Calculus (3 ch)* FYS (3 credit hours)*	EQSC 1200 Equine A & P + Lab (4 ch) EQSC 1250 Equine Health Monitoring (2 ch) BIO 1020 Intro Organisms and Ecology (4 ch) BIO 1020 Intro Organisms and Ecology Lab (0 ch) INST 1500 Identity Projects (WI) (3 credit hours)* Lifestyle Fitness Wellness (1 ch)* EQSC 1400 or elective (1-3 ch)*
<i>Total Hours: 14</i>	<i>Total Hours: 15-16</i>

*Can be taken either semester of freshman year.

Sophomore

<i>Third Semester- Fall</i>	<i>Fourth Semester- Spring</i>
EQSC 3000 Systems I Lecture + Lab (4 ch) EQSC 3020 Systems I Seminar (2 ch) BIO 2010 Genetics Lecture + Lab (4 ch) CHEM 1400 General Chemistry I Lecture (3 ch) CHEM 1410 General Chemistry I Lab (1 ch) INST 2000 Self, Power and Difference (3 ch)	EQSC 3100 Systems II Lecture + Lab (4 ch) EQSC 3120 Systems II Seminar (2 ch) CHEM 1500 General Chemistry II Lecture (3 ch) CHEM 1510 General Chemistry II Lab (1 ch) INST 2200 Reflection and Responsibility (3 ch) EQSC 1400 or elective (1 – 3 ch)
<i>Total Hours: 17</i>	<i>Total Hours: 14-16</i>

Junior

<i>Fifth Semester- Fall</i>	<i>Sixth Semester- Spring</i>
CHEM 2400 Organic Chemistry I Lecture (3 ch) CHEM 2410 Organic Chemistry I Lab (1 ch) PHYS 1100 or 1500 Physics Lecture + Lab (4-5 ch) INST 2400 Natural Foundations (3 ch) EQSC 3200, 3300, 3400, or 3500 or elective (3 ch)	CHEM 2500 Organic Chemistry II Lecture (3 ch) CHEM 2510 Organic Chemistry II Lab (1 ch) PHYS 1200 or 1600 Physics Lecture + Lab (4-5 ch) INST 2600 Creativity and Culture (3 ch) EQSC 3200, 3300, 3400, or 3500 or elective (3 ch)
<i>Total Hours: 14-15</i>	<i>Total Hours: 14-15</i>

TAKE THE GRE IF YOUR INTENDED COLLEGES OF VETERINARY MEDICINE REQUIRE IT. MOST VET SCHOOL APPLICATIONS ARE DUE EARLY IN FALL SEMESTER OF YOUR SENIOR YEAR. YOU WILL ALSO NEED TO REQUEST AN APPLICATION FOR DEGREE FROM THE REGISTRAR DURING SPRING SEMESTER SO THAT YOU CAN GRADUATE.

Senior

<i>Seventh Semester- Fall</i>	<i>Eighth Semester- Spring</i>
EQSC 4000 Animal Nutrition Lec + Lab (WI) (4 ch) SYE* Senior Year Experience (3 ch) INST 2800* Global Cultures (3 ch) EQSC 3410* Service Learning (1 ch) COMM 1100 Public Speaking (3 ch) BMB 4500 Biochemistry I (3 ch)	EQSC 4100 Contemporary Issues (WI) (3 ch) BIO 2800 Human Microbiology (3 ch) INST 3000* Interdisciplinary Seminar (3 ch) Electives (3-9 ch)
<i>Total Hours: 17</i>	<i>Total Hours: 12-18</i>

*Can be taken either semester senior year.

Total Hours: 109 + 11 hours minimum for electives (120 total needed for graduation).

EQUINE SCIENCE ELECTIVE OPTIONS

EQSC 2400 Equine-Assisted Psychotherapy (Spring even years) 3 ch

EQSC 2900 Therapeutic Riding (Spring odd years) 3 ch

EQSC 3200 Applied Equine Business Principles (Fall) 3 ch*

EQSC 3300 Facility Design (Spring) 3 ch*

EQSC 3400 Evaluating Equine Conformation (Spring) 3 ch*

EQSC 3500 Legal Aspects of the Equine Industry (Fall) 3 ch*

EQSC 3900 Independent Study

EQSC 4900 Internship

*Counts as upper-level equine elective (need 3 credits to graduate).

OTHER RECOMMENDED ELECTIVE OPTIONS

BIO 2020 Ecology 4 ch

BIO 2030 Cell Biology 4 ch

BIO 2900 Basic Pathophysiology 3 ch

BIO 3030 Animal Reproduction 4 ch

BIO 3050 Animal Behavior 4 ch

BIO 3100 Molecular Genetics 4 ch

BIO 3120 Immunology 4 ch

BIO 3140 Developmental Biology 4 ch

BIO 3320 Field Zoology

BIO 3400 Vertebrate Biology 4 ch

BIO 3420 Comparative Vertebrate Anatomy 4 ch

BIO 3440 Animal Systems Physiology 4 ch

BIO 3920 Bioinformatics

ZOSC 3010 Animal Welfare and Operant Conditioning 2 ch

PUBH 2400 Public Health Epidemiology 4 ch

CHEM 3100 and 3110 Analytical Chemistry 4 ch (taking this course will complete a chemistry minor)

MATH 2240 Statistics II 3 ch

Important Phone Numbers and Email Addresses

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