

## Major in Biology: Specialization in Equine Science

The B.S. degree in Biology allows students (with the properly selected elective courses) to meet admissions requirements for medical school, veterinary school or graduate school in the biological sciences or to enter the work force directly.

The B.A. degree in Biology allows students to prepare for careers, professional schools and graduate schools which do not require the supporting science requirements of the B.S. degree such as biology teaching, master's and second bachelor's programs in physical therapy, and master's programs in wildlife management or environmental management. Since the B.A. degree requires fewer total credits, it provides an excellent opportunity for the student interested in interdisciplinary career to pursue a second major or a minor (such as English, history, politics, art, or business).

### **Major in Biology: Specialization in Equine Science, B. S.**

**67-71 Credits**

#### **Required Courses:**

**41 Credits**

BIO 201 Concepts in Biology I	4 credits
BIO 204 Concepts in Biology II	4 credits
BIO 307 Ecology	4 credits
BIO 310 Genetics	3 credits
BIO 380 Junior Seminar	1 credit
BIO 466 Senior Seminar	1 credit
CHE 210 Essential Concepts of Chemistry	3 credits
CHE 210L Essential Concepts of Chemistry Lab	1 credit
CHE 215 Introduction to Structural Inorganic Chemistry	3 credits
CHE 215L Introduction to Structural Inorganic Chemistry Lab	1 credit
CHE 220 Introductory Organic Chemistry I	3 credits
CHE 220L Introductory Organic Chemistry I Lab	2 credits
CHE 350 Introductory Organic Chemistry II	3 credits
CHE 350L Introductory Organic Chemistry II Lab	2 credits
EQ 350 Horse Science I	3 credits
EQ 422 Horse Science II	3 credits

#### **Additional Requirements:**

**26-30 Credits**

#### **One of the following human/animal courses:**

**4 credits**

- BIO 353 Zoology
- BIO 366 Animal Physiology
- BIO 355 Animal Behavior

#### **One of the following plant courses:**

**4 credits**

- BIO 340 Plant Diversity
- BIO 349 Botany

#### **One of the following microbiology/molecular/cell courses:**

**3-5 credits**

- BIO 365 Microbiology
- BIO 453 Cell Biology
- BIO 460 Molecular Biology

#### **Two Equine Science courses:**

**6 credits**

- EQ 420 Equine Nutrition
- EQ 415 Current Therapies in Equine Internal Medicine

EQ 416 Introduction to Equine Clinical Pharmacology

EQ 417 Equine Orthopedic Lameness

**One of the following mathematics courses**

**3-4 credits**

MAT 225 Introductory Statistics

MAT 221 Calculus I

**Choose one of the course sets below**

**6-8 credits**

PHY 201/211 Physics I or General Physics I

PHY 202/212 Physics II or General Physics II

**Major in Biology: Specialization in Equine Science, B.A.**

**51 -53 Credits**

**Required Courses:**

**34 credits**

BIO 201 Concepts in Biology I

4 credits

BIO 204 Concepts in Biology II

4 credits

BIO 307 Ecology BIO 310 Genetics

3 credits

BIO 380 Junior Seminar

1 credit

BIO 466 Senior Seminar

1 credits

CHE 210 Essential Concepts of Chemistry

3 credits

CHE 210L Essential Concepts of Chemistry Lab

1 credit

CHE 215 Introduction to Structural Inorganic Chemistry

3 credits

CHE 215L Introduction to Structural Inorganic Chemistry Lab

1 credit

MAT 225 Introductory Statistics

3 credits

EQ 350 Horse Science I

3 credits

EQ 422 Horse Science II

3 credits

**Additional Requirements:**

**17-19 Credits**

One of the following human/animal courses:

4 credits

BIO 353 Zoology

BIO 366 Animal Physiology

BIO 355 Animal Behavior

One of the following plant courses:

4 credits

BIO 340 Plant Diversity

BIO 349 Botany

One of the following microbiology/molecular/cell courses:

3-5 credits

BIO 365 Microbiology

BIO 453 Cell Biology

BIO 460 Molecular Biology

Two Equine Science courses:

3 credits

EQ 420\* Equine Nutrition

EQ 415 Current Therapies in Equine Internal Medicine

EQ 416 Introduction to Equine Clinical Pharmacology

EQ 417 Equine Orthopedic Lameness

\* This course can be met with an online Animal Nutrition course.

One additional elective from the MAT, CIS, PSY, TH or EQ 3