

# DEPARTMENT OF AGRICULTURE

## Pre-Professional Program in PRE-VETERINARY MEDICINE

Effective Fall 2009

The Pre-veterinary Medicine curriculum prepares students for entrance into a veterinary medicine school. The curriculum outlined below is specifically designed to meet the entrance requirements for the University of Missouri-Columbia, College of Veterinary Medicine. Students that are interested in attending other schools of veterinary medicine should work with their pre-vet advisor to adjust the curriculum to fit the specific requirements of that particular school. It is possible for a student to enter a veterinary-medicine school by taking only the required classes and not first obtain a B.S. degree, but the great majority first receive a B.S. degree. It is recommended that, in addition to the Pre-veterinary Medicine major, you select a complementary major for your B.S. degree. The majors recommended by the UMC College of Veterinary Medicine are Animal Science, Chemistry and Biology.

### CURRICULUM CHECKLIST (Note: bold-face classes are required)

#### UNIVERSITY STUDIES (53 hours)

___ UI 100 First Year Seminar	3
___ Artistic Expression	3
___ Literary Expression	3
___ <b>Oral Expression</b>	<b>3</b>
___ <b>EN 100 English Composition</b>	<b>3</b>
___ <b>Written Expression</b>	<b>3</b>
___ <b>Behavioral Systems (PY 101 or PY 220)</b>	<b>3</b>
___ <b>BI 151 Biological Reasoning (Living Systems; Biology)</b>	<b>3</b>
___ <b>MA 134 College Algebra (Logical Systems)</b>	<b>3</b>
___ <b>CH 185 General Chemistry I (Physical Systems)</b>	<b>5</b>
___ <b>Development of a Major Civilization</b>	<b>3</b>
___ Economics Systems	3
___ Political Systems	3
___ <b>Social Systems</b>	<b>3</b>
___ UI 3xx Interdisciplinary University Studies Course (UI311 recommended)	3
___ UI 3xx Interdisciplinary University Studies Course (UI344 recommended)	3
___ UI 4xx Senior Seminar	3
___ MAPP Academic Proficiency & Progress Test (to be taken after completing 75 hours)	0
___ WP003 Writing Proficiency Test (to be taken after completing 75 hours)	0

#### ADDITIONAL REQUIRED CLASSES (33 Hours)

___ <b>BI 152 Intro to Sci. Investigation</b>	<b>1</b>
___ <b>BI 153 Intro to Organismal Biology</b>	<b>4</b>
___ <b>BI 154 Genetics and Cell Biology</b>	<b>4</b>
___ <b>CH 186 General Chemistry II</b>	<b>3</b>
___ <b>CH 341 Organic Chemistry I</b>	<b>4</b>
___ <b>CH 342 Organic Chemistry Lab I</b>	<b>1</b>
___ <b>UI 331 Biochemistry</b>	<b>3</b>
___ <b>MA 133 Plane Trigonometry (Required for PH 120)</b>	<b>3</b>
___ <b>PH 120 Introductory Physics I</b>	<b>5</b>
___ <b>PH 121 Introductory Physics II</b>	<b>5</b>

#### UMC Recommended ELECTIVES (10 credits required)

<b>Classes deemed useful by the faculty at UMC College of Veterinary Medicine</b>	
___ AC Principles of Accounting I*	3
___ AG 250 Agribusiness Management*	3
___ AY 101& 105 Animal Science*	5
___ AY 304 Principles of Animal Nutrition*	3
___ AY 311 Animal Breeding*	3
___ BI 200 General Microbiology	3
___ ZO 315 Comparative Anatomy	3
___ ZO 331 Animal Physiology	3
___ MA 155 Statistical Reasoning	3

Other Electives:

___ AD 101 Intro to Microcomputer Appl	3
___ AY 205 Horse Science*	3
___ AY 305 Advanced Horse Science*	3

#### Agribusiness-Animal Science Degree Requirements

##### Additional Classes Needed for the degree

-- Complete the University Studies Classes & Additional Required Classes

--UMC Recommended Electives with Asterisk

--The following additional Agriculture classes:

___ AG 355 Agriculture Seminar	1
___ AG 465 Agriculture Internship	3
___ AY 405 Beef Production	3
___ Additional 4 Upper-division credits (300-500) from Agriculture or Recommended Electives	

--Substitutions may be made for AG 245, AG 334, AG 447, AG 470, AO 120 and HO 130, replaced by the Additional Biology, Chemistry, Math & Physics classes required in this curriculum. Consult with your advisor for appropriate substitutions.

**--Total of 120 Credits to Graduate**

## SUGGESTED PROGRAM OF STUDY

### Pre-veterinary Medicine

Effective Fall Semester 2009

#### FRESHMAN FALL SEMESTER (16 hrs)

AY 101 & 105 Animal Science*	5
CH 185 General Chemistry I	5
MA 134 College Algebra	3
UI 100 First Year Seminar	3
<b>Total</b>	<b>16</b>

#### FRESHMAN SPRING SEMESTER (16)

BI 151 Biological Reasoning	3
BI 152 Intro to Scientific Investigation	1
CH 186 General Chemistry II	3
EN 100 English Composition	3
MA 133 Plane Trigonometry	3
Behavioral Sys (PY 101 or 220)	3
<b>Total</b>	<b>16</b>

#### SOPHOMORE FALL SEMESTER (15)

BI 153 Intro to Organismal Biology	4
CH 341 Organic Chemistry I	4
CH 342 Organic Chemistry Lab I	1
EN 140 Rhetoric & Critical Thinking	3
Recommended Elective	3
<b>Total</b>	<b>15</b>

#### SOPHOMORE SPRING SEMESTER (15)

BI 154 Genetics and Cell Biology	4
UI 331 Biochemistry	3
Development Major Civilization	3
Recommended Elective	3
Social Systems	3
<b>Total</b>	<b>16</b>

#### JUNIOR FALL SEMESTER (14)

PH 120 Intro. Physics I	5
Oral Expression	3
University Studies or Rec. Elective	3
University Studies or Rec. Elective	3
<b>Total</b>	<b>14</b>

#### JUNIOR SPRING SEMESTER (14)

PH 121 Intro. Physics II	5
University Studies or Rec. Elective	3
University Studies or Rec. Elective	3
University Studies or Rec. Elective	3
<b>Total</b>	<b>14</b>

\*A recommended elective by UMC Vet School

Students may enter veterinary medicine school after they have completed their Junior year. Application to a school of veterinary medicine normally begins 12-14 months before one plans to enter (Fall semester). The application and other information about veterinary medicine for UMC may be found at the web site: <http://www.cvm.missouri.edu/>

#### Guidelines from UMC College of Veterinary Medicine

(Taken from: <http://www.cvm.missouri.edu/prep-undergrad.htm> )

Composition or Courses in Communication Skills such as Speech or Technical Writing	6
College Algebra or More Advanced Mathematics	3
Inorganic Chemistry	8
Organic Chemistry (Requires Laboratory)	5
Biochemistry (Requires Organic Chemistry Prerequisite)	3
Physics (Comprehensive Introductory Courses (5 hr. in only the first of a companion series In introductory physics will not suffice)	5
Biological Sciences	10
Social Science and /or Humanistic Studies	10
Electives	10
<b>Minimum Total</b>	<b>60</b>

#### Students should take in-depth courses in these areas

- Inorganic Chemistry courses which prepare them for Organic Chemistry and, finally, Biochemistry
- Biology Department courses which may be selected from zoology and botany or as required in foundation courses in a core program.