

## PRE-VETERINARY MEDICINE

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The pre-veterinary medicine emphasis is offered to those students interested in eventually applying for admission to a college of veterinary medicine. It is a set of requirements recommended for admission to veterinary school rather than a major. That is, students must fulfill additional requirements to receive a bachelor's degree.

Students are urged to select a major that will complement Pre-Vet course requirements. Suggested majors at CSU-Pueblo include chemistry and biology, (depending mainly on alternate career plans, should an applicant not be accepted into a professional veterinary medical program). Many students elect a Biology Major with a Chemistry Minor.

#### **CSU Pre-Veterinary Course Requirements**

The CSU-Pueblo Pre-Vet concentration is aligned with the Pre-Vet Program at CSU-Ft. Collins. Minimum requirements for admission to the professional veterinary program at CSU-Ft. Collins include satisfactory grades in the following courses.

http://www.cvmbs.colostate.edu/ns/students/future\_students/

Biological Sciences - 3 hours in Genetics, plus 1 lab in any biological science

**Chemistry** - 3 hours in biochemistry, plus 1 lab in any chemistry course

English - 3 hours

Statistics or Biostatistics - 3 hours

Physics - 4 hours with lab

Arts, Humanities, Behavioral and Social Sciences - 12 hours.

These credits may be applied toward a Bachelor of Science degree in many major areas. Courses from which the student has been exempted, or courses satisfied by examination cannot be included in the total.

Students interested in other veterinary medicine programs are encouraged to check the Association of American Veterinary Medicine Colleges website: http://www.aavmc.org. Veterinary Medical College Application Service (VMCAS) information and forms can be accessed at:

http://www.aavmc.org/students-applicants-and-advisors/veterinary-medical-college-application-service.aspx

### PRE-VETERINARY REQUIRED COURSES (and Prerequisites) with semester hours

BIOL 181/181L	College Biology I-Organismal/ Lab	4 credits
BIOL 182/182L	College Biology II-Cellular/ Lab	4 credits
BIOL 350	Mendelian and Population Genetics	2 credits
BIOL 351	Molecular Biology and Genetics	2 credits
BIOL 494 ■	Field Experience	1-4 credits
CHEM 121/L & 122/L	General Chemistry I & II with Labs	10 credits
CHEM 301/L & 302/L	Organic Chemistry I & II with Labs	10 credits
CHEM 411	Biochemistry I	3 credits
PHYS 201/L or 202/L	Physics I or II/Lab	4 credits
MATH 156	Introduction to Statistics	3 credits
ENG 101 or 102	Composition I or II	3 credits
General Education	See Catalog	12 credits

■ It is highly recommended that students gain clinical veterinary experience.

## Recommended (\*) & Suggested Science Courses and semester hours

BIOL 112	Nutrition	3 credits
BIOL 202/L	Zoology/Lab*	4 credits
BIOL 220	Medical Terminology *	2 credits
BIOL 301/L	General Microbiology/Lab*	5 credits
BIOL 302/L	Medical Microbiology/Lab*	4 credits
BIOL 321/L	Comparative Vertebrate Anatomy/Lab*	5 credits
BIOL 414/L	Vertebrate Physiology/Lab*	4 credits
BIOL 352	Evolutionary Biology and Ecology	3 credits
BIOL 402	Immunology*	3 credits
BIOL 412/L	Cellular Biology/Lab*	4 credits
BIOL 421/L	Histology/Lab*	4 credits
BIOL 479/L or 481/L	lchthyology/Lab or Entomology/Lab	3 credits
BIOL 483/L or 484/L	Mammology or Ornithology/Lab	3 credits
BIOL 485	Plant Taxonomy/Lab	4 credits
CHEM 412/L	Biochemistry II/Lab	5 credits
PHYS 221/L & 222/L	Physics I & II /Lab	10 credits
PSYCH 222	Understanding Animal Behavior *	3 credits



# **B.S.** in Biology with Pre-Vet Concentration

	Course Name	Credits	Semester
<b>Biology Core Courses</b>		30	
BIOL171	First Year Seminar	1	
BIOL 181/L	College Biology I-Diversity	4	
BIOL182/L	College Biology II-Cellular	4	
BIOL 202/L	Zoology/Lab (F)*	4	
BIOL 301/L	General Microbiology/Lab (F)	5	
BIOL 412/L OR BIOL	Cellular Biology/Lab* (S)		
413/L OR	Plant Physiology/ Lab (SO)		
BIOL414/L	Vertebrate Physiology/Lab* (F)	4	
BIOL 350	Mendelian and Population Genetics <sup>†</sup>	2	
BIOL 351	Molecular Biology and Genetics <sup>†</sup>	2	
BIOL 352	Evolutionary Biology & Ecology	3	
BIOL 493	Senior Seminar (upon completion of core)	1	
	Advisor Approved Upper Division († required)		
Biology Electives	(see *recommended, above & electives List)	12	
CHEM 411	Biochemistry <sup>†</sup>	3	
BIOL 494	Field Experience recommended**	(1-4)	

<u>NOTE:</u> The following courses may NOT be used as electives in the Biology major (\*\*1/2 credits): BIOL 100/L, 112, 121, 121L, 206/L, 223/L, 224/L, 291, 294, 394\*\*, 491, 494\*\*, 495, and 498.

	Total Biology Credits	45	
Science and Math Sup	pport Courses	Credits	Semester
CHEM 121/L	General Chemistry I/Lab +	5	
CHEM 122/L	General Chemistry II/Lab	5	
CHEM 301/L	Organic Chemistry I/Lab	5	
CHEM 302/L	Organic Chemistry II/Lab	5	
PHYS 201/L or 221/L	Principles of Physics I/Lab <sup>†</sup>	4-5	
PHYS 202/L or 222/L	Principles of Physics II/Lab	4-5	
MATH 221	Applied Calculus	4	
MATH 156	Intro to Statistics <sup>†</sup>	3	
	Total Support Credits	35-37	
General Education Co	Total Support Credits ourses (English, plus 12 credits ourses)	35-37 Credits	Semesters
General Education Co	• •		Semesters
	ourses (English, plus 12 credits i)	Credits	Semesters
	eurses (English, plus 12 credits†)  English Composition I & II †	Credits 6	Semesters
ENG 101 & 102	English, plus 12 credits †)  English Composition I & II †  Humanities †	Credits 6	Semesters
ENG 101 & 102	English, plus 12 credits <sup>†</sup> )  English Composition I & II <sup>†</sup> Humanities <sup>†</sup> Speaking and Listening	6 6 3	Semesters
ENG 101 & 102	English, plus 12 credits †)  English Composition I & II †  Humanities †  Speaking and Listening  Social Science † (PSYCH 222 recommended)	6 6 3 3	Semesters
ENG 101 & 102	English, plus 12 credits †)  English Composition I & II †  Humanities †  Speaking and Listening  Social Science † (PSYCH 222 recommended)  Social Science  History	6 6 3 3 3	Semesters