



UNIVERSITY OF COLORADO
AT COLORADO SPRINGS
COLLEGE OF LETTERS, ARTS
AND SCIENCES

Department of Biology

Exercise Science Option

Department Chair: Dr. Jackie Berning, Associate Professor

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Department Website: <http://www.uccs.edu/~biology>

Objectives:

- ◆ Biologists seek to answer questions concerning all aspects of all living things. Biologists create new knowledge in diverse areas such as population dynamics, gene structure and function, health and disease, and increased yields of food products.
- ◆ The Exercise Science degree option is designed to prepare the student for graduate studies in physiology, exercise science, or other applied physiology programs.
- ◆ Get more involved on campus! Join Beta Beta Beta, the Pre-Med Society or Students for Environmental Awareness and Sustainability (SEAS) to meet other students also interested in this field. Contact the ROAR office at roar@uccs.edu or 262-3470 for more information.

	<u>Credits</u>
B.A. Biology – Exercise Science Option – 30 credits, 16 upper division	
(NOTE: BIOL 100, 105, 106, 114, 151 and 153 cannot be counted toward this major)	
(Grade of ‘C-’ or higher must be attained in <i>all</i> required courses.)	
BIOL 120 (<i>formerly 115/116</i>) General Biology I + Lab	4
BIOL 121 (<i>formerly 110/111</i>) General Biology II + Lab	4
BIOL 300 Biology Statistics	3
BIOL 302 Cell Biology	3
BIOL 321 Human Physiology	4
BIOL 330 Exercise Physiology	3
BIOL 383 Genetics	3
BIOL 401 Seminar in Biology	1
BIOL 425 Evolution	3
BIOL 435 Human Anatomy	4
BIOL 455 Biomechanics/Kinesiology	3
BIOL 479 Laboratory Methods in Exercise Physiology	3
BIOL 480 Advanced Practice in Exercise Physiology	3
BIOL 483 Biochemistry Principles*	3
One Course from:	3-4
BIOL 205 Nutrition for Health Sciences	
BIOL 205 Nutrition for Health Sciences	
BIOL 361 Vertebrate Embryology/ Dev. Anatomy	
BIOL 422 Epidemiology	
BIOL 430 Advanced Nutrition	
BIOL 460 Biomechanics of Musculoskeletal Injury	
BIOL 477 Human Metabolism	
BIOL 490 Pathobiology	
<u>Auxiliary Requirements</u>	
CHEM 103/106 General Chemistry + Lab I/II	10
CHEM 330/340 Organic Chemistry + Lab**	5
PES 101, 102, 115, 215 Physics of Life Sciences + Labs I & II OR	
PES 111, 112, 116, 216 General Physics + Labs I & II	10
MATH 135 Calculus I	4
<u>General Education Requirements**</u>	
**Students are required as part of their general education requirements to complete courses in Oral Communication, Cultural Diversity, and Global Awareness. These courses are identified in the LAS section of the schedule of courses and in the bulletin.	
Composition Requirement	6
Humanities Area Requirement	
General	9
Core	3
Social Science Area Requirement	12
General electives	+ 14
Total Credits - 45 upper division (300-400) level	120

*BIOL 481 & 482 required for several graduate and medical programs

**CHEM 331-334 required for several graduate and medical programs

MODEL DEGREE PROGRAM

BIOLOGY-EXERCISE SCIENCE OPTION

The following four-year plan lists all the specific course requirements for the Bachelor of Science in Biology degree. The order in which these courses are taken may vary with course availability. **Students are responsible for completing all course prerequisites.** Please note that this is a *suggested* degree program; your program may vary.

Suggested First Year

FALL

- _____ ENGL 131 Rhetoric & Writing I
(Prer. of ENGL 099 or ACT 19+ or SAT 450+)*
- _____ BIOL 120 Gen. Biology I + Lab-4 cr (**FALL ONLY**)
(Prer. high school chemistry or coreq. CHEM 103)
- _____ ID 101 Freshmen Seminar OR General Elective
- _____ CHEM 103 General Chemistry I-5 cr
(Prer. 1 yr high school chemistry and 2 years high school math)

TOTAL=15 credits

SPRING

- _____ ENGL 141 Rhetoric & Writing II
(Prer. of ENGL 131 or ACT 29+ or SAT 650+)*
- _____ BIOL 121 Gen. Biology II + Lab-4 cr (**SPRING ONLY**) (Prer. BIOL 120)
- _____ MATH 135 Calculus I-4 cr (Prer. MATH 105 or score of 10+ on Calc. Readiness Exam)
- _____ CHEM 106 General Chemistry II-5 cr
(Prer. CHEM 103 with grade of 'C' or higher)

TOTAL=16 credits

Suggested Second Year

FALL

- _____ BIOL 302 Cell Biology (**FALL ONLY**) (Prer. BIOL 120, 121 and CHEM 103, 106)
- _____ PES 101/115 Physics for Life Science I + Lab-5 cr
(Prer. Two years high school algebra)
- _____ CHEM 330/340 Organic Chemistry + Lab-5 cr (**FALL ONLY**)
(Prer. CHEM 106 with grade of 'C' or higher)
- _____ General Humanities Elective

TOTAL=16 credits

SPRING

- _____ BIOL 321 Human Physiology – 4cr. (**SPRING ONLY**)
(Prer. BIOL 120, 121)
- _____ PES 102/215 Physics for Life Science II + Lab-5 cr (**SPRING ONLY**) (Prer. PES 101/115)
- _____ Oral Communication requirement
- _____ Social Science Elective (G)

TOTAL=15 credits

Suggested Third Year

FALL

- _____ BIOL 300 Biology Statistics (**FALL ONLY**) (Prer. Math 135)
- _____ BIOL 425 Evolution (**FALL ONLY**)
- _____ BIOL 435 Human Anatomy – 4cr. (**FALL ONLY**)
(Prer. BIOL 120, 121)
- _____ General Humanities Elective
- _____ Social Science Elective

TOTAL=16 credits

SPRING

- _____ BIOL 383 Genetics (**SPRING ONLY**) (Prer. BIOL 302)
- _____ BIOL 455 Biomechanics/Kinesiology (**SPRING ONLY**)
(Prer. BIOL 321 and 435)
- _____ Biology Elective from List (prer. may apply)
- _____ Social Science Elective (C)
- _____ General Humanities Elective

TOTAL=15 credits

Suggested Fourth Year

FALL

- _____ BIOL 483 Biochemistry Principles (Prer. BIOL 121)
- _____ BIOL 330 Exercise Physiology (**FALL ONLY**)
(Prer. BIOL 321 and 435)
- _____ BIOL 479 Lab Methods in Exercise Physiology (**FALL ONLY**) (Prer. Consent of Instructor)
- _____ HUM 300+ Core Humanities (Prer. of junior status)
- _____ General Elective – 2cr.

TOTAL=14 credits

SPRING

- _____ BIOL 401 Seminar in Biology-1 cr
(Prer. Senior status)
- _____ BIOL 480 Adv. Practice in Exercise Physiology (**SPRING ONLY**) (Prer. Consent of Instructor)
- _____ Social Science Elective
- _____ General Elective
- _____ Upper Division General Elective

TOTAL=13 credits

All courses are 3 credits unless otherwise stated.

*ACT/SAT placement scores are based on the English section of the exam only.

Courses fulfilling General Humanities and Social Sciences, as well as the Global Awareness (G), Cultural Diversity (D) and Oral Communication (O) requirements, may be found in the Bulletin or the current schedule.

Electives may be used toward a minor, a 2nd major, prerequisites, additional courses in Biology (up to 54 credits maximum) or just for fun!