Exercise Sciences, B.S.

Virtually every organism is dependent on movement (both intracellular and extracellular) in one form or another. With respect to humans, physical activity imposes unique stresses on a broad spectrum of cell types, tissues, and organ systems. In so doing, physical activity plays a key role in shaping fundamental biological processes necessary for maintaining health and preventing disease. While both human and nonhuman species exhibit many common biological phenomenon, there are also many unique aspects of their physiology. This major will also highlight some of the unique physiological traits of nonhuman species and how such unique phenomenon may provide important insights into human health. Upper-division courses in this major are designed to integrate fundamental principles of biology, chemistry, and physics into a coherent understanding of how physical activity/inactivity impacts human health under healthy and diseased states.

The major in Exercise Sciences is open to junior- and senior-level students only. Applications to declare the major can be submitted after the spring quarter of the sophomore year, if all change of major requirements are satisfied. Review of applications submitted at that time and selection to the major by the Exercise Science Faculty Board is completed at the end of the sophomore year. Information can also be found at UCI Change of Major Criteria website (http://www.changeofmajor.uci.edu/). Double majors within the School of Biological Sciences or with Public Health Sciences, Biomedical Engineering: Premedical, Nursing Science, or Pharmaceutical Sciences are not permitted.

All students must meet the University Requirements (http://catalogue.uci.edu/informationforadmittedstudents/requirementsforabachelorsdegree/).

All students must meet the School Requirements (http://catalogue.uci.edu/charliedunlopschoolofbiologicalsciences/#schoolrequirementstext).

Major Requirements for the B.S. in Exercise Sciences

A. Required Major Courses:	
BIO SCI D103	Cell Biology
BIO SCI E109	Human Physiology
BIO SCI E117A- E117B- E117C	Exercise Sciences Seminar and Exercise Sciences Seminar and Exercise Sciences Seminar
BIO SCI E183	Exercise Physiology
B. Upper-Division Electives:	
Select three of the following:	
BIO SCI D170	Applied Human Anatomy
BIO SCI E136	The Physiology of Human Nutrition
BIO SCI E139	Animal Locomotion
BIO SCI E147	Behavioral Endocrinology
BIO SCI E155	Physiology in Extreme Environments
BIO SCI N110	Neurobiology and Behavior
Select one 4-unit course from the following:	
BIO SCI D103-D190	
BIO SCI E106-E190	
BIO SCI M114-M190	
BIO SCI N110-N190 (excluding BIO SCI N120A-BIO SCI N120B-BIO SCI N120C)	
C. Upper-Division Laboratories:	
Complete:	
BIO SCI E112L	Physiology Laboratory
And select two from the following:	
BIO SCI D111L	Developmental and Cell Biology Laboratory
BIO SCI E106L	Habitats and Organisms
BIO SCI E115L	Evolution Laboratory
BIO SCI E131L	Image Analysis in Biological Research
BIO SCI E140L	Evolution and the Environment Laboratory
BIO SCI E160L	Biology of Birds Lab
BIO SCI E166L	Field Biology
BIO SCI E179L	Field Freshwater Ecology

BIO SCI E186L	Population and Community Ecology Lab
BIO SCI M114L	Biochemistry Laboratory
BIO SCI M116L	Molecular Biology Laboratory
BIO SCI M118L	Experimental Microbiology Laboratory
BIO SCI M121L	Advanced Immunology Laboratory
BIO SCI N113L	Neurobiology Laboratory
BIO SCI N123L	Human Neuroimaging Lab

NOTE: No course may be used to satisfy more than one upper-division major requirement.

Freshman		
Fall	**Winter**	**Spring**
BIO SCI 93	BIO SCI 94	CHEM 1C- 1LC
BIO SCI 93L	BIO SCI 94L	Lower-Division Writing[1]
CHEM 1A	CHEM 1B	STATS 7 or 8 (or Math 5A or General Education)
BIO SCI 2A	Lower-Division Writing[1]	
General Education	General Education	
Sophomore		
Fall	**Winter**	**Spring**
BIO SCI 97	BIO SCI 98	BIO SCI 99
CHEM 51A	CHEM 51B- 51LB	CHEM 51C- 51LC
CHEM 1LD	MATH 5B (or General Education)	General Education
MATH 5A or 5B		
Junior		
Fall	**Winter**	**Spring**
BIO SCI E109	BIO SCI E112L	UD Bio Sci Elective
BIO SCI 100	BIO SCI E183	UD Bio Sci Elective
PHYSICS 3A	PHYSICS 3B	BIO SCI 199
	PHYSICS 3LB	PHYSICS 3C
		PHYSICS 3LC
Senior		
Fall	**Winter**	**Spring**
BIO SCI E117A	BIO SCI E117B	BIO SCI E117C
BIO SCI D103	UD Bio Sci Elective	UD Bio Sci Lab
UD Bio Sci Lab	General Education	UD Bio Sci Elective
BIO SCI 199	BIO SCI 199	BIO SCI 199

1 Students have the option of taking HUMAN 1AS, HUMAN 1BS, HUMAN 1CS or WRITING 40, WRITING 50, WRITING 60 in order to fulfill the lower-division writing requirement.

- Biological Sciences, B.S.
- Biological Sciences, M.S.
- Biological Sciences, Minor
- Biological Sciences, Ph.D.
- Biology/Education, B.S.
- Biotechnology Management, M.S.
- Human Biology, B.S.