

**EXERCISE BIOLOGY PROGRAM
UNIVERSITY OF CALIFORNIA
DAVIS, CALIFORNIA**

**COURSES TO MEET THE REQUIREMENT FOR UPPER DIVISION
NON-EXERCISE BIOLOGY UNITS IN THE EXERCISE SCIENCE BS DEGREE**

Ten (10) units of upper division work are required in departments outside the major for the Bachelor of Science degree in Exercise Science. In the Exercise Physiology emphasis, 6 (or more) of these 10 units must come from the following courses:

BIS 102 (3;I,II,III)	Structure and Function of Biomolecules (CHE 8B or 118B or 128B), or NUT 111AV (3;III) Introduction to Nutrition & Metabolism (CHE 8B; NPB 101) and NUT 111B (2;III) Recommendations and Standards for Human Nutrition (CHE 8B, NPB 101)
NPB 112 (3;I,III)	Neuroscience (NPB 100 or 101)
NPB 113 (4;II)	Cardiovasc., Resp., & Renal Phys. (NPB 101; CHE 8B & PHY 7B & 7C rec.)
NPB 140 (3;II)	Principles of Environmental Physiology (NPB 101; BIS 102 rec.)

In the Biomechanics emphasis, 3 (or more) of these 10 units must come from the following courses:

ENG 102 (4;I,II,III)	Dynamics (ENG 35; MAT 22B)*
NPB 112 (3;I)	Neuroscience (NPB 100 or 101)

The remaining units may be selected from among the courses listed below if not taken for another major requirement. Except as noted (*), these courses should not require additional prerequisite courses beyond normal preparation for the major. Since course requirements change continuously and courses are not always offered as scheduled, check to be certain.

ANT 151 (4;III)	Primate Evolution (ANT 1 or BIS 1B)
ANT 152 (5;II)	Human Evolution (ANT 1 or BIS 1B)
ANT 153 (5;I)	Human Biological Variation (ANT 1 or BIS 1B)
ANT 155 (4;II)	Comparative Primate Anatomy (BIS 1B)
ANT 156 (4;III)	Human Osteology (ANT 1 or equivalent)
ANT 158 (4;I)	Evolution of Females and Males: Biological Perspective (ANT 1)
BIS 101 (4;I,II,III)	Genes & Gene Expression (BIS 1A, 1B, 1C; CHE 8B or 118B or 128B)
BIS 102 (3;I,II,III)	Structure and Function of Biomolecules (CHE 8B or 118B or 128B)
BIS 103 (3;I,II,III)	Bioenergetics and Metabolism (BIS 102)*
BIS 104 (3;I,II,III)	Regulation of Cell Function (BIS 101, BIS 102)*
CHE 118A (4;I,II)	Organic Chemistry for Health & Life Sciences (CHE 2C/C- or better)
CHE 118B (4;II,III)	Organic Chemistry for Health & Life Sciences (CHE 118A)
CHE 118C (4;I,III)	Organic Chemistry for Health & Life Sciences (CHE 118B)
ENG 102 (4;I,II,III)	Dynamics (ENG 35, MAT 22B)*
ENT 153 (3;I)	Medical Entomology (BIS 1A, 1B; UD standing in one of the biosciences or COI)
ESP 100 (4;I)	General Ecology (BIS 1A, 1B, 1C; MAT 16A, 16B; STA 13 recommended)
ESP 121 (4;II)	Population Ecology (BIS 1B, 1C; MAT 16A, 16B) Offered alternate years
ESP 126 (4)	Environmental and Occupational Epidemiology (STA 13, UD standing)
ETX 101 (3;I)	Principles of Environmental Toxicology (BIS 1A; CHE 8B or 118B or 128B)
EVE 100 (4;I,II,III)	Intro. to Evolution (BIS 1A, 1B, 1C; MAT 16A, 16B, 16C or equiv.; STA 13 or 100)*
EVE 101 (4;I,II,III)	Intro. To Ecology (BIS 1A, 1B, 1C; MAT 16A, 16B, 16C or equivalent)
EVE 105 (4;II)	Phylogenetic Analysis of Vertebrate Structure (prereq: BIS 1A, 1B)
EVE 141 (3;III)	Principles of Systematics (prereq: BIS 1B or 1C; EVE 100 recommended)
EVE 147 (4;I)	Biogeography (prereq: BIS 1A, 1B)

FST 100A (4;I)	Food Chemistry (CHE 8B; BIS 1A recommended)
FST 100B (4;II)	Food Properties (FST 100A or COI)
FST 101A (2;I)	Food Chemistry Laboratory (FST 100A or concurrent)
FST 101B (2;II)	Food Properties Laboratory (FST 100B or concurrent)
MIC 102 (4;I,II,III)	General Bacteriology (BIS 1A; CHE 8B or 118B or concurrent)
MIC 102L (2;I,II,III)	General Bacteriology Laboratory (MIC 102 or concurrent)
MCB 150 (4;I,III)	Embryology (BIS 101; MCB 150L concurrently)
MCB 150L (1;I,III)	Laboratory in Vertebrate Embryology (MCB 150 concurrently)
NPB 111C (3)	Adv. Systemic Phys. Lab. (NPB 101, 101L; STA 13; NPB 112, 113 or 114 rec.)
NPB 112 (3;I)	Neuroscience (NPB 100 or 101)
NPB 113 (4;II)	CV, Resp., & Renal Physiology (NPB 101; CHE 8B; PHY 7B and 7C rec.)
NPB 125 (3;III)	Comparative Physiology: Neurointegrative Mechanisms (NPB 101)
NPB 126 (3;II)	Comparative Physiology: Sensory Systems (NPB 100 or 101)
NPB 127 (3;II)	Comparative Physiology: Circulation (NPB 101)
NPB 128 (3;II)	Comparative Physiology: Endocrinology (NPB 101)
NPB 129 (3;II)	Comparative Physiology: Respiration (NPB 101) Offered alternate years
NPB 130 (4;I)	Physiology of the Endocrine Glands (NPB 101)
NPB 140 (3;II)	Principles of Environmental Physiology (NPB 101; BIS 102 recommended)*
NUT 111AV (3;III)	Introduction to Nutrition and Metabolism (CHE 8B; NPB 101 or equivalent)
NUT 111B (2;III)	Recommendations and Standards for Human Nutrition (prereq: CHE 8B, NPB 101)*
PSC 121 (4;I,II,III)	Physiological Psychology (PSC 1, 41, 101)
PSC 129 (4;I,III)	Sensory Processes (PSC 1, 41, 101)
STA 104 (4;II)	Applied Statistical Methods: Nonparametric Stat. (STA 13, 32, or 102) Offered alt. yrs
STA 106 (4;I,II)	Applied Statistical Methods: Analysis of Variance (STA 13, 32, or 102)
STA 108 (4;I,II,III)	Applied Statistical Methods: Regression Analysis (STA 13, 32, or 102)

NOTE: There are many changes to courses this year and the changes are not always well documented. Many courses which have been offered may not be offered in any given year. Due to numerous changes in course listings, carefully check each class you intend to take for quarters offered, number of units, prerequisites, and if offered during current academic year.

* This course may require prerequisite courses in addition to those normally taken by our majors.