

Physiological Science Major Check Sheet

Preparation for the Major			
Select one series for each subject			
<i>Courses in bold must be completed before fall of third year.</i>			
Subject	Life Sciences Series		Physical Sciences Series
Life Sciences	☐ LIFESCI 7A		
	☐ LIFESCI 7B		
	☐ LIFESCI 7C		
	☐ LIFESCI 7L		
Chemistry	☐ CHEM 14A		☐ CHEM 20A
	☐ CHEM 14B		☐ CHEM 20B
	☐ CHEM 14C	OR	☐ CHEM 30A
	☐ CHEM 14D		☐ CHEM 30B
	☐ CHEM 14BL		☐ CHEM 20L
	☐ CHEM 14CL		☐ CHEM 30AL
		☐ CHEM 30BL	
Mathematics	☐ LIFESCI 30A		☐ MATH 31A
	☐ LIFESCI 30B	OR	☐ MATH 31B
	☐ LIFESCI 40 or STATS 13		☐ MATH 32A
	OR		
	☐ MATH 3A		
	☐ MATH 3B		
	☐ MATH 3C		
Physics	☐ PHYSICS 5A		☐ PHYSICS 1A
	☐ PHYSICS 5B	OR	☐ PHYSICS 1B
	☐ PHYSICS 5C		☐ PHYSICS 1C
		☐ PHYSICS 4AL	
		☐ PHYSICS 4BL	

The Major			
Course Number	Course Name	Units	Notes
☐ CHEM 153A	Biochemistry: Introduction to Structure, Enzymes, and Metabolism	4	
The Core Series			
☐ PHYSCI 107	Systems Anatomy	5	- Only offered in the fall quarter - Should be taken in fall of third year
☐ PHYSCI 111A	Foundations in Physiological Science	6	- Only offered in the winter quarter - Should be taken in winter of third year
☐ PHYSCI 111B	Foundations in Physiological Science	6	- Only offered in the spring quarter - Should be taken in spring of third year
Elective Requirement			
5 upper division (UD) major electives			
☐ PHYSCI UD 1			
☐ PHYSCI UD 2			- One elective may be an approved non-PHYSCI course from the list below - Up to two courses from PHYSCI 199 (4 units minimum) OR PHYSCI 198A/B may be applied toward the elective requirement
☐ PHYSCI UD 3			
☐ PHYSCI UD 4			
☐ PHYSCI UD 5			

Preparation for the Major Policies

- Each major preparation course must be completed with a grade of C or better.
- Repetition of more than one preparation course results in dismissal from the major.
- Courses in bold must be completed before fall of third year with a minimum overall 2.5 GPA to be eligible for the major.

The Major Policies

- One 200-level graduate course may be applied toward the elective requirement with department approval.
- PHYSCI 189HC, 191H, 192, 193, 195, 196, and graduate courses at the 300, 400, or 500 level may not be applied toward the elective requirement.
- Each required and elective course must be taken for a letter grade and a C average (2.0 GPA) must be maintained in all upper division courses taken for the major.
- A grade of C or better is required in PHYSCI 107 and 111A to enroll in PHYSCI 111B.
- Students may be dismissed from the major if they fail to meet these requirements.

A Note on Upper Division Units

Students are required to complete a minimum of 60 upper division units to graduate. The Phy Sci upper division requirements from Fall 2026 onwards satisfy approximately 41-45 upper division units. Students must take additional upper division courses (numbered between 100-199) outside of the Phy Sci major to meet the minimum upper division unit requirement for graduation.

Approved Upper Division Physiological Science Electives

Course Number	Course Name	Units
PHYSCI 100	Experimental Statistics	4
PHYSCI 105	Physiological Mechanisms of Social Behavior	4
PHYSCI M106	Neurobiology of Bias and Discrimination	4
PHYSCI 108	Head and Neck Anatomy: Evolutionary, Biomechanical, Developmental, and Clinical Approach	4
PHYSCI 109	Cellular and Molecular Insights into Cardiovascular Development and Disease	4
PHYSCI 110	How Cancer Co-Opts Normal Physiology	4
PHYSCI 112	Translational Physiology: Basic Science to Clinical Care	4
PHYSCI 120	Kidney: Understanding It from Development to Disease to Therapy	4
PHYSCI 121	Disease Mechanisms and Therapies	5
PHYSCI 122	Biomedical Technology and Physiology	4
PHYSCI CM123	Neurobiology of Sleep	4
PHYSCI 124	Molecular Biology of Aging	4
PHYSCI 125	Molecular Systems Biology	5
PHYSCI C126	Biological Clocks	4
PHYSCI C127	Neuroendocrinology of Reproduction	4
PHYSCI 128	Me, Myself, and Microbes: The Microbiome in Health and Disease	5
PHYSCI C130	Sex Differences in Physiology and Disease	4
PHYSCI M135	Dynamical Systems Modeling of Physiological Processes	5
PHYSCI 136	Pathophysiology of Cardiovascular Diseases	5
PHYSCI 138	Neuromuscular Physiology and Adaptation	4
PHYSCI 140	Hormones and Behavior in Humans and Other Animals	4

PHYSCI M141	Aging Brain: Neuroscience of Getting Older and Wiser	4
PHYSCI C144	Neural Control of Physiological Systems	4
PHYSCI M145	Neural Mechanisms Controlling Movement	5
PHYSCI 146	Principles of Nervous System Development	5
PHYSCI 147	Neurobiology of Learning and Memory	5
PHYSCI 148	Physiological Regulation of Metabolism and Nutrient Sensing	4
PHYSCI 149	Systems Biology and Mechanisms of Major Cardiometabolic Diseases	4
PHYSCI C150	Musculoskeletal Mechanics	5
PHYSCI C152	Musculoskeletal Anatomy, Physiology, and Biomechanics	5
PHYSCI 153	Dissection Anatomy	5
PHYSCI 154	Cellular Communication and Regulation of Physiological Processes	4
PHYSCI 155	Development and Structure of Musculoskeletal System	4
PHYSCI 156	Molecular Mechanisms and Therapies for Muscular Dystrophy	4
PHYSCI M164	Physiological and Sociocultural Disparities of Brain Aging and Neurodegeneration	4
PHYSCI 165	Comparative Animal Physiology	5
PHYSCI 166	Animal Physiology	6
PHYSCI 167	Physiology of Nutrition	4
PHYSCI 173	Anatomy and Physiology of Sense Organs	4
PHYSCI 174	Cell Biophysics in Physiology and Disease	5
PHYSCI 175	Why Fido Can't Speak: Biological Evolution of Language	5
PHYSCI M176	Auditory Neuroscience of Speech Perception and Vocal Communication	4
PHYSCI 177	Neuroethology	5
PHYSCI M178	Quantitative Regulatory Biology and Signal Transduction	4

PHYSCI M180A	Neuroscience: From Molecules to Mind—Cellular and Systems Neuroscience	5
PHYSCI M180B	Neuroscience: From Molecules to Mind—Molecular and Developmental Neuroscience	5
PHYSCI M180C	Neuroscience: From Molecules to Mind—Behavioral and Cognitive Neuroscience	5
PHYSCI 198A	Honors Research in Physiological Science	4
PHYSCI 198B	Honors Research in Physiological Science	4
PHYSCI 199	Directed Research or Senior Project in Physiological Science	4

Approved Upper Division Non-Physiological Science Electives*

**Only one course from this list may be applied toward the major elective requirement.*

Course Number	Course Name	Units
CHEM 153B	Biochemistry: DNA, RNA, and Protein Synthesis	4
CHEM 153C	Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation	4
EE BIOL 100	Introduction to Ecology and Behavior	5
EE BIOL 110	Vertebrate Morphology	6
EE BIOL 111	Biology of Vertebrates	5
EE BIOL 120	Evolution	5
EE BIOL 121	Molecular Evolution	4
EE BIOL 162	Plant Physiology	4
ENV HLT 100	Introduction to Environmental Health	4
LIFESCI 107	Genetics	5
MCD BIO 138	Developmental Biology	5
MCD BIO 144	Molecular Biology of Cellular Processes	5
MIMG 101	Introductory Microbiology	4
MIMG 102	Introductory Virology	4
MIMG 185A	Immunology	5
PSYCH 110	Fundamentals of Learning	4
PSYCH 118	Comparative Psychobiology	4
PSYCH 119A	Neuropsychopharmacology of Emotion and Cognition	4
PSYCH 119B	How Brains Learn to Construct Models of Environment	4
PSYCH 119C	Cognitive Neuroscience	4

PSYCH 119D	Learning in Biological and Artificial Neural Networks	4
PSYCH 119E	Neurobiology of Memory and Fear	4
PSYCH 119F	Neural Basis of Behavior	4
PSYCH 119G	Reinforcement Learning in Biological and Artificial Agents	4
PSYCH 119I	Integration of Face and Brain	4
PSYCH 119J	Brain Bugs: Understanding Brain through Its Flaws	4
PSYCH 119K	Neurophilosophy	4
PSYCH 119L	Human Neuropsychology	4
PSYCH 119M	Neural Circuits of Learning and Memory	4
PSYCH 119N	Visual System	4
PSYCH 119O	Psychology of Aging	4
PSYCH 119P	Emerging Topics in Neuroscience	4
PSYCH 119Q	Psychobiology of Sleep and Dreams	4
PSYCH 119U	Neural Correlates of Psychotic Disorders	4
PSYCH 119V	Brain and Art	4
PSYCH 119X	Biology and Behavioral Neuroscience of Aging	4
PSYCH 124A	Language as Cognitive Science	4
PSYCH 127A	Clinical Psychological Science	4
PSYCH 127B	Clinical Psychological Science: Biological Bases	4
PSYCH 127C	Clinical Psychological Science: Developmental Perspectives	4
PSYCH 152	Mind-Body Interactions and Health	4