

## Natural Sciences Elective Options (Revised 03/23/18)

Students may petition for a course not listed here; contact the Psychology Undergraduate Studies office to find out how. Course list is periodically updated. Not every course is offered each semester; check the course schedule for current listings. Because additional NS courses in Psychology may count toward elective credits, courses cross-listed with Psychology are not listed here.

### Biology (BIOLOGY)

Course #	Course Title	Course #	Course Title
154	AIDS & Other Emerging Diseases (GLHLTH 154)	329D	Principles of Animal Physiology
201L	Gateway to Biology: Molecular Biology	330L	Comparative and Functional Anatomy of the Vertebrates
202L	Gateway to Biology: Genetics and Evolution		
207	Organismal Evolution	372LA	Biochemistry of Marine Animals
215L	Introduction to Modeling in Mathematical Biology	373LA	Sensory Physiology and Behavior of Marine Animals
223	Cellular and Molecular Neurobiology	412S	Sensory Signal Transduction
250	Population Genetics	423S	Development of Neural Circuits
255	Introduction to the Philosophy of Biology	426S	Visual Processing
267D	Behavioral Ecology and the Evolution of Animal Behavior	427S	Current Topics in Sensory Biology
311	Systems Biology: An Introduction for the Quantitative Sciences	431S	Human Embryology: Reproductive Biology in the 21 <sup>st</sup> Century
322	From Neurons to Brain	650	Molecular Population Genetics

### Biochemistry (BIOCHEM)

Course #	Course Title	Course #	Course Title
301	Introductory Biochemistry I: Intermediary Metabolism	658	Structural Biochemistry I
302	Introductory Biochemistry II	659	Structural Biochemistry II

### Biomedical Engineering (BME)

Course #	Course Title	Course #	Course Title
244L	Quantitative Physiology with Biostatistical Applications	504	Fundamentals of Electrical Stimulation of the Nervous System
253L	Biomedical Electronic Measurements I	511L	Intermediate Bioelectricity
260L	Modeling Cellular and Molecular Systems	513	Nonlinear Dynamics in Electrophysiology
271	Signals and Systems	515	Neural Prosthetic Systems
307	Transport Phenomena in Biological Systems	527	Cell Mechanics and Mechanotransduction
354L	Introduction to Medical Instrumentation	560	Molecular Basis of Membrane Transport
502	Neural Signal Acquisition	566	Transport Phenomena in Cells and Organs
503	Computational Neuroengineering		

### Cell Biology (CELLBIO)

Course #	Course Title
503	Introduction to Physiology

### Computer Science (COMPSCI)

Course #	Course Title	Course #	Course Title
101L	Introduction to Computer Science	516	Data-Intensive Computing Systems
201	Data Structures and Algorithms	520	Numerical Analysis
220	Introduction to Numerical Methods and Analysis	527	Introduction to Computer Vision
224	Introduction to Computer Modeling	528	Introduction to Computational Science
230	Discrete Math for Computer Science	532	Design and Analysis of Algorithms
260	Introduction to Computational Genomics	570	Artificial Intelligence
270	Introduction to Artificial Intelligence	571D	Machine Learning
316	Introduction to Database Systems	662	Computational Systems Biology
		663	Algorithms in Structural Biology and Biophysics

### Evolutionary Anthropology (EVANTH)

Course #	Course Title	Course#	Course Title
101	Introduction to Evolutionary Anthropology	330L	Human Anatomy and Physiology
101D	Introduction to Evolutionary Anthropology	333L	The Human Body
212FS	Social Structures in an Evolutionary Framework	341	Primate Sexuality
230	Bodies of Evidence: Introduction to Forensic Anthropology	341D	Primate Sexuality
246	Sociobiology	363S	Evolution of Primate Social Cognition
253	Primate Ecology	546S	Primate Social Evolution
285D	Human Health in Evolutionary Perspective	560S	Primate Cognition

### Global Health (GLHLTH)

Course #	Course Title	Course #	Course Title
362	Introduction to Epidemiology Focus on Global Health	641	Non-Communicable Diseases in Low- & Middle-Income Countries: Trends, Causes & Prevention

### Linguistics (LINGUIST)

Course #	Course Title	Course #	Course Title
115FS	Games and the Brain	216FS	Neuroscience and Human Language
123FS	When the Head's in Trouble: Language, Lesions, and Loss	216S	Neuroscience and Human Language
211FS	The Neuroscience of Reading & Language Comprehension	473AS	Neuroscience and Multilingualism
		473S	Neuroscience and Multilingualism
		501	Cognitive and Neurolinguistics

### Mathematics (MATH)

Course #	Course Title	Course #	Course Title
216	Linear Algebra and Differential Equations	353	Ordinary and Partial Differential Equations
218	Matrices and Vector Spaces	403	Advanced Linear Algebra
221	Linear Algebra and Applications	573S	Modeling of Biological Systems

### Neurobiology (NEUROBIO)

Course #	Course Title
559	The Biological Basis of Music

### Neuroscience (NEUROSCI)

Course #	Course Title	Course #	Course Title
111FS	The Neuroscience of Reading & Language Comprehension	289	Music and the Brain
116FS	Neuroscience and Human Language	322	From Neurons to Brain
116S	Neuroscience and Human Language	350	Pharmacology: Drug Actions and Reactions
123FS	When the Head's in Trouble: Language, Lesions and Loss	381LA	Sensory Physiology and Behavior of Marine Animals
157FS	Games and the Brain	385L	Integrative Neuroscience Laboratory
223	Cell and Molecular Neurobiology	423S	Development of Neural Circuits
242A	The Creative Brain: Literature, Arts, & Cognition	426S	Visual Processing
245A	Cultured Brain: Neuroscience of Perception and Action	427S	Current Topics in Sensory Biology
288S	Music as Biology	438AS	Neuroscience & Multilingualism
		439S	Neuroscience & Multilingualism
		501S	Cognitive and Neurolinguistics

### Physical Education (PHYSEDU)

Course #	Course Title
206	Exercise Physiology

### Pharmacology (PHARM)

Course #	Course Title	Course #	Course Title
350	Pharmacology: Drug Actions and Reactions	370	Pharmacogenomics and Personalized Medicine

### Psychology (PSY)

---Any NS course in Psychology---

### Public Policy (PUBPOL)

Course #	Course Title	Course #	Course Title
241	Multi-Method Approaches to Social and Policy Research <sup>1</sup>	348	Science and Policy of Obesity

<sup>1</sup>Accepted methods course outside of Psychology

### Romance Studies (ROMST)

Course #	Course Title
242A	The Creative Brain: Literature, Arts & Cognition

### Sociology (SOCIOL)

Course #	Course Title	Course #	Course Title
332	Methods of Social Research <sup>1</sup>	333	Quantitative Analysis of Sociological Data

<sup>1</sup>Accepted methods course outside of Psychology

### Statistical Science (STA)

Course #	Course Title	Course #	Course Title
101	Data Analysis and Statistical Inference	323	Statistical Computing
102	Introductory Biostatistics	340	Introduction to Statistical Decision Analysis
111	Probability and Statistical Inference	360	Bayesian Inference and Modern Statistical Methods
130	Probability and Statistics in Engineering	471S	Computational Data Analysis
210	Regression Analysis	611	Introduction to Mathematical Statistics
230	Probability	622	Statistical Data Mining
250D	Statistics	623	Statistical Decision Theory
320	Design and Analysis of Causal Studies		
321	Design and Analysis of Surveys		