Natural Sciences Elective Options (Rev. 09/17/19)

The courses listed below have been selected because they cover topics directly applicable to psychology. This is not true for all courses listed as NS on the course. Students may petition for a course not listed here, as long as the course in question addresses psychological concepts and/or research analysis related to the field. To petition, students must submit a copy of the course syllabus to psychologyDUS@duke.edu with the rationale for their request.

This list is updated periodically. 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.

African and African American Studies (AAAS)

Course #	Course Title
261D	Race, Genomics, and Society

Biology (BIOLOGY)

Course #	Course Title	Course #	Course Title
154	AIDS & Other Emerging Diseases	322	From Neurons to Brain
201L	Gateway to Biology: Molecular Biology	329D/L	Principles of Animal Physiology
202L	Gateway to Biology: Genetics and Evolution	330L	Comparative and Functional Anatomy of the Vertebrates
207	Organismal Evolution	372LA	Biochemistry of Marine Animals
215L	Introduction to Modeling in Mathematical Biology	373LA	Sensory Physiology and Behavior of Marine Animals
		412S	Sensory Signal Transduction
223	Cellular and Molecular Neurobiology	423S	Development of Neural Circuits
250	Population Genetics	426S	Visual Processing
255	Introduction to the Philosophy of Biology	427S	Current Topics in Sensory Biology
261D	Race, Genomics, and Society	431S	Human Embryology: Reproductive Biology in the 21st Century
267D	Behavioral Ecology and the Evolution of Animal Behavior	650	Molecular Population Genetics
311	Systems Biology: An Introduction for the Quantitative Sciences		

Biochemistry (BIOCHEM)

Course #	Course Title	Course #	Course Title
301	Introductory Biochemistry I: Intermediary Metabolism	658	Structural Biochemistry I
		659	Structural Biochemistry II
302	Introductory 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
216	Everything Data	527	Introduction to Computer Vision
220	Introduction to Numerical Methods and Analysis	528	Introduction to Computational Science
		532	Design and Analysis of Algorithms
224	Introduction to Computer Modeling	570	Artificial Intelligence
230	Discrete Math for Computer Science	571D	Machine Learning
260	Introduction to Computational Genomics	662	Computational Systems Biology

270	Introduction to Artificial Intelligence	663	Algorithms in Structural Biology and Biophysics
316	Introduction to Database Systems		

Cultural Anthropology (CULANTH)

Course #	Course Title
261D	Race, Genomics, and Society

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
		341D	Primate Sexuality
230	Bodies of Evidence: Introduction to Forensic Anthropology	363S	Evolution of Primate Social Cognition
		546S	Primate Social Evolution
246	Sociobiology	560S	Primate Cognition
253	Primate Ecology		
285D	Human Health in Evolutionary Perspective		

Global Health (GLHLTH)

Course #	Course Title	Course #	Course Title
154	AIDS & Other Emerging Diseases	641	Non-Communicable Diseases in Low- & Middle-Income Countries: Trends, Causes & Prevention
258D	Race, Genomics, and Society		
362	Introduction to Epidemiology Focus on Global Health		

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
		473AS	Neuroscience and Multilingualism
211FS	The Neuroscience of Reading & Language Comprehension	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	322	From Neurons to Brain
		350	Pharmacology: Drug Actions and Reactions
116FS	Neuroscience and Human Language	381LA	Sensory Physiology and Behavior of Marine Animals
116S	Neuroscience and Human Language	385L	Integrative Neuroscience Laboratory
123FS	When the Head's in Trouble: Language, Lesions and Loss	423S	Development of Neural Circuits
		426S	Visual Processing
157FS	Games and the Brain	427S	Current Topics in Sensory Biology
202	Medical Neuroscience	438AS	Neuroscience & Multilingualism
223	Cell and Molecular Neurobiology	439S	Neuroscience & Multilingualism
242A	The Creative Brain: Literature, Arts, & Cognition	501S	Cognitive and Neurolinguistics
245A	Cultured Brain: Neuroscience of Perception and Action		

Physical Education (PHYSEDU)

Course #	Course Title	Course#	Course Title
203	Diet and Nutrition	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	348	Science and Policy of Obesity

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	333	Quantitative Analysis of Sociological Data

Statistical Science (STA)

Course #	Course Title	Course #	Course Title
101	Data Analysis and Statistical Inference	322	Design of Surveys and Causal Studies
102	Introductory Biostatistics	323	Statistical Computing
199L	Introduction to Data Science	340	Introduction to Statistical Decision Analysis
111	Probability and Statistical Inference	360	Bayesian Inference and Modern Statistical Methods
130	Probability and Statistics in Engineering		
210	Regression Analysis	471S	Computational Data Analysis
230	Probability	611	Introduction to Mathematical Statistics
250D	Statistics	622	Statistical Data Mining
320	Design and Analysis of Causal Studies	623	Statistical Decision Theory
321	Design and Analysis of Surveys		