**Quantitative Studies and Natural Science Electives** (Rev. 11/09/2023)

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.

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| **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 | 255 | Introduction to the Philosophy of Biology |
| 180FS | Global Diseases | 261D | Race, Genomics, and Society |
| 201L | Gateway to Biology: Molecular Biology | 267D | Behavioral Ecology and the Evolution of Animal |
| 202L | Gateway to Biology: Genetics and Evolution |  | Behavior |
| 203L | Gateway to Biology: Molecular Biology, Genetics | 311 | Systems Biology: An Introduction for the |
|  | & Evolution |  | Quantitative Sciences |
| 207 | Organismal Evolution | 322 | From Neurons to Brain |
| 209-1 | The Ecology of Human Health | 329D/L | Principles of Animal Physiology |
| 209-2 | Ecology for a Crowded Planet | 330L | Comparative and Functional Anatomy of the Vertebrates |
| 209D-2 | Ecology for a Changing Planet |  |  |
| 212/L | General Microbiology |  412S | Sensory Signal Transduction |
| 215L218 | Introduction to Modeling in Mathematical BiologyBiological Clocks: How Organisms Keep Time | 431S | Human Embryology: Reproductive Biology in the 21st Century |
|  223 | Cellular and Molecular Neurobiology | 438 | Chemical Dialogs in Biology |
|  250/460 | Population Genetics | 650 | Molecular Population Genetics |
| INCH\_252 | Fund. Of Human Anatomy & Physiology |  |  |
| **Biochemistry (BIOCHEM)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 301302 | Introductory Biochemistry I: IntermediaryMetabolismIntroductory Biochemistry II | 658659 | Structural Biochemistry IStructural Biochemistry II |
| **Bioethics and Science Policy (BIOETHICS)** |
| **Course #** | **Course Title** |  |  |
| 603 | Clinical Bioethics and Health Policy |  |  |
| **Biomedical Engineering (BME)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 244L | Quantitative Physiology with Biostatistical | 504 | Fundamentals of Electrical Stimulation of the |
|  | Applications |  | Nervous System |
| 260L | Modeling Cellular and Molecular Systems | 511L | Intermediate Bioelectricity |
| 271 | Signals and Systems | 513 | Nonlinear Dynamics in Electrophysiology |
| 307 | Transport Phenomena in Biological Systems | 515 | Neural Prosthetic Systems |
| 354L | Introduction to Medical Instrumentation | 527 | Cell Mechanics and Mechanotransduction |
| 502 | Neural Signal Acquisition | 560 | Molecular Basis of Membrane Transport |
| 503 | Computational Neuroengineering | 566 | Transport Phenomena in Cells and Organs |
| **Cell Biology (CELLBIO)** |
| **Course #** | **Course Title** |  |  |
| 451 | Introductory to Human Physiology |  |  |

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| **Computer Science (COMPSCI)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 101L201216230260316/D370D516 | Introduction to Computer ScienceData Structures and Algorithms Everything DataDiscrete Math for Computer Science Introduction to Computational Genomics Introduction to Database Systems Introduction to Artificial Intelligence Data-Intensive Computing Systems | 520527528532570571D662663 | Numerical AnalysisIntroduction to Computer Vision Introduction to Computational Science Design and Analysis of Algorithms Artificial IntelligenceMachine Learning Computational Systems BiologyAlgorithms in Structural Biology and Biophysics |
| **Cultural Anthropology (CULANTH)** |
| **Course #**261D | **Course Title**Race, Genomics, and Society |  |  |
| **Economics (ECON)** |
| **Course #**104D | **Course Title**Statistical Foundations of Econometrics and Data Science | **Course #**204D | **Course Title**Econometrics and Data Science |

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| **Engineering (EGR)** |
| 103 | Computational Methods in Engineering |

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| **Evolutionary Anthropology (EVANTH)** |
| **Course #** | **Course Title** | **Course#** | **Course Title** |
| 101/D212FS230246253285D | Introduction to Evolutionary AnthropologySocial Structures in an Evolutionary Framework Bodies of Evidence: Introduction to Forensic AnthropologySociobiology Primate EcologyHuman Health in Evolutionary Perspective | 330/L333L341/D363S546S560S | Human Anatomy and PhysiologyThe Human Body Primate SexualityEvolution of Primate Social Cognition Primate Social EvolutionPrimate Cognition |
| **Global Health (GLHLTH)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 154258D362 | AIDS & Other Emerging DiseasesRace, Genomics, and SocietyIntroduction 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** |
| 115FS123FS | Games and the BrainWhen the Head’s in Trouble: Language, Lesions, and Loss | 216S/FS473S/AS501 | Neuroscience and Human LanguageNeuroscience and Multilingualism Cognitive and Neurolinguistics |
| **Mathematics (MATH)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 112122183216/D218/1/2/D221228L | Lab. Calculus II taken at Duke, no APIntro. Calculus II taken at Duke, no AP Biological Clocks: How Organisms Keep TimeLinear Algebra and Differential Equations Matrices and Vector SpacesLinear Algebra and ApplicationsProbability for Statistics | 230242D340353403573S | ProbabilityStatisticsIntro to Applied MathOrdinary and Partial Differential Equations Advanced Linear AlgebraModeling of Biological Systems |
| **Molecular Genetics and Microbiology (MGM)** |
| **Course #** | **Course Title** |  |  |
| 222FS | Genetics and Epigenetics: The Codes that Control Our Genomes |  |
| **Neurobiology (NEUROBIO)** |
| **Course #** | **Course Title** |  |  |
| 559 | The Biological Basis of Music |  |  |

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| **Neuroscience (NEUROSCI)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 116S/FS123FS157FS202223242A245A | Neuroscience and Human LanguageWhen the Head’s in Trouble: Language, Lesions and LossGames and the Brain Medical NeuroscienceCell and Molecular NeurobiologyThe Creative Brain: Literature, Arts, and CognitionCultured Brain: Neuroscience of Perception and Action | 322350381LA385L438AS439S501S595 | From Neurons to BrainPharmacology: Drug Actions and ReactionsSensory Physiology and Behavior of Marine Animals Integrative Neuroscience LaboratoryNeuroscience & Multilingualism Neuroscience & Multilingualism Cognitive and NeurolinguisticsLanguage, Music and Dementia: Neuroscience Approaches |
| **Pharmacology (PHARM)** |
| **Course #** | **Course Title** | **Course#** | **Course Title** |
| 350 | Pharmacology: Drug Actions and Reactions | 370 | Pharmacogenomics and Personalized Medicine |
| **Physical Education (PHYSEDU)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 203 | Diet and Nutrition | 206 | Exercise Physiology |
| **Psychology (PSY)** |
| **Course #**309 | ---Any NS course in Psychology not used for the AB portion of the major---**Course Title**Research Methods in Global Health |
| **Public Policy (PUBPOL)** |
| **Course #** | **Course Title** | **Course #** | **Course Title** |
| 241 | Multi-Method Approaches to Social and Policy | 242S | Child Policy Research |
|  | Research | 348 | Science and Policy of Obesity |
| **Romance Studies (ROMST)** |
| **Course #** | **Course Title** |  |  |
| 242A | The Creative Brain: Literature, Arts & Cognition |  |  |
| **Science & Society (SCISOC)** |
| 258D | Race, Genomics, and Society |  |  |
| **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/L | Data Analysis and Statistical Inference | 313L | Advanced Data Visualization |
| 102/L | Introductory Biostatistics | 322 | Design of Surveys and Causal Studies |
| 111/L | Probability and Statistical Inference | 323D | Statistical Computing |
| 130L | Probability and Statistics in Engineering | 340 | Introduction to Statistical Decision Analysis |
| 198L/1/2 | Introduction to Health Data Science | 360/L | Bayesian Inference and Modern Statistical |
| 199L | Introduction to Data Science and Statistical |  | Methods |
|  | Thinking | 432 | Theory and Methods of Statistical Learning and |
| 210L | Regression Analysis |  | Inference |
| 230 | Probability | 611 | Introduction to Mathematical Statistics |
| 240L | Probability for Statistical Inference, Modeling, | 622 | Statistical Data Mining |
|  | and Data Analysis | 623 | Statistical Decision Theory |
| 250D | Statistics |  |  |
| **Visual Media Studies (VMS)** |
| **Course #** | **Course Title** |  |  |
| 274D | Race, Genomics, and Society |  |  |