

NATURAL SCIENCES ELECTIVE OPTIONS

Revised 4/19/16

Students may still petition for a course not listed here – contact the undergraduate office to find out how

Biology

- 154 AIDS and Other Emerging Diseases
- 201L Gateway to Biology: Molecular Biology
- 202L Gateways to Biology: Genetics and Evolution
- 207 Organismal Evolution
- 215L Intro to Modeling in Mathematical Biology
- 223 Cellular and Molecular Neurobiology
- 250 Population Genetics
- 267D Behavioral Ecology and the Evolution of Animal Behavior
- 311 Introduction to Systems Biology
- 329D Principles of Animal Physiology
- 330L Anatomy of Vertebrates
- 372LA Biochemistry of Marine Animals
- 373LA Sensory Physiology and Behavior of Marine Animals
- 411S Molecular Genetic Analysis
- 412S Sensory Signal Transduction
- 431S Human Embryology
- 567S Genetic Basis of Behavior
- 650 Molecular Population Genetics

Biochemistry

- 301 Intro Biochemistry I
- 302 Intro Biochemistry II
- 658 Structural Biochemistry I
- 659 Structural Biochemistry II

Biomedical Engineering

- 253L Biomedical Electronic Measurements I
- 354L Biomedical Electronic Measurements II
- 260L Modeling Cellular and Molecular Systems
- 271 Signals and Systems
- 307 Transport Phenomena in Biological Systems
- 502 Neural Signal Acquisition
- 503 Computational Neuroengineering
- 504 Fundamentals of Electrical Stimulation of the Nervous System
- 511 Theoretical Electrophysiology
- 513L Nonlinear Dynamics in Electrophysiology
- 515 Neural Prosthetic Systems
- 516 Computational Methods in Biomedical Engineering
- 527 Cell Mechanics and Mechanotransduction
- 560 Molecular Membrane Transport
- 566 Transport Phenomena in Cells and Organs

Cell Biology

- 503 Introduction to Physiology

Computer Science

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

Evolutionary Anthropology

- 246 Sociobiology
- 285D Human Health in Evolutionary Perspective
- 330L Human Anatomy and Physiology
- 333L Human Body
- 341 Primate Sexuality
- 363S Evolution of Primate Social Cognition
- 546S Primate Social Evolution
- 560S Topics in Primate Cognition

Global Health

- 362 Introduction to Epidemiology Focus on Global Health

Linguistics

- 216S Neuroscience and Human Language

Math

- 216 Linear Algebra and Differential Equations
- 221 Linear Algebra and Applications
- 573S Modeling of Biological Systems

Modeling Biological Systems

- 215 Mathematical Biology
- 605S MatLab Modeling for Biology

Neurobiology

- 541 Theoretical Neuroscience
- 557 Vision
- 559 Biological Basis of Music

Physical Education

- 206 Exercise Physiology

Pharmacology

- 350 Drug Actions and Reactions

Psychology

---Any NS course in Psychology---

Public Policy

- 241 Methods Social Policy Research
- 348 Science and Policy of Obesity

Sociology

- 332 Methods of Social Research***
- 333 Quantitative Analysis of Sociological Data

Statistics

- 101 Data Analysis and Statistical Inference
- 102 Introductory Biostatistics
- 111 Probability and Statistical Inference
- 130 Probability and Statistics in Engineering
- 210 Regression Analysis
- 230 Probability
- 250 Statistics
- 320 Statistics of Causal Studies
- 321 Statistics of Surveys
- 340 Statistical Decision Analysis
- 350S Statistical Methods in Bioinformatics
- 360 Bayesian and Modern Statistics
- 471S Computational Data Analysis
- 611 Introduction to Statistical Methods
- 622 Statistical Data Mining
- 623 Statistical Decision Theory

*** Denotes accepted methods courses outside Psychology

NOTE: Because additional NS courses in Psychology may count toward elective credits, courses cross-listed with Psychology are not listed here