Acceptable Graduate Level Credit Courses

The following courses are acceptable graduate level (500 level and above) courses in Physiology and Science. Students may be required to take additional courses outside this list as recommended by their supervisor and GSAAC. NOTE: Some courses may require permission of student affairs officer and/or professor prior to registration. For detailed course descriptions see Graduate and Postdoctoral Studies Calendar. Choose a concentration:

Anatomy & Cell Biology

ANAT 663 Histology

Physiology

PHGY 502 Exercise Physiology
PHGY 524 Chronobiology
PHGY 508 Advanced Kidney and Electrolyte Physiology
PHGY 513 Cellular and Applied Immunology
PHGY 516 Physiology of Blood II
PHGY 518 Artificial Cells and Immobilization Biotechnology
PHGY 520 Ion Channels (offered in even numbered years)
PHGY 531 Topics in Applied Immunology
PHGY 550 Physiology of Bone
PHGY 552 Cellular and Molecular Physiology
PHGY 556 Topics in System Neuroscience
PHGY 560 Light Microscopy for the Life Sciences
PHGY 610 Biophysics

Bioengineering

BIEN 570 Active Mechanics in Biology

Biochemistry

BIOC 503 Immunochemistry
BIOC 600 Advanced Strategies in Genetics and Genomics
BIOC 603 Genomics and Gene Expression
BIOC 604 Macromolecular Structure
BIOC 605 Protein Biology and Proteomics
BIOC 670 Biochemistry of Lipoproteins

Bioinformatics

BINF 511 Bioinformatics for Genomics

Biology

BIOL 516 Genetics of Development
BIOL 518 Eukaryotic Cell Genetics
BIOL 520 Gene Activity in Development
BIOL 524 Topics in Molecular Biology
BIOL 532 Developmental Neurobiology Seminar
BIOL 544 Genetic Basis of Life Span
BIOL 546 Genetics of Model Systems
BIOL 551 Molecular Biology: Cell Cycle
BIOL 568 Topics on the Human Genome
BIOL 569 Developmental Evolution

BIOL 572 Molecular Evolution
BIOL 575 Human Biochemical Genetics
BIOL 588 Molecular/Cellular Neurobiology

Biomedical Engineering
BMDE 502 Modeling and Identification
BMDE 519 Biomedical Signals & Systems

Biotechnology
BTEC 501 Bioinformatics
BTEC 555 Structural Bioinformatics

Chemistry
All 500 level courses. See Graduate and Postdoctoral Studies Calendar for detailed course listings.

Computer Science
COMP 552 Modeling and Simulating
COMP 526 Probabilistic Reasoning and Artificial Intelligence
COMP 558 Fundamentals of Computer Vision
COMP 563 Molecular Evolution Theory
COMP 564 Computational Gene Regulation
COMP 616D1/2 Bioinformatics Seminar
COMP 618 Bioinformatics: Funct. Genomics
COMP 644 Pattern Recognition
COMP 652 Machine Learning
COMP 680 Mining Biological Sequences

Electrical Engineering
ECSE 502 Control Engineering
ECSE 509 Probability and Random Signaling 2
ECSE 512 Digital Signal Processing 1
ECSE 529 Image Processing and Communication
ECSE 620 Information Theory and Coding
ECSE 626 Statistical Computer Vision

Experimental Medicine
EXMD 502 Advanced Endocrinology I (Fall)
EXMD 503 Advanced Endocrinology II (Winter)
EXMD 504 Biology of Cancer
EXMD 506 Advanced Cardiovascular Physiology
EXMD 507 Advanced Applied Respiratory Physiology
EXMD 508 Advanced Topics in Respiration
EXMD 510 Bioanalytical Separation Methods
EXMD 602 Techniques in Molecular Genetics
EXMD 603 Seminars in Endocrinology
EXMD 604 Recent Advances in Cellular & Molecular Biology
EXMD 607 Molecular Control of Cell Growth
EXMD 608 Molecular Embryology
EXMD 609 Cellular Methods in Medical Research

EXMD 610 Biomedical Methods in Medical Research
EXMD 611 Seminars in Oncology
EXMD 614 Environmental Carcinogenesis
EXMD 615 Membrane Carbohydrates
EXMD 616 Molecular & Cell Biology Topics
EXMD 635 Experimental/Clinical Oncology

Experimental Surgery
EXSU 684 Signal Transduction

Human Genetics
HGEN 660 Genetics, Ethics and Law

Mathematics
MATH 523 Generalized Linear Models
MATH 524 Nonparametric Statistics
MATH 574 Dynamical Systems
MATH 579 Numerical Differential Equations
MATH 586 Applied Partial Differential Equations
MATH 671 Applied Stochastic Processes
MATH 680 Computation Intensive Statistics
MATH 681 Time Series Analysis

Mechanical Engineering
MECH 605 Applied Mathematics I

Neurology & Neurosurgery
NEUR 602 Current Topics in Neuroscience: Topics 1,2,3,6 and 7 only
NEUR 603 Introduction to Computational Neuroscience
NEUR 604 Neuroscience Seminar 3
NEUR 605 Neuroscience Seminar 4
NEUR 630 Principles of Neuroscience 1
NEUR 631 Principles of Neuroscience 2

Pharmacology
PHAR 503 Drug Design and Development I
PHAR 504 Drug Design and Development II
PHAR 562 General Pharmacology I
PHAR 563 General Pharmacology II
PHAR 704 Bioinformatics in Pharmacotherapeutics

Physics
PHYS 559 Advanced Statistical Mechanics
PHYS 612 Advanced Mathematical Physics

Psychiatry
PSYT 500 Advances: Neurobiology of Mental Disorders
PSYT 630 Statistics for Neurosciences

Psychology

PSYC 505 The Psychology of Pain
PSYC 522 Neurochemistry & Behaviour
PSYC 514 Neurobiology of Learning and Memory
PSYC 526 Advances in Visual Perception