# **Appendix C:** List of currently approved elective courses

All courses mentioned in this handbook are approved elective courses independent of the selected track. This table summarizes these courses by department.

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| **DEPARTMENT** | **COURSE #** | **COURSE TITLE** |
| ANATOMY | 6700 | HUMAN HISTOLOGY |
|  |  |  |
| BIOCHEMISTRY | 4511 | INTRODUCTION TO BIOLOGICAL CHEMISTRY |
| BIOCHEMISTRY | 5613 | BIOCHEMISTRY AND MOLECULAR BIOLOGY I |
| BIOCHEMISTRY | 5614 | BIOCHEMISTRY AND MOLECULAR BIOLOGY II |
| BIOCHEMISTRY | 5615 | BIOCHEMISTRY AND MOLECULAR BIOLOGY III |
| BIOCHEMISTRY | 5621 | BIOCHEMISTRY AND MOLECULAR GENETICS LABORATORY |
| BIOCHEMISTRY | 5701 | DNA TRANSACTIONS AND GENE REGULATION |
| BIOCHEMISTRY | 5721 | PHYSICAL BIOCHEMISTRY I - THERMODYNAMICS |
| BIOCHEMISTRY | 5722 | PHYSICAL BIOCHEMISTRY II - KINETICS, DIFFUSION, ETC. |
| BIOCHEMISTRY | 5735 | PLANT BIOCHEMISTRY |
| BIOCHEMISTRY | 6701 | Advanced Biochemistry: Molecular Biology |
| BIOCHEMISTRY | 6706 | Advanced Biological Chemistry Lab |
| BIOCHEMISTRY | 6761 | MACROMOLECULAR STRUCTURE & FUNCTION - NUCLEIC ACIDS |
| BIOCHEMISTRY | 6762 | ENZYMES |
| BIOCHEMISTRY | 6763 | MEMBRANES AND BIOENERGETICS/LIPIDS |
| BIOCHEMISTRY | 6765 | PHYSICAL BIOCHEMISTRY |
| BIOCHEMISTRY | 7770 | PROTEIN ENGINEERING |
| BIOCHEMISTRY | 8821 | ADVANCED ENZYMOLOGY  |
| BIOCHEMISTRY | 8900 | BIOMOLECULAR NMR |
| BIOCHEMISTRY | 8990 | **Advanced Topics in Biochemistry:**  |
|  |  |   |
| BIOMEDICAL ENGINEERING | 5001 | Cardiovascular Bioengineering |
| BIOMEDICAL ENGINEERING | 5110 | BIOMEDICAL MICROSCOPIC IMAGING |
| BIOMEDICAL ENGINEERING | 5186 | INTRODUCTION TO BIOMEDICAL ULTRASOUND |
| BIOMEDICAL ENGINEERING | 5210 | ADVANCED BIOLOGICAL TRANSPORT |
| BIOMEDICAL ENGINEERING | 5352 | SOFT TISSUE BIOMATERIALS  |
|  |  |   |
| BIOPHYSICS | 6702 | ADVANCED EXPERIMENTAL METHODS IN BIOPHYSICS  |
| BIOPHYSICS | 6702 | TOPICS IN BIOPHYSICS - BIOINFORMATICS |
|  |  |   |
| CHEMISTRY | 5420 | ORGANIC SPECTROSCOPY |
| CHEMISTRY | 6510 | QUANTUM MECHANICS AND SPECTROSCOPY |
| CHEMISTRY | 6520 | PHYSICAL CHEMISTRY - THERMODYNAMICS  |
| CHEMISTRY | 6530 | KINETICS |
| CHEMISTRY | 7120 | Electrochemistry |
| CHEMISTRY | 7220 | BIOORGANIC CHEMISTRY OF ENZYMES AND CATALYSIS |
| CHEMISTRY | 7440 | KINETICS, CATALYSIS, AND TRANSITION STATE THEORY |
| CHEMISTRY | 7470 | COMPUTATIONAL CHEMISTRY |
| CHEMISTRY | 7520 | Advanced Molecular Quantum Mechanics and Spectra  |
| CHEMISTRY | 7530 | SPECTRA AND STRUCTURE OF MOLECULES  |
| CHEMISTRY | 7540 | CHEMICAL DYNAMICS  |
| CHEMISTRY | 7550 | STATISTICAL THERMODYNAMICS |
|  |  |   |
| COMPUTER SCIENCE AND ENGINEERING | 3903 | Project: Design, Development, and Documentation of System Software |
| COMPUTER SCIENCE AND ENGINEERING | 5052 |  Survey of Artificial Intelligence for Non-Majors |
| COMPUTER SCIENCE AND ENGINEERING | 5241 | Introduction to Database Systems |
| COMPUTER SCIENCE AND ENGINEERING | 5321 | INTRODUCTION TO FORMAL LANGUAGES AND AUTOMATA |
| COMPUTER SCIENCE AND ENGINEERING | 5331 | Foundations II:  |
| COMPUTER SCIENCE AND ENGINEERING | 5361 | NUMERICAL METHODS |
| COMPUTER SCIENCE AND ENGINEERING | 5542 | Real-Time Rendering |
| COMPUTER SCIENCE AND ENGINEERING | 5543 | GEOMETRIC MODELING |
| COMPUTER SCIENCE AND ENGINEERING | 5545 | Advanced Computer Graphics |
| COMPUTER SCIENCE AND ENGINEERING | 5559 | Intermediate Studies in Computer Graphics |
| COMPUTER SCIENCE AND ENGINEERING | 6321 | COMPUTABILITY AND COMPUTATIONAL COMPLEXITY |
| COMPUTER SCIENCE AND ENGINEERING | 6333 | DISTRIBUTED ALGORITHMS  |
|  |  |   |
| ELECTRICAL & COMPUTER ENGINEERING | 3027 | ELECTRONICS LAB |
| ELECTRICAL & COMPUTER ENGINEERING | 3557 | CONTROL SYSTEMS LABORATORY |
| ELECTRICAL & COMPUTER ENGINEERING | 5011 | Antennas |
| ELECTRICAL & COMPUTER ENGINEERING | 5131 | LASERS |
| ELECTRICAL & COMPUTER ENGINEERING | 5200 | INTRODUCTION TO DIGITAL SIGNAL PROCESSING |
| ELECTRICAL & COMPUTER ENGINEERING | 5206 | Medical Imaging and Processing |
| ELECTRICAL & COMPUTER ENGINEERING | 5460 | DIGITAL IMAGE PROCESSING |
| ELECTRICAL & COMPUTER ENGINEERING | 5551 | State-Space Controls Systems  |
| ELECTRICAL & COMPUTER ENGINEERING | 6010 | ELECTROMAGNETIC FIELD THEORY I |
| ELECTRICAL & COMPUTER ENGINEERING | 7866 | COMPUTER VISION |
|  |  |   |
| HORTICULTURE AND CROP SCIENCE | 7003.02 | AGRICULTURAL GENOMICS: PRINCIPLES AND APPLICATIONS |
|  |  |   |
| BSGP | 7050 | BIOINFORMATICS APPLIED TO HUMAN DISEASE |
| BSGP | 7300 | BIOMEDICAL INFORMATICS I |
| BSGP | 7310 | BIOMEDICAL INFORMATICS II |
|  |  |   |
| MATHEMATICS | 2568 | INTRODUCTORY LINEAR ALGEBRA |
| MATHEMATICS | 5101 | LINEAR MATHEMATICS IN FINITE DEMENSIONS  |
| MATHEMATICS | 8650 | TOPICS IN MATHEMATICAL BIOLOGY  |
|  |  |   |
| MICROBIOLOGY | 4100 | GENERAL MICROBIOLOGY |
| MICROBIOLOGY | 4130 | GENOMICS, PROTEOMICS, MICROBIAL TOPICS |
| MICROBIOLOGY | 5161H | BIOINFORMATICS AND MOLECULAR MICROBIOLOGY |
|  |  |  |
| MOLECULAR GENETICS |  | GENERAL GENETICS  |
| MOLECULAR GENETICS | 5607 | CELL BIOLOGY |
| MOLECULAR GENETICS | 5643 | PLANT ANATOMY  |
| MOLECULAR GENETICS | 5705 | ADVANCES IN CELL BIOLOGY |
| MOLECULAR GENETICS | 5733 | ADVANCED HUMAN GENETICS |
| MOLECULAR GENETICS | 5630 | PLANT PHYSIOLOGY  |
|  |  |  |
| BIOLOGICAL CHEMISTRY AND PHARMACOLOGY | 6761 | ADVANCED BIOCHEMISTRY: PROTEINS AND MACROMOLECULAR STRUCTURES |
| BIOLOGICAL CHEMISTRY AND PHARMACOLOGY | 6762 | ADVANCED BIOCHEMISTRY, ENZYMES |
| BIOLOGICAL CHEMISTRY AND PHARMACOLOGY | 6785 | DNA MICROARRAY TECHNOLOGY |
| BIOLOGICAL CHEMISTRY AND PHARMACOLOGY | 7823 | CONTROL OF CELL GROWTH AND PROLIFERATION |
| BIOLOGICAL CHEMISTRY AND PHARMACOLOGY | 7831 | EUKARYOTIC GENOME: STRUCTURE AND EXPRESSION |
| BIOLOGICAL CHEMISTRY AND PHARMACOLOGY | 7781 | ANIMAL MODELS OF HUMAN DISEASE |
|  |  |   |
| MOLECULAR VIROLOGY, IMMUNOLOGY & MEDICAL GENETICS | 8040 | MASS SPECTOMETRY AND PROTEOMICS ( DO NOT SEE OFFERED)  |
|  |  |   |
| NEUROSCIENCE | 7001 | FOUNDATIONS OF NEUROSCIENCE I - MOLECULAR AND CELLULAR NEUROBIOLOGY AND NEUROPHYSIOLOGY |
| NEUROSCIENCE | 7002 | FOUNDATIONS OF NEUROSCIENCE II |
|  |  |   |
| PHARMACY | 5160 | MEDICAL APPLICATIONS OF RADIONUCLIDES AND RADIOPHARMACEUTICALS  |
| PHARMACY | 7350 | DRUG DISCOVERY AND DRUG DESIGN |
| PHARMACY | 8020 | ADVANCED PHARMACOKINETICS  |
| PHARMACY | 8080 | PHARMACOKINETIC-PHARMACODYNAMIC MODELS |
| PHARMACY | 8380 | ADVANCED MEDICINAL CHEMISTRY: STRUCTURE-BASED COMPUTER-AIDED MOLECULAR DESIGN |
|  |  |   |
| PHYSICS | 4700 | INTRODUCTORY ELECTRONICS FOR PHYSICISTS |
| PHYSICS | 5400 | Intermediate Electricity and Magnetism |
| PHYSICS | 5500 | QUANTUM MECHANICS |
| PHYSICS | 5700 | ADVANCED PHYSICS LAB |
| PHYSICS | 5701 | ELECTRONICS FOR PHYSICISTS |
| PHYSICS | 6809 | TOPICS IN BIOPHYSICS  |
| PHYSICS | 7601 | CLASSICAL AND STATISTICAL PHYSICS I |
| PHYSICS | 7602 | CLASSICAL AND STATISTICAL PHYSICS II |
| PHYSICS | 7603 | ADVANCED STATISTICAL PHYSICS |
| PHYSICS | 7891 | BIOPHYSICS SEMINAR SERIES |
| PHYSICS | 8809.01 | SPECIAL TOPICS IN BIOPHYSICS  |
|  |  |   |
| PHYSIOLOGY AND CELL BIOLOGY | 6101 | ADVANCED HUMAN PHYSIOLOGY I |
| PHYSIOLOGY AND CELL BIOLOGY | 6102 | ADVANCED HUMAN PHYSIOLOGY II |
| PHYSIOLOGY AND CELL BIOLOGY | 7931 | INDIVIDUAL STUDIES |
|  |  |   |
| PLANT PATHOLOGY | 7003.01 | AGRICULTURAL GENOMICS: PRICIPALS AND APPLICATIONS |
|  |  |   |
| PSYCHOLOGY | 7695.08 | BEHAVIORAL NEUROSCIENCE (SURVEY IN BN) |
| PSYCHOLOGY | 7898 | ADVANCED SEMINAR IN BEHAVIORAL NEUROSCIENCE |
|  |  |   |
| RADIOLOGICAL SCIENCES & THERAPY | 4670 | RADIATION BIOLOGY ONLY OFFED AT UGRAD LEVEL) |
| RADIOLOGICAL SCIENCES & THERAPY | 8814 | ADVANCED MAGNETIC RESONANCE IMAGING AND SPECTROSCOPY COULD NOT FIND COURSE  |
|  |  |  |
| STATISTICS | 2480 | STATISTICS FOR THE LIFE SCIENCES  |
| STATISTICS | 3201 | INTRODUCTION TO PROBABILITY FOR DATA ANALYTICS  |
| STATISTICS | 4201 |  INTRODUCTION TO MATHEMATICAL STATISTICS I  |
| STATISTICS | 4202 |  INTRODUCTION TO MATHEMATICAL STATISTICS II |
| STATISTICS | 6201 | MATHEMATICAL STATISTICS |
| STATISTICS | 6410 | DESIGN AND ANALYSIS OF EXPERIMENTS |
| STATISTICS | 6450 | APPLIED REGRESSION ANALYSIS |
|  |  |  |
| VETERINARY BIOSCIENCES | 6640 | FUNDAMENTALS OF ONCOLOGY |
| VETERINARY BIOSCIENCES | 7792 | PROTOTYPICAL CARDIOVASCULAR DISEASE  |
| VETERINARY BIOSCIENCES | 7790 | ELECTROCARDIOGRAPHY |