Approved Electives
Appendix D in MCDB Handbook

**BIOCHEMISTRY (BIOCHEM)**
- BIOCHEM 5613 (3) Biochemistry and Molecular Biology I
- BIOCHEM 5614 (3) Biochemistry and Molecular Biology II
- BIOCHEM 5615 (3) Biochemistry and Molecular Biology I
- BIOCHEM 6706 (4) Advanced Biological Chemistry Lab
- BIOCHEM 6762 (1.5) Advanced Biochemistry: Enzymes* (cross listed in BIOPHRM)
- BIOCHEM 6763 (1.5) Advanced Biochemistry: Membranes and Lipids (cross listed in BIOPHRM)
- BIOCHEM 6765.01 (1.5) Advanced Biochemistry: Physical Biochemistry
- BIOCHEM 7766.01 (1.5) Advanced Biochemistry: Nucleic Acids
- BIOCHEM 7770 (2) Advanced Biochemistry: Protein Engineering
- BIOCHEM 7775 (2) Biophysical Chemistry
- BIOCHEM 8821 (2) Advanced Enzymology
- BIOCHEM 8900 (2) Advanced Biochemistry: Biomolecular NMR

**BIOMEDICAL INFORMATICS (BMI)**
- BMI 5730 (3) Introduction to Biomedical Informatics
- BMI 8050.01 (3) Topics in BMI-DS
- BMI 5750 (3) Methods in Biomedical Informatics

**HORTICULTURE AND CROP SCIENCE (HCS)**
- HCS 7003 (3) Agricultural Genomics (cross listed in PLNTPTH)
- HCS 8825 (3) Advanced Plant Breeding

**MICROBIOLOGY (MICRBIO)**
- MICRBIO 5122 (2) Immunology
- MICRBIO 5129 (3) Cellular and Molecular Biology of Pathogenic Eukaryotes
- MICRBIO 5147 (3) Eukaryotic Pathogens
- MICRBIO 5149 (3) Introductory Virology
- MICRBIO 6010 (2) Principles of Microbiology
- MICRBIO 6020 (3) Microbial Physiology and Biochemistry
- MICRBIO 6080 (3) Advanced Microbial Genetics
- MICRBIO 7010 (3) Cellular and Molecular Immunology
- MICRBIO 7020 (2) Physiology Meets Pathogenesis
- MICRBIO 7023 (3) Molecular Immunology Lecture
- MICRBIO 7050 (3) Fermentation Biotechnology
- MICRBIO 7724 (3) Molecular Pathogenesis
- MICRBIO 8050 (2) The RNA World
CHEMISTRY AND PHARMACOLOGY (BIOPHRM)

- BIOPHRM 5300 (2) Molecular Pharmacology
- BIOPHRM 5733 (2) Human Genetics (cross listed in MOLGEN)
- BIOPHRM 6762 (1.5) Advanced Biochemistry: Enzymes (cross listed in BIOCHEM)
- BIOPHRM 6763 (1.5) Advanced Biochemistry: Membranes and Lipids* (cross listed in BIOCHEM)
- BIOPHRM 7806 (2) Gene Expression: Transcriptional Control (cross listed in MOLGEN)
- BIOPHRM 7807 (3) Gene Expression: Post-Transcriptional Control (cross listed in MOLGEN and VBS)
- BIOPHRM 7823 (2) Control of Cell Growth and Proliferation
- BIOPHRM 7828 (2) Signaling Pathways and Human Disease
- BIOPHRM 7831 (2) Eukaryotic Genome: Structure and Expression (cross listed in MOLGEN and CBG)

MOLECULAR GENETICS (MOLGEN)

- MOLGEN 5300 (2) Cancer Genetics
- MOLGEN 5601 (3-4) Eukaryotic Molecular Genetics Lab (Permission of Program Director required)
- MOLGEN 5623 (2) Genetics and Genomics
- MOLGEN 5630 (3) Plant Physiology
- MOLGEN 5632 (2) Insect Molecular Genetics
- MOLGEN 5643 (3) Plant Anatomy
- MOLGEN 5645 (2) Quantitative, Population, and Evolutionary Genetics
- MOLGEN 5650 (3) Analysis and Interpretation of Biological Data
- MOLGEN 5700 (3) Systems of Genetic Analysis
- MOLGEN 5733 (2) Human Genetics (cross listed in BIOPHRM)
- MOLGEN 5735 (3) Plant Biochemistry (cross listed in BIOCHEM)
- MOLGEN 6625 (2) Plant Metabolic Engineering
- MOLGEN 6725 (2) Circadian Biology
- MOLGEN 6741 (2) Reproductive Biology of Flowering Plants
- MOLGEN 7741 (5) Molecular Biology and Pathogenesis of Viruses (cross-listed in CBG and VETBIOS)
- MOLGEN 7806 (2) Gene Expression: Transcriptional Control (cross listed in BIOPHRM)
- MOLGEN 7807 (3) Gene Expression: Post-Transcriptional Control (cross listed in BIOPHRM and VETBIOS)
CANCER BIOLOGY AND GENETICS (CBG)
- CBG 5000 (2) Evolution of Emerging Viruses
- CBG 7010 (3) Cellular and Molecular Immunology
- CBG 7470 (2) Fundamentals of Muscle Biology
- CBG 7741 (5) Molecular Biology and Pathogenesis of Viruses (cross listed in MOLGEN and VETBIOS)
- CBG 8040 (3) Mass Spectrometry and Proteomics
- CBG 8270 (2) Biochemical Mechanisms of Carcinogenesis
- CBG 8740 (3) Advanced Topics in Molecular Biology of DNA Repair

NEUROSCIENCE (NEUROSC)
- NEUROSC 7001 (6) Foundations of Neuroscience I
- NEUROSC 7050 (3) Neurobiology of Disease
- NEUROSC 7500 (2) Neuroimmunology
- NEUROSC 7900 (2) Developmental Neurobiology

NEUROLOGICAL SURGERY (NEURSGY)
- NEURSGY 8250 (2) Biology of the Tumor Microenvironment

PATHOLOGY (PATHOL)
- PATHOL 6640 (4) Fundamental of Oncology (cross listed in VETBIOS)
- PATHOL 6670 (3) Medical Cytogenetics

PHARMACY (PHR)
- PHR 8194 (2) Introduction to the Structure, Analyses and Interpretation of Genomic Data Studies
- PHR 8350 (2) Advanced Medicinal Chemistry I
- PHR 8360 (2) Advanced Medicinal Chemistry II

PHYSIOLOGY AND CELL BIOLOGY (PHYSIO)
- PHYSIO 8101 (3) Advanced Cardiac Physiology

PLANT PATHOLOGY (PLNTPTH)
- PLNTPTH 7003 (3) Agricultural Genomics (cross listed in HCS)
- PLNTPTH 8400 (3) Molecular Bases of Host-Microbe Interactions

STATISTICS (STAT)
- STAT 5301 (4) Intermediate Data Analysis I
- STAT 5302 (3) Intermediate Data Analysis II

VETERINARY BIOSCIENCES (VETBIOS)
- VETBIOS 6640 (4) Fundamentals of Oncology (cross listed in Pathology)
- VETBIOS 7741 (5) Molecular Biology and Pathogenesis of Viruses (cross listed in MOLGEN and CBG)
- VETBIOS 7807 (3) Gene Expression: Post-Transcriptional Control (cross listed in MOLGEN and BIOPHRM)