

## **Graduate Minor in Genetics 01-17-2023**

1) Selecting a Genetics minor advisor: A faculty member whose primary affiliation is with the Department of Biology, and who has expertise in Genetics, must join the student's Advisory Committee and must participate in designating required course work. This minor advisor will determine whether courses meet the minor requirement in accordance with the rules set out in the program.

(2) Number of credits: A Genetics minor requires a minimum of 6 credits of graduate courses. The Genetics minor may be fulfilled from any of the courses beginning on page 2. A course may not simultaneously satisfy both major and minor course requirements. Course offerings not on the list below can be used to satisfy the Genetics minor only if prior approval is obtained from the minor advisor, the GCDB Graduate Program Director and the Graduate School. In addition to preliminary emails, official approval requires routing a "Request for Substitution or Waiver of Program Requirements" edoc that can be found on One IU.

(3) Grades: An overall average of B- (2.7) or better is required in a course to be counted towards the Genetics minor.

(4) Transferring in credit for the Genetics minor: A student may apply courses taken for a MS degree at another university if the transfer is approved by the student's advisory committee, the minor advisor, the GCDB program director, and the Graduate School.

## **Course Listings for Genetics Minor<sup>1</sup>**

BIOC-B512 Biochemical mechanisms of DNA repair (1.5cr)  
BIOC-B513 Cell response to DNA damage (1.5cr)  
BIOC-B680 Molecular Mechanisms of Cancer (1.5 cr)  
BIOL-L511 Advanced Gene Regulation (3cr)  
BIOL-L533 Evolution of Genes and Genomes (3cr)  
BIOL-L567 Evolution (3cr)  
BIOL-L568 Evolutionary Genetics (3cr)  
BIOL-L585 Genetics (3cr)<sup>2</sup>  
BIOL-L586 Cell Biology (3cr)<sup>2</sup>  
BIOL-L587 Developmental Biology (3cr)<sup>2</sup>  
BIOL-M511 Molecular Biology of Prokaryotes (3cr)  
BIOL-M541 Virology and Host Responses (3cr)  
BIOL-M585 Microbial Genetics and Pathogenesis (3cr)  
BIOT-T 508 Theory and Applications of Biotechnology Lecture  
BIOT T 525 Protein expression, purification, and characterization lab  
BIOL-Z562 Genetics of Behavior (1.5cr)  
BIOL-Z 620 Advances in Drosophila Genetic Research  
BIOL-Z 620 Advanced Topics in Genome, Cellular, and Developmental Biology  
BIOL-Z620 Bioinformatics-2-Go (1.5 cr)  
BIOL-Z620 Biological Electron Microscopy (1.5cr)  
BIOL-Z620 Cell Biology Journal Class<sup>3</sup>  
BIOL-Z620 Chromosome and Genome Biology Journal Class<sup>3</sup>  
BIOL-Z620 CyberInfrastructure-enabled Computational Genome Science (3cr)  
BIOL-Z620 Digital Imaging and Light Microscopy (1.5cr)  
BIOL-Z620 Ecological Plant Physiology  
BIOL-Z 620 Entomology  
BIOL-Z620 Evolution of Proteins and Cells (3cr)  
BIOL-Z620 Evolution (3cr)  
BIOL-Z620 Genetics of Human Metabolic Disease (3cr)  
BIOL-Z620 Growth and Metabolism Journal Club

BIOL-Z620 Genomics and Eco-Evolution of Multi-Scale Symbioses  
BIOL-Z620 Host-Microbe Interactions  
BIOL-Z620 Introduction to Genomics and Bioinformatics (1.5cr)  
BIOL-Z620 Introduction to Computational Data Processing in Biology (1.5cr)  
BIOL-Z620 Introduction to Computational Workflow Design in Biology (1.5cr)  
BIOL-Z620 The Legacy of Drosophila (3cr)  
BIOL-Z 620 Mechanisms of Symbiosis  
BIOL-Z620 Methods in Epigenomics  
BIOL-Z620 Microbial Genetics and Techniques (1.5cr)  
BIOL-Z620 Phylogenetics (3cr)  
BIOL-Z620 Recent advances in genetics and cell biology (3cr)  
BIOL-Z620 Transcription, Epigenetics, and Human Disease  
BIOL-Z620 Quantitative Thinking and Python Programming  
INFO-I519 Introduction to Bioinformatics (3cr)  
INFO-I590 SNP Discovery and Population Genetics (3cr)  
BIOL- M550 Microbiology  
MSCI-M509 Scientific Communication  
MSCI-M550 Seminar in Cancer Biology  
MSCI-M580 Molecular Biology of Cancer (3cr)  
PHSL-P550 Physiology of Cancer Journal Class<sup>3</sup>  
PSY-P467 Diseases of the Nervous System (3cr)  
PSY-P526 Neurobiology of Learning and Memory (3cr)  
PSY-P566 Molecular and Cellular Neurobiology (3cr)

<sup>1</sup>Or an equivalent course at IU or graduate work transferred from another university with approval of the GCDB Graduate Program Director

<sup>2</sup>GCDB students cannot use these courses for the Genetics minor due to overlap with major degree requirements.

<sup>3</sup>The same journal class cannot be taken twice to fulfill the major and minor. However, different journal classes can be taken for the major and minor.