

Genetics, Genomics, & Bioinformatics Track

Choose 12 credit hours from the following list of courses:

Courses	Prerequisites	Semesters offered
*BIO 380 (1-4) Special Topics in Biology (Intermediate Level)	Determined by Instructor.	TBD
BIO 308 (3) Microbiology	BIO 304 OR ABT 360 OR ENT 360 AND CHE 230 OR CHE 236.	Fall/Spring
BIO 309 (2) Microbiology Lab	BIO 304 OR ABT 360 OR ENT 360 AND CHE 230 OR CHE 236.	Fall/Spring
BIO 337 (3) Mathematical Modeling in the Life Sciences	A grade of B or better in MA 114 (Calculus II) or MA 138 (Calculus II with Life Science Applications) or consent of department.	Spring
BIO 394/395/397 (1-3) Research in Neuroscience/Biology/Microbiology (max 3 credit hours toward track)	BIO 152 and BIO 302 or PSY 312 / BIO 148, BIO 152 and BIO 155 or equivalent. Completion of at least one of the Biology core courses (Cell Biology, Evolution, Genetics, Physiology, Ecology) is strongly recommended / BIO 308 and BIO 309.	Fall/Summer/Spring
BIO 404 (3) Advanced Genetics	BIO 304 (Introductory Genetics) or equivalent or consent of the instructor is required. BIO 315 (Cell Biology) or equivalent is recommended, but not required.	Sometimes Spring
BIO 405 (3) Human Genetics	Grade of C or better in BIO 304 or permission of instructor.	Sometimes Spring
BIO 429 (3) Developmental Biology	BIO 304 or equivalent, or graduate standing in life sciences, or consent of instructor.	Fall/Spring
BIO 445 (3) Biology of Sex	Determined by Instructor.	Sometimes Spring
BIO 461 (3) Population Genetics	ABT 360 (or equivalent) and one course in probability/statistics.	Spring
BIO 508 (3) Advanced Evolution	BIO 304 or ASC/AGR 360.	
BIO 510 (4) Recombinant DNA Techniques Lab	BIO 304 and BIO 315 or equivalent with consent of instructor.	Fall
BIO 418 (3) Ecological Genetics	The prerequisite course is BIO 303 and BIO 304, or consent of instructor.	Fall

BIO 520 (3) Bioinformatics	BIO 315 or BIO 304 or BCH 304 or BCH 401 or instructor. BCH 501 or BCH 502 or BIO 510 or consent of instructor.	Fall
BIO 527 (3) Stem Cells, Tissue Engineering, and Regenerative Medicine	BIO 315 and BIO 304.	

***Subtitle must be approved by Director of Undergraduate Studies**

Courses from outside the Biology Department:

Courses	Prerequisites	Semesters offered
STA 570 (4) Basic Statistical Analysis	MA 109 or equiv. for graduate students; undergraduates must have consent of instructor.	Fall/Spring
STA 580 (3) Biostatistics I	MA 109 or equivalent.	Fall/Spring
ABT/AGR/ASC/ENT 460 (3) Introduction to Molecular Genetics	ABT/ENT 360 or BIO 304 or consent of instructor.	Spring
PGY 417 (2) Genomics and Epigenetics	A course in Cell Biology or Molecular Biology.	Spring

**** Other courses can be accepted by the Director of Undergraduate Studies in Biology on a case by case basis.**