

COMMITTEE ON GENETICS, GENOMICS & SYSTEMS BIOLOGY - SUGGESTED EMPIRICAL STUDENT TRACKS

	AUTUMN QUARTER		WINTER QUARTER		SPRING QUARTER	
		Course #		Course #		Course #
MODEL SYSTEMS	Genetic Analysis of Model Organisms	MGCB 31400	Molecular Biology I	MGCB 31200	Genomics and Systems Biology	HGEN 47300
	Cell Biology I	ECEV 44000	Fundamentals of Molecular Evolution	ECEV 44000	Molecular Biology II	MGCB 31300
	Advanced Developmental Biology	MGCB 31600	Cell Biology II	MGCB 31700	Human Variation and Disease	HGEN 46900
	Human Genetics I	DVBI 35400	Dev. Gene of Non-Vertebrate Model Systems	DVBI 35500	Vertebrate Developmental Genetics	DVBI 35600
	Nucleic Acid Structure	HGEN 4700			Genetic Mechanisms	MGCB 31500
	Introduction to Probability and Statistics for Geneticists	BCMB 30600 HGEN 47400				
POPULATION GENETICS	Genetic Analysis of Model Organisms	MGCB 31400	Molecular Biology I	MGCB 31200	Genomics and Systems Biology	HGEN 47300
	Cell Biology I	MGCB 31600	Fundamentals of Molecular Evolution	ECEV 44000	Human Variation & Disease	HGEN 46900
	Statistical Methods & Their Applications	STAT 22000	Statistical Methods & Applications	STAT 22000	Principles of Population Genetics I	ECEV 35600
	Statistical Theory & Methods I	STAT 24400	Statistical Theory & Methods II	STAT 24500	Evolutionary Genomics	ECEV 35901
	Introduction to Probability and Statistics for Geneticists	HGEN 47400				
HUMAN GENETICS	Genetic Analysis of Model Organisms	MGCB 31400	Molecular Biology I	MGCB 31200	Genomics and Systems Biology	HGEN 47300
	Human Genetics	HGEN 47000	Fundamentals of Molecular Evolution	ECEV 44000	Molecular Biology II	MGCB 31300
	Statistical Methods & Their Applications	STAT 22000	Introductory Statistical Genetics	HGEN 47100	Principles of Population Genetics I	ECEV 35600
	Statistical Theory & Methods I	STAT 24400	Statistical Methods & Applications	STAT 22000	Human Variation & Disease	HGEN 36900
	Introduction to Probability and Statistics for Geneticists	HGEN 47400	Statistical Theory & Methods II	STAT 24500	Statistical Genetics	STAT 35500
DEVELOPMENTAL GENETICS	Genetic Analysis of Model Organisms	MGCB 31400	Molecular Biology I	MGCB 31200	Genomics and Systems Biology	HGEN 47300
	Advanced Developmental Biology	DVBI 35400	Fundamentals of Molecular Evolution	ECEV 44000	Molecular Biology II	MGCB 31300
	Cell Biology I	MGCB 31600	Dev. Gene of Non-Vertebrate Model Systems	DVBI 35500	Human Variation & Disease	HGEN 46900
	Introduction to Probability and Statistics for Geneticists	HGEN 47400			Vertebrate Developmental Genetics	DVBI 35600
	Evolutionary Aspects of Gene Regulation	ECEV 32500				
GENOMICS & SYSTEMS BIOLOGY	Genetic Analysis of Model Organisms	MGCB 31400	Molecular Biology I	MGCB 31200	Genomics and Systems Biology	HGEN 47300
	Fundamentals of Molecular Evolution	ECEV 44000	Topics in Bioinformatics	CMSC 37701B	Human Variation & Disease	HGEN 46900
	Topics in Bioinformatics	CMSC 37701A			Principles of Population Genetics I	ECEV 35600
	Computational Systems Biology	CMSC 37720			Evolutionary Genomics	ECEV 35901
	Introduction to Probability and Statistics for Geneticists	HGEN 47400			Systems Biology II	BIOS 28401
				Systems Biology, Self-Assembly & Complexity	CPHY 35000	

THE ABOVE COURSE TRACK IS SUGGESTED. THE COMMITTEE ON GENETICS ENCOURAGES ALL STUDENTS TO EXPLORE OTHER AREAS OF INTEREST AS WELL.

TO SATISFY THE COURSE REQUIREMENTS FOR THE COMMITTEE ON GENETICS, STUDENTS ARE TO TAKE:

4 REQUIRED COURSES, 4 ELECTIVES, AND 2 GRADED LAB ROTATIONS FOR ½ CREDIT EACH, TOTALING 9 GRADED COURSES.

ROTATIONS ARE DONE IN THE WINTER OR SPRING (10 WEEKS) AND SUMMER (5 WEEKS). AN OPTIONAL THIRD ROTATIONS (5 WEEKS) MAY BE DONE IN THE SUMMER

REQUIRED RED BOLDED COURSES FOR THE DEGREE ARE AS FOLLOWS:

Genetic Analysis of Model Organisms	MGCB 31400 (Autumn)
Genomics and Systems Biology	HGEN 47300 (Spring)
Molecular Biology I OR Molecular Biology II	MGCB 31200 (Winter) OR MGCB 31300 (Spring)

SUGGESTED ELECTIVES FROM WHICH TO CHOOSE

CHOOSE 1 OF THE FOLLOWING BLUE ITALICIZED COURSES BELOW TO SATISFY THE FINAL COURSE REQUIREMENT FOR THE DEGREE:

Fundamentals of Molecular Evolution	ECEV 44000 (Winter)
Principles of Population Genetics I	ECEV 35600 (Spring)
Human Variation & Disease	HGEN 46900 (Spring)
Evolutionary Genomics	ECEV 35901 (Spring every other year)