

Matrix Planned Biology Courses For 2019 - 2020 (tentative)

Category	Autumn 2019	Winter 2020	Spring 2020
Foundation Courses	BIOL 350 (3) - Foundations in Physiology BIOL 355 (3) - Foundations in Molec Cell Biology	BIOL 350 (3) - Foundations in Physiology BIOL 354 (3) - Foundations in Evol & Systematics BIOL 355 (3) - Foundations in Molec Cell Biology <u>BIOL 356 (3) - Foundations in Ecology</u>	BIOL 350 (3) - Foundations in Physiology BIOL 354 (3) - Foundations in Evol & Systematics BIOL 355 (3) - Foundations in Molec Cell Biology
Natural History / Biodiversity Course *	BIOL 280 (4) - History of Life <u>BIOL 438 (5) - Quant. Approaches to Paleobio</u> BIOL 441 (5) - Trends in Land Plant Evolution <u>BIOL 444 (5) - Orinthology</u>	<u>BIOL 433 (5) - Marine Ecology</u> <u>BIOL 434 (5) - Invertebrate Zoology</u> <u>BIOL 450 (5) - Vertebrate Paleontology</u> <u>BIOL 451 (5) - Invertebrate Paleontology</u> <u>BIOL 453 (5) - Comp Anatomy of Vertebrates *</u>	<u>BIOL 311 (3/5) - Biology of Fishes</u> <u>BIOL 317 (5) - Plant ID & Classification</u> BIOL 331 (3) - Landscape Plant Recognition <u>BIOL 440 (5) - General Mycology</u>
Molecular Cell Developmental Biology Courses	<u>BIOL 302 (4) - Lab Techniques in Cell& Molec Bio</u> BIOL 411 (4) - Developmental Biology BIOL 416 (3) - Development of Plant Genetics BIOL 431 (1) - Cannabinoids, Plant and Human BIOL 464 (2) - Molecular Mechanisms of Cancer Seminar BIOL 485 (2) - Senior Seminars in MCD	<u>BIOL 302 (4) - Lab Techniques in Cell& Molec Bio</u> <u>BIOL 407 (4) - Molecular Cell Biology of Neural Stem Cells</u> <u>BIOL 413 (4) - Molec Genetics of Development</u> BIOL 415 (3) - Evolution and Development BIOL 431 (1) - Cannabinoids, Plant and Human BIOL 459 (3) - Developmental Neurobiology BIOL 485 (2) - Senior Seminars in MCD BIOL 495 (2) - Biology of Fermentation	<u>BIOL 302 (4) - Lab Techniques in Cell& Molec Bio</u> <u>BIOL 400 (4) - Experiments in Molecular Bio.</u> BIOL 401 (3) - Advanced Cell Biology <u>BIOL 402 (4) - Functional Genomics</u> BIOL 405 (3) - Cell & Molec Biol of Human Disease BIOL 410 (2) - Current Topics in Molec. & Cell Biol BIOL 411 (4) - Developmental Biology BIOL 485 (2) - Senior Seminars in MCD
Physiology Courses *	<u>BIOL 310 (5) - Survey of Human Anatomy</u> <u>BIOL 427 (5) - Biomechanics</u> BIOL 465 (3) - Comparative Endocrinology BIOL 468 (3) - Medical Physiology	<u>BIOL/ESRM 424/478 (5) - Plant Eco-Physiology</u> <u>BIOL 425 (5) - Plant Physiology and Development</u> <u>BIOL 453 (5) - Comp Anatomy of Vertebrates *</u> BIOL 455 (4) - Human Immuno & Patho BIOL 457 (3) - Chemical Communication BIOL 461 (3) - Neurobiology BIOL 465 (3) - Comparative Endocrinology BIOL 468 (3) - Medical Physiology	<u>BIOL 310 (5) - Survey of Human Anatomy</u> BIOL 417 (4) - Reproductive Physio BIOL 422 (3) - Behavior of Plants <u>BIOL 428 (4) - Sensorv Neurophys and Ecol</u> BIOL 467 (3) - Comparative Animal Physiology
Ecology, Evolution, Systematics, and Conservation Courses	BIOL 315 (3) - Biol. Impacts of Climate Change <u>BIOL 447 (5) - Greening the Earth</u> <u>BIOL/FISH 473/474 (3/2) - Limnology & Lab</u> <u>BIOL 481 (5) - Experimental Ecology & Evolution</u> BIOL 483 (1) - Senior Seminar in Paleobiology	BIOL 423 (3) - Marine Ecological Processes <u>BIOL 433 (5) - Marine Ecology</u> BIOL 483 (1) - Senior Seminar in Paleobiology BIOL 486 (2) - Senior Seminar in Ecology	BIOL 315 (3) - Biol. Impacts of Climate Change BIOL 469 (3) - Evolution and Medicine BIOL 470 (4) - Biogeography <u>BIOL 480 (4) - Field Ecology</u> BIOL 483 (1) - Senior Seminar in Paleobiology
Counts for all degrees	BIOL 396 (1-4) - Peer Facilitation BIOL 399 (vary) - Internship	BIOL 396 (1-4) - Peer Facilitation BIOL 399 (vary) - Internship BIOL 419 (3) - Data Science for Biologists	BIOL 305 (3) - Video Storytelling BIOL 359 (3) - Quantitative Biology BIOL 396 (1-4) - Peer Facilitation BIOL 399 (vary) - Internship BIOL 492 (3) - Teaching Biology Inclusively
Special Topics	BIOL 490 (2) - Senior Seminar w/Ammirati	BIOL 489 (2) - Plant Seminar	BIOL 494 (3) - Controversies in Biology

18-Jun-19

Underlined courses indicate a lab class

* may count for only one area requirement - Natural history or adv electives

Selected Additional Courses For 2019 - 2020¹ (tentative)

Category	Autumn 2019	Winter 2020	Spring 2020
Genetics	FISH/BIOL 340 (5) - Genetics & Molecular Ecol GENOME 361 (3) - Fundamentals of Genetics GENOME 371 (5) - Intro Genetics	GENOME 361 (3) - Fundamentals of Genetics GENOME 361 (3) - Fundamentals of Genetics	FISH/BIOL 340 (5) - Genetics & Molecular Ecol GENOME 361 (3) - Fundamentals of Genetics
Math and Stats	Q SCI 291 (5) - Calculus for Biologists I Q SCI 482 (5) - Stat Infer in Appl Research	Q SCI 291 (5) - Calculus for Biologists Q SCI 292 (5) - Calculus for Biologists II Q SCI 482 (5) - Stat Infer in Appl Research	Q SCI 292 (5) - Calculus for Biologists II
Natural History / Biodiversity Course	ESRM 452 (3) - Field Ornithology ESRM 456 (3) - Biol & Cons of Birds FISH 450 (3) - Salmonid Beh & Life Hist		ESRM 435 (3) - Insect Ecology ESRM 453 (3) - Biology and Conservation of Mammals FISH 475 (5) - Marine Mammalogy
General Biology Electives	BH 402 (5) - Ethical Theory MICROM 301/302L (3/2) - Intro to Microbio/Lab	BH 444 (3) - Ethical Implications of Emerging Biotech	BH 420 (3) -Philosophical Problems in Bioethics BH 421 (5) - History of Eugenics GWSS/ PSYCH 357 (5) - Psychobiology of Women MICROM 301/302L (3/2) - Intro to Microbio/Lab
Molecular Cell Developmental Biology Courses	BIOC 405 (3) - Survey in Biochemistry BIOC 440 (4) - Biochemistry BIOC 446L (4) - Biochemistry Lab GENOME 372 (5) - Genomics and Proteomics IMMUNO 441 (4) - Intro to Immunology MICROM 402L (3) - Fund of Gen Micro Lab MICROM 410 (3) - Fund of Gen Micro	BIOC 405 (3) - Survey in Biochemistry BIOC 406 (3) - Survey in Biochemistry BIOC 441 (4) - Biochemistry GENOME 465 (4) - Adv Human Genetics GENOME 466 (4) - Cancer Genetics MICROM 431L (3) - Prok. Recomb DNA Tech MICROM 442 (3) - Medical Bacteriology MICROM 450 (3) - Molecular Bio of Viruses	BIOC 406 (3) - Survey in Biochemistry BIOC 442 (4) - Biochemistry BIOC 446L (4) - Biochemistry Lab GENOME 373 (5) - Genome Informatics GENOME 475 (3) - Debates in Genetics MICROM 402L (3) - Fund of Gen Micro Lab MICROM 412 (3) - Prokaryotic Diversity MICROM 445 (3) - Medical Virology MICROM 460 (3) - Med. Mycology & Parasitology
Physiology Courses		FISH 324 (3/5L) - Aquatic Physiology and Repro	FISH 441 (3/5L) - Environmental Physiology
Ecology, Evolution, Systematics, and Conservation Courses	ESRM 250 (5) - Intro to GIS ESRM 350 (5) - Wildlife Biology & Cons. ESRM/ENVIR 362 (5) - Intro to Rest Ecol ESRM 441 (5) - Landscape Ecology ESRM 465 (3) - Econ of Conservation ESRM 470 (5) - Natural Res Policy & Planning GEOG 360 (5) - Principles of GIS Mapping	ESRM 400 (3) - Natural Resource Conflict Mgmt ESRM 430 (3) - Hyperspatial Remote Sensing ESRM 450 (5) - Wildlife Ecology & Cons. ESRM 457 (3/5) - Fish and Wildlife Toxicology ESRM 458 (5) - Mgmt of Thrt, Endgd, Sens Sp FISH 444 (5) - Conservation Genetics PSYCH 300 (5) - Animal Behavior	ESRM 250 (5) - Intro to GIS ESRM 459 (3) -Wildlife Cons. in NW Ecosystems FISH 330 (5) - Climate Change Imp. on Marine Systems FISH 404 (5) -Diseases of Aquatic Animals GEOG 360 (5) - Principles of GIS Mapping PSYCH 419 (5) - Behavioral Stds of Zoo Animals
Plant Biology	ESRM 415 (5) - Terrestrial Invasion Ecology	ESRM 404 (5) - Plant Microbiology	ESRM 411 (3) - Plant Propagation: Princ. & Practice ESRM 412 (3) - Native Plant Production

18-Jun-19

¹ **CAUTION** - Not all courses here have been approved for all specific degree options. It is the student's responsibility to determine if a course has been approved, if not then a petition must be submitted. Please refer to an advisor for further clarification.