

Matrix Planned Biology Courses For 2018 - 2019 (tentative)

Category	Autumn 2018	Winter 2019	Spring 2019
Foundation Courses	BIOL 350 (3) - Foundations in Physiology BIOL 354 (3) - Foundations in Evol & Systematics BIOL 355 (3) - Foundations in Molec Cell Biology <u>BIOL 356</u> (3) - Foundations in Ecology	BIOL 350 (3) - Foundations in Physiology BIOL 355 (3) - Foundations in Molec Cell Biology <u>BIOL 356</u> (3) - Foundations in Ecology	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 *	<u>BIOL 438</u> (5) - Quant. Approaches to Paleobio <u>BIOL 441</u> (5) - Trends in Land Plant Evolution <u>BIOL 453</u> (5) - Comp Anatomy of Vertebrates *	<u>BIOL 311</u> (3/5) - Biology of Fishes <u>BIOL 434</u> (5) - Invertebrate Zoology <u>BIOL 453</u> (5) - Comp Anatomy of Vertebrates *	<u>BIOL 317</u> (5) - Plant ID & Classification BIOL 331 (3) - Landscape Plant Recognition <u>BIOL 434</u> (5) - Invertebrate Zoology <u>BIOL 437</u> (5) - Herpetology BIOL 440 (5) - General Mycology <u>BIOL 443</u> (5) - Evolution of Mammals and their Anc. <u>BIOL 444</u> (5) - Ornithology <u>BIOL 451</u> (5) - Invertebrate Paleontology <u>BIOL 452</u> (5) - Vertebrate Biology *
Molecular Cell Developmental Biology Courses	<u>BIOL 302</u> (4) - Lab Techniques in Cell& Molec Bio <u>BIOL 400</u> (4) - Experiments in Molecular Biology BIOL 411 (4) - Developmental Biology BIOL 431 (1) - Cannabinoids, Plant and Human BIOL 455 (4) - Human Immunology and Pathology BIOL 485 (2) - Senior Seminars in MCD	<u>BIOL 302</u> (4) - Lab Techniques in Cell& Molec Bio BIOL 401 (3) - Advanced Cell Biology <u>BIOL 413</u> (4) - Molec Genetics of Development BIOL 417 (4) - Comp Reprod Phys of Vertebrates BIOL 455 (4) - Human Immunology and Pathology BIOL 459 (3) - Developmental Neurobiology BIOL 485 (1-2) - Senior Seminars in MCD <u>BIOL 495</u> (2) - Biology of Fermentation	<u>BIOL 402</u> (4) - Functional Genomics BIOL 405 (3) - Cell & Molec Biol of Human Disease BIOL 411 (4) - Developmental Biology BIOL 416 (3) - Development of Plant Genetics BIOL 485 (1-2) - Senior Seminars in MCD BIOL 497 (4) - Making a Mutant
Physiology Courses *	<u>BIOL 310</u> (5) - Survey of Human Anatomy BIOL 404 (3) - Animal Physiology: Cell Aspects <u>BIOL 427</u> (5) - Biomechanics <u>BIOL 453</u> (5) - Comp Anatomy of Vertebrates * BIOL 465 (3) - Comparative Endocrinology BIOL 466 (3) - Pathobiology of Emerging Diseases BIOL 468 (3) - Medical Physiology	<u>BIOL/ESRM 408</u> (4) - Neuroethology <u>BIOL/ESRM 424/478</u> (5) - Plant Eco-Physiology <u>BIOL 425</u> (5) - Plant Physiology and Development <u>BIOL 453</u> (5) - Comp Anatomy of Vertebrates * BIOL 460 (3) - Mammalian Physiology BIOL 461 (3) - Neurobiology BIOL 466 (3) - Pathobiology of Emerging Diseases	<u>BIOL 310</u> (5) - Survey of Human Anatomy <u>BIOL 360</u> (4) - Cell Anatomy BIOL 418 (4) - Biological Clocks and Rhythms <u>BIOL 421</u> (4) - Eco and Evo Phys of Animals BIOL 422 (3) - Behavior of Plants <u>BIOL 452</u> (5) - Vertebrate Biology * BIOL 462 (3) - Adv Animal Physiology <u>BIOL 463</u> (3) - Adv Animal Physiology Lab BIOL 467 (3) - Comparative Animal Physiology
Ecology, Evolution, Systematics, and Conservation Courses	BIOL 315 (3) - Biol. Impacts of Climate Change BIOL 423 (3) - Marine Ecological Processes <u>BIOL 433</u> (5) - Marine Ecology <u>BIOL/FISH 473/474</u> (3/2) - Limnology & Lab BIOL 483 (1) - Senior Seminar in Paleobiology	BIOL 423 (3) - Marine Ecological Processes 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 <u>BIOL 472</u> (5) - Community Ecology <u>BIOL 480</u> (4) - Field Ecology 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 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	

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Underlined courses indicate a lab class

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

Selected Additional Courses For 2018 - 2019¹ (tentative)

Category	Autumn 2018	Winter 2019	Spring 2019
Genetics and Mathematics	BIOST 310 (4) - Biostats for the Health Sciences FISH/BIOL 340 (5) - Genetics & Molecular Ecol GENOME 361 (3) - Fundamentals of Genetics GENOME 371 (5) - Intro Genetics Q SCI 291 (5) - Calculus for Biologists I Q SCI 482 (5) - Stat Infer in Appl Research	BIOST 310 (4) - Biostats for the Health Sciences GENOME 361 (3) - Fundamentals of Genetics Q SCI 291 (5) - Calculus for Biologists Q SCI 292 (5) - Calculus for Biologists II Q SCI 482 (5) - Stat Infer in Appl Research	BIOST 310 (4) - Biostats for the Health Sciences FISH/BIOL 340 (5) - Genetics & Molecular Ecol GENOME 361 (3) - Fundamentals of Genetics Q SCI 292 (5) - Calculus for Biologists II
Natural History / Biodiversity Course	<u>ESRM 452 (3) - Field Ornithology</u> ESRM 456 (3) - Biol & Cons of Birds FISH 450 (3) - Salmonid Beh & Life Hist		<u>FISH 475 (5) - Marine Mammalogy</u>
General Biology Electives	BH 402 (5) - Ethical Theory GWSS/ PSYCH 357 (5) - Psychobiology of Women MICROM 301/302L (3/2) - <i>Intro to Microbio/Lab</i>	BH 444 (3) - Ethical Implications of Emerging Biotech PHG 302 (3) - Forensic Genetics	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) - <i>Intro to Microbio/Lab</i>
Molecular Cell Developmental Biology Courses	BIOC 405 (3) - Survey in Biochemistry BIOC 440 (4) - Biochemistry <u>BIOC 446L (4) - Biochemistry Lab</u> GENOME 372 (5) - Genomics and Proteomics IMMUNO 441 (4) - Intro to Immunology <u>MICROM 402L (3) - Fund of Gen Micro Lab</u> 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 <u>MICROM 431L (3) - Prok. Recomb DNA Tech</u> MICROM 442 (3) - Medical Bacteriology MICROM 450 (3) - Molecular Bio of Viruses	BIOC 406 (3) - Survey in Biochemistry BIOC 442 (4) - Biochemistry <u>BIOC 446L (4) - Biochemistry Lab</u> GENOME 373 (5) - Genome Informatics GENOME 475 (3) - Debates in Genetics <u>MICROM 402L (3) - Fund of Gen Micro Lab</u> MICROM 412 (3) - Prokaryotic Diversity MICROM 445 (3) - Medical Virology MICROM 460 (3) - Med. Mycology & Parasitology
Physiology Courses		<u>FISH 324 (3/5L) - Aquatic Physiology and Repro</u> NUTR 406 (3) - Sports Nutrition	<u>FISH 441 (3/5L) - Environmental Physiology</u>
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 455 (1) - Wildlife Sem ESRM 465 (3) - Econ of Conservation ESRM 470 (5) - Natural Res Policy & Planning FISH 406 (5) - Parasite Ecology FISH 427 (5) - Tropical Ecology GEOG 360 (5) - Principles of GIS Mapping PSYCH 300 (5) - Animal Behavior	ESRM 400 (3) - Natural Resource Conflict Mgmt ESRM 430 (3) - Hyperspatial Remote Sensing ESRM 450 (5) - Wildlife Ecology & Cons. ESRM 455 (1) - Wildlife Sem ESRM 457 (3/5) - Fish and Wildlife Toxicology ESRM 458 (5) - Mgmt of Thrt, Endgd, Sens Sp FISH 444 (5) - Conservation Genetics FISH 464 (4) - Arctic Marine Ecology GEOG 462 (5) - Coastal GIS	ESRM 250 (5) - Intro to GIS ESRM 455 (1) - Wildlife Sem ESRM 459 (3) -Wildlife Cons. in NW Ecosystems GEOG 360 (5) - Principles of GIS Mapping PSYCH 419 (5) - Behavioral Stds of Zoo Animals
Plant Biology	ESRM 325 (3) - Environmental App of Plants ESRM 415 (5) - Terrestrial Invasion Ecology	<u>ESRM 404 (5) - Plant Microbiology</u>	ESRM 411 (3) - Plant Propagation: Princ. & Practice ESRM 412 (3) - Native Plant Production

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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.