

## *Matrix Planned Biology Courses For 2020 - 2021 (tentative)*

Category	Autumn 2020	Winter 2021	Spring 2021
<b>Foundation Courses</b>	BIOL 350 (3) - Foundations in Physiology 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	BIOL 350 (3) - Foundations in Physiology BIOL 354 (3) - Foundations in Evol & Systematics BIOL 355 (3) - Foundations in Molec Cell Biology
<b>Natural History / Biodiversity Course *</b>	<u>BIOL 311 (5) - Biology of Fishes</u> <u>BIOL 434 (5) - Invertebrate Zoology</u> <u>BIOL 438 (5) - Quant. Approaches to Paleobio</u> <u>BIOL 441 (5) - Trends in Land Plant Evolution</u> <u>BIOL 443 (5) - Evolution of Mammals &amp; Ancest</u>	<u>BIOL 434 (5) - Invertebrate Zoology</u> <u>BIOL 448 (5) - Mammalogy</u> <u>BIOL 450 (5) - Vertebrate Paleontology</u> <u>BIOL 453 (5) - Comp Anatomy of Vertebrates *</u>	<u>BIOL 317 (5) - Plant ID &amp; Classification</u> BIOL 331 (3) - Landscape Plant Recognition <u>BIOL 433 (5) - Marine Ecology</u> <u>BIOL 440 (5) - General Mvcology</u> <u>BIOL 443 (5) - Evolution of Mammals &amp; Ancest</u> <u>BIOL 444 (5) - Ornithology</u> <u>BIOL 452 (5) - Vertebrate Biology*</u>
<b>Molecular Cell Developmental Biology Courses</b>	<u>BIOL 302 (4) - Lab Techniques in Cell&amp; Molec Bio</u> <u>BIOL 400 (4) - Experiments in Molecular Bio.</u> BIOL 401 (3) - Advanced Cell Biology BIOL 411 (4) - Developmental Biology BIOL 416 (3) - Development of Plant Genetics BIOL 431 (1) - Cannabinoids, Plant and Human	<u>BIOL 302 (4) - Lab Techniques in Cell&amp; Molec Bio</u> BIOL 401 (3) - Advanced Cell Biology BIOL 405 (3) - Cell & Molec Biol of Human Disease <u>BIOL 407 (4) - Molecular Cell Biology of Neural Stem Cells</u> BIOL 415 (3) - Evolution and Development BIOL 431 (1) - Cannabinoids, Plant and Human BIOL 459 (3) - Developmental Neurobiology BIOL 464 (2) - Molecular Mechanisms of Cancer Seminar	<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 416 (3) - Molec Genetics of Plant Dev <u>BIOL 495 (3) - Biology of Fermentation</u>
<b>Physiology Courses *</b>	<u>BIOL 310 (5) - Survey of Human Anatomy</u> BIOL 404 (3) - Animal Physio:Cellular Aspects BIOL 417 (4) - Reproductive Physio <u>BIOL 427 (5) - Biomechanics</u> <u>BIOL 428 (4) - Sensory Neurophys and Ecol</u> BIOL 455 (4) - Human Immuno & Patho BIOL 488 (2) - Senior Seminar in 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 460 (3) - Mammalian Physiology BIOL 461 (3) - Neurobiology BIOL 466 (3) - Pathobiology of Emerging Diseases	<u>BIOL 310 (5) - Survey of Human Anatomy</u> BIOL 418 (4) - Circadian Rhythms BIOL 421 (4) - Eco & Evo Physio of Animals BIOL 422 (3) - Behavior of Plants <u>BIOL 452 (5) - Vertebrate Biology*</u> BIOL 462 (3) - Animal Physiology BIOL 467 (3) - Comparative Animal Physiology BIOL 488 (3) - Senior Seminar in Physiology
<b>Ecology, Evolution, Systematics, and Conservation Courses</b>	BIOL 315 (3) - Biol. Impacts of Climate Change <u>BIOL/FISH 473/474 (3/2) - Limnology &amp; Lab</u> BIOL 486 (1) - Senior Seminar in Ecology	<u>BIOL 408 (4) - Neuroethology</u> BIOL 423 (3) - Marine Ecological Processes BIOL 478 (3) - Topics in Sustainable Fisheries BIOL 483 (1) - Senior Seminar in Paleobiology	BIOL 315 (3) - Biol. Impacts of Climate Change BIOL 469 (3) - Evolution and Medicine <u>BIOL 472 (4) - Community Ecology</u> <u>BIOL 480 (4) - Field Ecology</u> BIOL 483 (1) - Senior Seminar in Paleobiology BIOL 489 (1) - Senior Sem in Plant Biology
<b>Counts for all degrees</b>	BIOL 490 (1) - Senior Sem in Fungal Symbiosis	BIOL 359 (3) - Quantitative Biology	BIOL 305 (3) - Video Storytelling BIOL 359 (3) - Quantitative Biology BIOL 492 (3) - Teaching Biology Inclusively
<b>Special Topics</b>		BIOL 497 (4) - Roles for skin cells in sensory perception BIOL 497 (3) - Comparative Immunology BIOL 497 (3) - Conservation of Large Vertebrates BIOL 497 (2) - Theriot seminar	BIOL 497 (2) - New Cell Seminar BIOL 497 (3) - Uncommon Leaders

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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 2020 - 2021 <sup>1</sup> (tentative)

Category	Autumn 2020	Winter 2021	Spring 2021
<b>Genetics</b>	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
<b>Math and Stats</b>	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
<b>Natural History / Biodiversity Course</b>	<u>ESRM 452 (3) - Field Ornithology</u> 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 <u>FISH 475 (5) - Marine Mammalogy</u>
<b>General Biology Electives</b>	BH 402 (5) - Ethical Theory MICROM 301/ <u>302L</u> (3/2) - Intro to Microbio/ <u>Lab</u>	BH 444 (3) - Ethical Implications of Emerging Biotech BH 488 (3) - Global Bioethics	BH 420 (3) -Philosophical Problems in Bioethics GWSS/ PSYCH 357 (5) - Psychobiology of Women MICROM 301/ <u>302L</u> (3/2) - Intro to Microbio/ <u>Lab</u>
<b>Molecular Cell Developmental Biology Courses</b>	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 411L (4) - Bacterial Genetics</u> <u>MICROM 431L (3) - Prok. Recomb DNA Tech</u> MICROM 442 (3) - Medical Bacteriology	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
<b>Physiology Courses</b>		<u>FISH 324 (3/5L) - Aquatic Physiology and Repro</u> NUTR 405 (3) - Phys Activity in Health and Disease	<u>FISH 441 (3/5L) - Environmental Physiology</u> NUTR 406 (3) - Sports Nutrition
<b>Ecology, Evolution, Systematics, and Conservation Courses</b>	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 FISH 406 (5) - Parasite Ecology GEOG 360 (5) - Principles of GIS Mapping PSYCH 300 (5) - Animal Behavior	ESRM 250 (5) - Intro to GIS ESRM 400 (3) - Natural Resource Conflict Mgmt ESRM 432 (4) - Adv. 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 427 (5) - Tropical Marine Biology FISH 464 (4) - Marine Arctic Ecology	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
<b>Plant Biology</b>	ESRM 325 (3) - Environmental Appl. Of Plants ESRM 415 (5) - Terrestrial Invasion Ecology	ESRM 422 (2) - Plant Microbiology seminar	ESRM 411 (3) - Plant Propagation: Princ. & Practice ESRM 412 (3) - Native Plant Production

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<sup>1</sup> **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.