

## *Selected Additional Courses For 2018 - 2019<sup>1</sup> (tentative)*

Category	Autumn 2018	Winter 2019	Spring 2019
<b>Genetics and Mathematics</b>	<b>BIOST 310</b> (4) - Biostats for the Health Sciences <b>FISH/BIOL 340</b> (5) - Genetics & Molecular Ecol <b>GENOME 361</b> (3) - Fundamentals of Genetics <b>GENOME 371</b> (5) - Intro Genetics <b>Q SCI 291</b> (5) - Calculus for Biologists I <b>Q SCI 482</b> (5) - Stat Infer in Appl Research	<b>BIOST 310</b> (4) - Biostats for the Health Sciences <b>GENOME 361</b> (3) - Fundamentals of Genetics <b>Q SCI 291</b> (5) - Calculus for Biologists <b>Q SCI 292</b> (5) - Calculus for Biologists II <b>Q SCI 482</b> (5) - Stat Infer in Appl Research	<b>BIOST 310</b> (4) - Biostats for the Health Sciences <b>FISH/BIOL 340</b> (5) - Genetics & Molecular Ecol <b>GENOME 361</b> (3) - Fundamentals of Genetics <b>Q SCI 292</b> (5) - Calculus for Biologists II
<b>Natural History / Biodiversity Course</b>	<u><b>ESRM 452</b> (3) - Field Ornithology</u> <b>ESRM 456</b> (3) - Biol & Cons of Birds <b>FISH 450</b> (3) - Salmonid Beh & Life Hist		<b>ESRM 435</b> (3) - Insect Ecology <u><b>FISH 475</b> (5) - Marine Mammalogy</u>
<b>General Biology Electives</b>	<b>BH 402</b> (5) - Ethical Theory <b>GWSS/ PSYCH 357</b> (5) - Psychobiology of Women <b>MICROM 301/302L</b> (3/2) - <i>Intro to Microbio/Lab</i>	<b>BH 444</b> (3) - Ethical Implications of Emerging Biotech <b>PHG 301</b> (3) - Public Health Genetics	<b>BH 420</b> (3) -Philosophical Problems in Bioethics <b>BH 421</b> (5) - History of Eugenics <b>GWSS/ PSYCH 357</b> (5) - Psychobiology of Women <b>MICROM 301/302L</b> (3/2) - <i>Intro to Microbio/Lab</i> <b>PHG 301</b> (3) - Public Health Genetics
<b>Molecular Cell Developmental Biology Courses</b>	<b>BIOC 405</b> (3) - Survey in Biochemistry <b>BIOC 440</b> (4) - Biochemistry <u><b>BIOC 446L</b> (4) - Biochemistry Lab</u> <b>GENOME 372</b> (5) - Genomics and Proteomics <b>IMMUNO 441</b> (4) - Intro to Immunology <u><b>MICROM 402L</b> (3) - Fund of Gen Micro Lab</u> <b>MICROM 410</b> (3) - Fund of Gen Micro	<b>BIOC 406</b> (3) - Survey in Biochemistry <b>BIOC 441</b> (4) - Biochemistry <b>GENOME 465</b> (4) - Adv Human Genetics <b>GENOME 466</b> (4) - Cancer Genetics <u><b>MICROM 431L</b> (3) - Prok. Recomb DNA Tech</u> <b>MICROM 442</b> (3) - Medical Bacteriology <b>MICROM 450</b> (3) - Molecular Bio of Viruses	<b>BIOC 442</b> (4) - Biochemistry <u><b>BIOC 446L</b> (4) - Biochemistry Lab</u> <b>GENOME 373</b> (5) - Genome Informatics <b>GENOME 475</b> (3) - Debates in Genetics <u><b>MICROM 402L</b> (3) - Fund of Gen Micro Lab</u> <b>MICROM 412</b> (3) - Prokaryotic Diversity <b>MICROM 445</b> (3) - Medical Virology <b>MICROM 461</b> (3) - Med. Mycology & Parasitology
<b>Physiology Courses</b>		<u><b>FISH 324</b> (3/5L) - Aquatic Physiology and Repro</u> <b>NUTR 406</b> (3) - Sports Nutrition	<u><b>FISH 441</b> (3/5L) - Environmental Physiology</u> <b>NUTR 405</b> (3) - Phys Activity in Health & Disease
<b>Ecology, Evolution, Systematics, and Conservation Courses</b>	<b>ESRM 250</b> (5) - Intro to GIS <b>ESRM 350</b> (5) - Wildlife Biology & Cons. <b>ESRM/ENVIR 362</b> (5) - Intro to Rest Ecol <b>ESRM 441</b> (5) - Landscape Ecology <b>ESRM 455</b> (1) - Wildlife Sem <b>ESRM 465</b> (3) - Econ of Conservation <b>ESRM 470</b> (5) - Natural Res Policy & Planning <b>FISH 406</b> (5) - Parasite Ecology <b>GEOG 360</b> (5) - Principles of GIS Mapping <b>PSYCH 300</b> (5) - Animal Behavior	<b>ESRM 400</b> (3) - Natural Resource Conflict Mgmt <b>ESRM 430</b> (3) - Hyperspatial Remote Sensing <b>ESRM 450</b> (5) - Wildlife Ecology & Cons. <b>ESRM 455</b> (1) - Wildlife Sem <b>ESRM 457</b> (3/5) - Fish and Wildlife Toxicology <b>ESRM 458</b> (5) - Mgmt of Thrt, Endgd, Sens Sp <b>FISH 444</b> (5) - Conservation Genetics <b>GEOG 462</b> (5) - Coastal GIS <b>PSYCH 300</b> (5) - Animal Behavior	<b>ESRM 250</b> (5) - Intro to GIS <b>ESRM 455</b> (1) - Wildlife Sem <b>ESRM 459</b> (3) -Wildlife Cons. in NW Ecosystems <b>GEOG 360</b> (5) - Principles of GIS Mapping <b>PSYCH 419</b> (5) - Behavioral Stds of Zoo Animals
<b>Plant Biology</b>	<b>ESRM 325</b> (3) - Environmental App of Plants <b>ESRM 415</b> (5) - Terrestrial Invasion Ecology		<b>ESRM 411</b> (3) - Plant Propagation: Princ. & Practice <b>ESRM 412</b> (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.

## *Matrix Planned Biology Courses For 2018 - 2019 (tentative)*

Category	Autumn 2018	Winter 2019	Spring 2019
<b>Foundation Courses</b>	<p><b>BIOL 350</b> (3) - Foundations in Physiology  <b>BIOL 354</b> (3) - Foundations in Evol &amp; Systematics  <b>BIOL 355</b> (3) - Foundations in Molec Cell Biology  <u><b>BIOL 356</b> (3) - Foundations in Ecology</u></p>	<p><b>BIOL 350</b> (3) - Foundations in Physiology  <b>BIOL 355</b> (3) - Foundations in Molec Cell Biology  <u><b>BIOL 356</b> (3) - Foundations in Ecology</u></p>	<p><b>BIOL 350</b> (3) - Foundations in Physiology  <b>BIOL 355</b> (3) - Foundations in Molec Cell Biology</p>
<b>Natural History / Biodiversity Course *</b>	<p><u><b>BIOL 438</b> (5) - Quant. Approaches to Paleobio</u>  <u><b>BIOL 441</b> (5) - Trends in Land Plant Evolution</u>  <u><b>BIOL 453</b> (5) - Comp Anatomy of Vertebrates *</u></p>	<p><u><b>BIOL 311</b> (3/5) - Biology of Fishes</u>  <u><b>BIOL 434</b> (5) - Invertebrate Zoology</u>  <u><b>BIOL 440</b> (5) - General Mycology</u>  <u><b>BIOL 453</b> (5) - Comp Anatomy of Vertebrates *</u></p>	<p><u><b>BIOL 317</b> (5) - Plant ID &amp; Classification</u>  <u><b>BIOL 434</b> (5) - Invertebrate Zoology</u>  <u><b>BIOL 437</b> (5) - Herpetology</u>  <u><b>BIOL 440</b> (5) - General Mycology</u>  <u><b>BIOL 451</b> (5) - Invertebrate Paleontology</u>  <u><b>BIOL 452</b> (5) - Vertebrate Biology *</u></p>
<b>Molecular Cell Developmental Biology Courses</b>	<p><u><b>BIOL 302</b> (4) - Lab Techniques in Cell&amp; Molec Bio</u>  <u><b>BIOL 400</b> (4) - Experiments in Molecular Biology</u>  <b>BIOL 411</b> (4) - Developmental Biology  <b>BIOL 431</b> (1) - Cannabinoids, Plant and Human  <b>BIOL 455</b> (4) - Human Immunology and Pathology  <b>BIOL 485</b> (2) - Senior Seminars in MCD</p>	<p><u><b>BIOL 302</b> (4) - Lab Techniques in Cell&amp; Molec Bio</u>  <b>BIOL 401</b> (3) - Advanced Cell Biology  <u><b>BIOL 413</b> (4) - Molec Genetics of Development</u>  <b>BIOL 459</b> (3) - Developmental Neurobiology  <b>BIOL 485</b> (1-2) - Senior Seminars in MCD</p>	<p><u><b>BIOL 402</b> (4) - Functional Genomics</u>  <b>BIOL 405</b> (3) - Cell &amp; Molec Biol of Human Disease  <b>BIOL 410</b> (2) - Current Topics in MCB Research  <b>BIOL 411</b> (4) - Developmental Biology  <b>BIOL 416</b> (3) - Development of Plant Genetics  <b>BIOL 411</b> (4) - Developmental Biology  <b>BIOL 485</b> (1-2) - Senior Seminars in MCD</p>
<b>Physiology Courses *</b>	<p><u><b>BIOL 310</b> (5) - Survey of Human Anatomy</u>  <b>BIOL 404</b> (3) - Animal Physiology: Cell Aspects  <u><b>BIOL 427</b> (5) - Biomechanics</u>  <u><b>BIOL 453</b> (5) - Comp Anatomy of Vertebrates *</u>  <b>BIOL 465</b> (3) - Comparative Endocrinology  <b>BIOL 466</b> (3) - Pathobio of Emerging Diseases  <b>BIOL 468</b> (3) - Medical Physiology</p>	<p><u><b>BIOL/ESRM 408</b> (4) - Neuroethology</u>  <u><b>BIOL/ESRM 424/478</b> (5) - Plant Eco-Physiology</u>  <b>BIOL 425</b> (3) - Plant Physiology and Development  <u><b>BIOL 453</b> (5) - Comp Anatomy of Vertebrates *</u>  <b>BIOL 460</b> (3) - Mammalian Physiology  <b>BIOL 461</b> (3) - Neurobiology  <b>BIOL 466</b> (3) - Pathobiology of Emerging Diseases</p>	<p><u><b>BIOL 310</b> (5) - Survey of Human Anatomy</u>  <u><b>BIOL 360</b> (4) - Cell Anatomy</u>  <b>BIOL 418</b> (4) - Biological Clocks and Rhythms  <b>BIOL 422</b> (3) - Behavior of Plants  <u><b>BIOL 452</b> (5) - Vertebrate Biology *</u>  <b>BIOL 462</b> (3) - Adv Animal Physiology  <u><b>BIOL 463</b> (3) - Adv Animal Physiology Lab</u>  <b>BIOL 467</b> (3) - Comparative Animal Physiology</p>
<b>Ecology, Evolution, Systematics, and Conservation Courses</b>	<p><b>BIOL 315</b> (3) - Biol. Impacts of Climate Change  <b>BIOL 423</b> (3) - Marine Ecological Processes  <u><b>BIOL 433</b> (5) - Marine Ecology</u>  <u><b>BIOL/FISH 473/474</b> (3/2) - Limnology &amp; Lab</u>  <b>BIOL 483</b> (1) - Senior Seminar in Paleobiology</p>	<p><b>BIOL 423</b> (3) - Marine Ecological Processes  <b>BIOL 483</b> (1) - Senior Seminar in Paleobiology  <b>BIOL 486</b> (2) - Senior Seminar in Ecology</p>	<p><b>BIOL 315</b> (3) - Biol. Impacts of Climate Change  <b>BIOL 469</b> (3) - Evolution and Medicine  <u><b>BIOL 472</b> (5) - Community Ecology</u>  <u><b>BIOL 480</b> (4) - Field Ecology</u>  <b>BIOL 483</b> (1) - Senior Seminar in Paleobiology</p>
<b>Counts for all degrees</b>	<p><b>BIOL 396</b> (1-4) - Peer Facilitation  <b>BIOL 399</b> (vary) - Internship</p>	<p><b>BIOL 396</b> (1-4) - Peer Facilitation  <b>BIOL 399</b> (vary) - Internship  <b>BIOL 419</b> (3) - Data Science for Biologists</p>	<p><b>BIOL 305</b> (3) - Video Storytelling  <b>BIOL 396</b> (1-4) - Peer Facilitation  <b>BIOL 399</b> (vary) - Internship  <b>BIOL 492</b> (3) - Teaching Biology Inclusively</p>
<b>Special Topics</b>	<p><b>BIOL 490</b> (2) - Senior Seminar w/Ammirati</p>	<p><b>BIOL 489</b> (2) - Plant Seminar</p>	

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Underlined courses indicate a lab class

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