

| Semester |        | Title (units)   | Pre-Requisites   | Co-Requisites | Pre- or Co-requisites | GE Attribute |
|----------|--------|---|--|---------------|-----------------------|--------------|
| Subject  | Number |   |  |               |                       |              |
| BIO      | 1020   | BIO 1020 - Plagues, Pandemics and Bioterrorism (3)                                      | undergraduate standing   |               |                       | B2           |
| BIO      | 1040   | BIO 1040 - What is Evolution? (3)   | undergraduate standing   |               |                       | B2           |
| BIO      | 1060   | BIO 1060 - Human Biology (3)  | undergraduate standing   |               |                       | B2           |
| BIO      | 1110   | BIO 1110 - Life Science (2)   | undergraduate standing   |               |                       | B2           |
| BIO      | 1110L  | BIO 1110L - Life Science Laboratory (1)   |  |               | BIO 1110              | B3           |
| BIO      | 1150   | BIO 1150 - Basic Biology (3)  |  | BIO 1150L     |                       | B2           |
| BIO      | 1150L  | BIO 1150L - Basic Biology Laboratory (1)  |  | BIO 1150      |                       | B3           |
| BIO      | 1210   | BIO 1210 - Foundations of Biology: Energy, Matter, and Information (3)                  |  | BIO 1210L     |                       | B2           |
| BIO      | 1210L  | BIO 1210L - Foundations of Biology: Energy, Matter, and Information Laboratory (1)      |  | BIO 1210      |                       | B3           |
| BIO      | 1220   | BIO 1220 - Foundations of Biology: Evolution, Ecology, and Biodiversity (3)             |  | BIO 1220L     |                       |              |
| BIO      | 1220L  | BIO 1220L - Foundations of Biology: Evolution, Ecology, and Biodiversity Laboratory (1) |  | BIO 1220      |                       |              |
| BIO      | 2020   | BIO 2020 - Medical Terminology (3)  | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   |               |                       |              |
| BIO      | 2050   | BIO 2050 - Form and Function in Plants (3)  | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2050L     |                       |              |
| BIO      | 2050L  | BIO 2050L - Form and Function in Plants Laboratory (1)                                  | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2050      |                       |              |
| BIO      | 2060   | BIO 2060 - Basic Microbiology (3)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2060L     |                       |              |
| BIO      | 2060L  | BIO 2060L - Basic Microbiology Laboratory (1)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   |               |                       |              |
| BIO      | 2070   | BIO 2070 - Animal Biology (3)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2070L     |                       |              |
| BIO      | 2070L  | BIO 2070L - Animal Biology Laboratory (1)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2070      |                       |              |
| BIO      | 2110L  | BIO 2110L - Biostatistics Laboratory (1)  | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   |               |                       |              |
| BIO      | 2120   | BIO 2120 - Life Science for Elementary Educators (2)                                    | BIO 1210/1210L, BIO 1220/1220L and STA 1300  |               |                       |              |
| BIO      | 2120L  | BIO 2120L - Life Science for Elementary Educators Laboratory (1)                        |  | BIO 2120L     |                       |              |
| BIO      | 2300   | BIO 2300 - Horizons in Biotechnology (1)  | Undergraduate standing   |               |                       |              |
| BIO      | 2340   | BIO 2340 - Human Anatomy (2)  | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2340L     |                       |              |
| BIO      | 2340L  | BIO 2340L - Human Anatomy Laboratory (2)  | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2340      |                       |              |
| BIO      | 2350   | BIO 2350 - Human Physiology (3)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2350L     |                       |              |
| BIO      | 2350L  | BIO 2350L - Human Physiology Laboratory (1)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2350      |                       |              |
| BIO      | 2370   | BIO 2370 - Introduction to Invertebrate Zoology (3)                                     | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2370L     |                       |              |
| BIO      | 2370L  | BIO 2370L - Introduction to Invertebrate Zoology Laboratory (1)                         | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2370      |                       |              |
| BIO      | 2380   | BIO 2380 - Introduction to Vertebrate Zoology (3)                                       | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2380L     |                       |              |
| BIO      | 2380L  | BIO 2380L - Introduction to Vertebrate Zoology Laboratory (1)                           | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 2380      |                       |              |
| BIO      | 2400   | BIO 2400 - Genetics (3)   | BIO 1110L; or BIO 1150/1150L; or the series of BIO 1210/1210L & 1220/1220L   |               |                       |              |
| BIO      | 3000   | BIO 3000 - Genetics and Human Issues (3)  | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2, B3, B4 (note: GE B5 inherently requires that GE A and B areas are completed)                      |               |                       | B5           |
| BIO      | 3010   | BIO 3010 - Human Sexuality (3)  | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2, B3, B4 (note: GE B5 inherently requires that GE A and B areas are completed)                      |               |                       | B5           |
| BIO      | 3030   | BIO 3030 - Sexually Transmitted Diseases and Safer Sex (3)                              | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2, B3, B4 (note: GE B5 inherently requires that GE A and B areas are completed)                      |               |                       | B5           |
| BIO      | 3040   | BIO 3040 - Environment and Society (3)  | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2, B3, B4 (in biology), B3, B4 (note: GE B5 inherently requires that GE A and B areas are completed) |               |                       | B5           |
| BIO      | 3070   | BIO 3070 - Biology of Human Pregnancy (3)   | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2, B3, B4 (note: GE B5 inherently requires that GE A and B areas are completed)                      |               |                       | B5           |
| BIO      | 3090   | BIO 3090 - Biology of the Brain (3)   | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2 (in biology), B3, B4 (note: GE B5 inherently requires that GE A and B areas are completed)         |               |                       | B5           |
| BIO      | 3120   | BIO 3120 - Biodiversity Conservation (3)  | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2 (in biology), B3, B4 (note: GE B5 inherently requires that GE A and B areas are completed)         |               |                       | B5           |
| BIO      | 3130   | BIO 3130 - Marine Biology (3)   | Junior or Senior standing, GE courses in areas A1, A2, A3, B1, B2, B3, B4 (note: GE B5 inherently implies that GE A and B areas are completed)                       |               |                       | B5           |
| BIO      | 3220   | BIO 3220 - Cell and Molecular Biology (3)   | BIO 2400; Recommended CHM2010 or CHM 3140  |               |                       |              |
| BIO      | 3240   | BIO 3240 - Principles of Evolution (3)  | BIO 1210/1210L, BIO 1220/1220L, BIO 2400,  |               |                       |              |
| BIO      | 3250   | BIO 3250 - Principles of Ecology (3)  | BIO 1210/1210L and BIO 1220/1220L  |               |                       |              |
| BIO      | 3250L  | BIO 3250L - Ecology Laboratory (1)  | BIO 3250 and BIO 2110L   |               |                       |              |
| BIO      | 3500   | BIO 3500 - California Flora (1)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 3500L     |                       |              |
| BIO      | 3500L  | BIO 3500L - California Flora Laboratory (1)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 3500      |                       |              |
| BIO      | 3600   | BIO 3600 - General Epidemiology (3)   | BIO 2060/2060L and STA 1300 and BIO 2110L  |               |                       |              |
| BIO      | 3620   | BIO 3620 - Applied Microbiology (2)   | BIO 2060/2060L, AND CHM 2010 or CHM 3150, AND CHM 2010L or CHM 3140L;  | BIO 3620L     |                       |              |
| BIO      | 3620L  | BIO 3620L - Applied Microbiology Laboratory (1)   | BIO 2060/2060L, AND CHM 2010 or CHM 3150, AND CHM 2010L or CHM 3140L;  | BIO 3620      |                       |              |
| BIO      | 3640   | BIO 3640 - Food Microbiology (2)  | BIO 2060/2060L;  |               |                       |              |
| BIO      | 3640L  | BIO 3640L - Food Microbiology Laboratory (1)  | BIO 2060/2060L;  | BIO 3640      |                       |              |
| BIO      | 4020   | BIO 4020 - Developmental Biology (3)  | BIO 3220   |               |                       |              |
| BIO      | 4020L  | BIO 4020L - Developmental Biology Laboratory (1)  | BIO 3220   | BIO 4020      |                       |              |
| BIO      | 4030   | BIO 4030 - Human Genetics (3)   | BIO 3220   |               |                       |              |
| BIO      | 4040   | BIO 4040 - Advanced Genetics (3)  | BIO 2400   |               |                       |              |
| BIO      | 4060   | BIO 4060 - Regulatory Affairs and Safety Assessment (3)                                 | BIO 1210 & BIO1210L, BIO 1220 & BIO 1220L or instructor consent  |               |                       |              |
| BIO      | 4080   | BIO 4080 - Water Pollution Biology (3)  | BIO 1110/1110L, BIO 1150/1150L, or BIO 1210/1210L and BIO 1220/1220L   |               |                       |              |
| BIO      | 4100   | BIO 4100 - Biophysics (3)   | C- or better in PHY 1220 or PHY 1520   |               |                       |              |
| BIO      | 4140   | BIO 4140 - Biology of Species Invasions (2)   | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   |               |                       |              |
| BIO      | 4180   | BIO 4180 - Marine Ecology (3)   | BIO 3250   | BIO 4180L     |                       |              |
| BIO      | 4180L  | BIO 4180L - Marine Ecology Laboratory (1)   | BIO 3250   | BIO 4180      |                       |              |
| BIO      | 4190   | BIO 4190 - Neuroscience I: Cell and Molecular Processes (3)                             | BIO 3220;  | BIO 4190L     |                       |              |
| BIO      | 4190L  | BIO 4190L - Neuroscience I: Cell and Molecular Processes Laboratory (1)                 | BIO 3220;  | BIO 4190      |                       |              |
| BIO      | 4240   | BIO 4240 - Neuromuscular Physiology (3)   | BIO 4450/4450L   |               |                       |              |
| BIO      | 4200   | BIO 4200 - Neuroscience II: Neural Systems (3)  | BIO 3220 and BIO 4190;   | 4200L         |                       |              |
| BIO      | 4200L  | BIO 4200L - Neuroscience II: Systems Neuroscience Laboratory (1)                        | BIO 3220 and BIO 4190;   | 4200          |                       |              |
| BIO      | 4300   | BIO 4300 - Concepts of Molecular Biology (3)  | BIO 3220   |               |                       |              |
| BIO      | 4320   | BIO 4320 - Molecular Biology Techniques (3)   | BIO 3220   |               |                       |              |
| BIO      | 4320L  | BIO 4320L - Molecular Biology Techniques Laboratory (1)                                 | BIO 3220;  | BIO 4320      |                       |              |
| BIO      | 4360   | BIO 4360 - Recombinant DNA and Protein Technology (3)                                   | BIO 3220   |               |                       |              |
| BIO      | 4360L  | BIO 4360L - Recombinant DNA and Protein Technology Laboratory (1)                       | BIO 3220   | BIO 4360      |                       |              |
| BIO      | 4380   | BIO 4380 - Bioinformatics (2)   | BIO 2400 and CHM 3280;   | BIO 4380L     |                       |              |
| BIO      | 4380L  | BIO 4380L - Bioinformatics Laboratory (2)   | BIO 2400 and CHM 3280;   | BIO 4380      |                       |              |
| BIO      | 4390   | BIO 4390 - Cancer Cell Biology (3)  | BIO 3220   |               |                       |              |
| BIO      | 4400   | BIO 4400 - Stem Cell Biology (3)  | BIO 3220   |               |                       |              |
| BIO      | 4400L  | BIO 4400L - Stem Cell Biology Laboratory (1)  | BIO 3220   | BIO 4400      |                       |              |
| BIO      | 4410   | BIO 4410 - Internship in Biology (1-2)  | Completion of 60 or more units. Overall GPA of 2.0 or higher. Completed application signed by the on-site job supervisor and on-campus internship coordinator.       |               |                       |              |
| BIO      | 4430   | BIO 4430 - Tissue Culture and Its Application (2)                                       | BIO 3220   |               |                       |              |
| BIO      | 4430L  | BIO 4430L - Tissue Culture and Its Application Laboratory (2)                           | BIO 3220   | BIO 4430      |                       |              |
| BIO      | 4450   | BIO 4450 - Physiology I: Cells (3)  | BIO 3220;  | BIO 4450L     |                       |              |
| BIO      | 4450L  | BIO 4450L - Physiology I: Cells Laboratory (1)  | BIO 3220;  | BIO 4450      |                       |              |
| BIO      | 4460   | BIO 4460 - Physiology II: Systems (3)   | BIO 3220;  | BIO 4460L     |                       |              |
| BIO      | 4460L  | BIO 4460L - Physiology II: Systems Laboratory (1)                                       | BIO 3220;  | BIO 4460      |                       |              |
| BIO      | 4480   | BIO 4480 - Plant Physiology (3)   | BIO 2050/2050L;  | BIO 4480L     |                       |              |
| BIO      | 4480L  | BIO 4480L - Plant Physiology Laboratory (1)   | BIO 2050/2050L;  | BIO 4480      |                       |              |
| BIO      | 4490   | BIO 4490 - Marine Botany (2)  | BIO 2050;  | BIO 4490L     |                       |              |
| BIO      | 4490L  | BIO 4490L - Marine Botany Laboratory (2)  | BIO 2050;  | BIO 4490      |                       |              |
| BIO      | 4520   | BIO 4520 - Evolution of Plants (3)  | BIO 2050/2050L and BIO 3240;   | BIO 4520L     |                       |              |
| BIO      | 4520L  | BIO 4520L - Evolution of Plants Laboratory (1)  | BIO 2050/2050L and BIO 3240;   | BIO 4520      |                       |              |
| BIO      | 4530   | BIO 4530 - Plant Anatomy (2)  | BIO 2050/2050L;  | BIO 4530L     |                       |              |
| BIO      | 4530L  | BIO 4530L - Plant Anatomy Laboratory (2)  | BIO 2050/2050L;  | BIO 4530      |                       |              |
| BIO      | 4540   | BIO 4540 - Plant Genetics (3)   | BIO 1210/1210L and BIO 1220/1220L;   |               |                       |              |
| BIO      | 4550   | BIO 4550 - Field Biology (1-3)  | Special topics course which will have requisites added as needed   |               |                       |              |
| BIO      | 4550A  | BIO 4550A - Field Biology Activity (1-3)  | Special topics course which will have requisites added as needed   |               |                       |              |
| BIO      | 4550L  | BIO 4550L - Field Biology Laboratory (1-3)  | Special topics course which will have requisites added as needed   |               |                       |              |
| BIO      | 4560   | BIO 4560 - Plant Development and Differentiation (3)                                    | BIO 2050L;   |               |                       |              |
| BIO      | 4570   | BIO 4570 - Plants and the Environment (2)   | BIO 2050/2050L, BIO 2110L, and BIO 3250L;  | BIO 4570L     |                       |              |
| BIO      | 4570L  | BIO 4570L - Plants and the Environment Laboratory (2)                                   | BIO 2050/2050L, BIO 2110L, and BIO 3250L;  | BIO 4570      |                       |              |
| BIO      | 4580   | BIO 4580 - Ecology and Conservation of Hawaiian Ecosystems (2)                          | BIO 3250   | BIO 4580L     |                       |              |

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| BIO | 4580L  | • BIO 4580L - Ecology and Conservation of Hawaiian Ecosystems Laboratory (2) | BIO 3250   | BIO 4580   |  |
| BIO | 4590AS | • BIO 4590AS - Ethnobotany Service Learning Activity (2)                     | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 4590S  |  |
| BIO | 4590S  | • BIO 4590S - Ethnobotany - Service Learning (1)                             | BIO 1150/1150L or the series of BIO 1210/1210L and BIO 1220/1220L;   | BIO 4590AS |  |
| BIO | 4610   | Undergraduate Research   | Student must be good standing. Prior arrangement with a faculty member. At least one year of general biology. Completion of a supervisory form available in the Biological Sciences Department office. |            |  |
| BIO | 4620   | Senior Thesis  | Student must be senior standing. Prior arrangement with a faculty member. Completion of a supervisory form available in the Biological Sciences Department office.                                     |            |  |
| BIO | 4635   | • BIO 4635 - Medical Microbiology (3)  | BIO 2060/2060L;  | BIO 4635L  |  |
| BIO | 4635L  | • BIO 4635L - Medical Microbiology Laboratory (1)                            | BIO 2060/2060L;  | BIO 4635   |  |
| BIO | 4640   | • BIO 4640 - Medical Virology (1)  | BIO 2060/2060L;  |            |  |
| BIO | 4650   | • BIO 4650 - Immunology (3)  | BIO 2060/2060L;  |            |  |
| BIO | 4650L  | • BIO 4650L - Immunology Laboratory (1)                                      | BIO 2060/2060L;  | BIO 4650   |  |
| BIO | 4660   | • BIO 4660 - Microbial Physiology (3)  | BIO 2060/2060L; CHM 2010/2010L or CHM 3140/3140L;  |            |  |
| BIO | 4660L  | • BIO 4660L - Microbial Physiology Laboratory (1)                            | BIO 2060/2060L; CHM 2010/2010L or CHM 3140/3140L;  | BIO 4660   |  |
| BIO | 4670   | • BIO 4670 - General Virology (3)  | BIO 2060   |            |  |
| BIO | 4670L  | • BIO 4670L - General Virology Laboratory (1)                                | BIO 2060/2060L;  | BIO 4670   |  |
| BIO | 4680   | • BIO 4680 - Microbial Ecology (2)   | BIO 2060/2060L; Recommended CHM 3270/3270L and BIO 4320  |            |  |
| BIO | 4680L  | • BIO 4680L - Microbial Ecology Laboratory (1)                               | BIO 2060/2060L; Recommended CHM 3270/3270L and BIO 4320;   | BIO 4680   |  |
| BIO | 4690   | • BIO 4690 - Plant-microbe Interactions (2)                                  | BIO 2060/2060L;  | BIO 4690L  |  |
| BIO | 4690L  | • BIO 4690L - Plant-microbe Interactions Laboratory (1)                      | BIO 2060/2060L;  | BIO 4690   |  |
| BIO | 4700   | • BIO 4700 - Hematology (3)  | BIO 1210/1210L and BIO 1220/1220   |            |  |
| BIO | 4700L  | • BIO 4700L - Hematology Laboratory (1)                                      | BIO 1210/1210L and BIO 1220/1220L;   | BIO 4700   |  |
| BIO | 4800   | • BIO 4800 - Entomology (2)  | STA 1300, BIO 2110L, and BIO 2070/2070L or BIO 2370/2370L;   | BIO 4800L  |  |
| BIO | 4800L  | • BIO 4800L - Entomology Laboratory (2)                                      | STA 1300, BIO 2110L, and BIO 2070/2070L or BIO 2370/2370L;   | BIO 4800   |  |
| BIO | 4810   | • BIO 4810 - Histology (2)   | BIO 2070/2070L or BIO 2380/2380L;  | BIO 4810L  |  |
| BIO | 4810L  | • BIO 4810L - Histology Laboratory (2)                                       | BIO 2070/2070L or BIO 2380/2380L;  | BIO 4810   |  |
| BIO | 4820   | • BIO 4820 - Biology of Fishes (2)   | Any 2000 Level BIO course or Junior Standing   | BIO 4820L  |  |
| BIO | 4820L  | • BIO 4820L - Biology of Fishes Laboratory (2)                               | Any 2000 Level BIO course or Junior Standing   | BIO 4820   |  |
| BIO | 4840   | • BIO 4840 - Herpetology (2)   | BIO 2070/2070L or BIO 2380/2380L;  | BIO 4840L  |  |
| BIO | 4840L  | • BIO 4840L - Herpetology Laboratory (2)                                     | BIO 2070/2070L or BIO 2380/2380L;  | BIO 4840   |  |
| BIO | 4910AS | • BIO 4910AS - Interpretation of Science Service Learning Activity (2)       | BIO 1210/1210L and BIO 1220/1220L; Senior undergraduate or graduate standing required; BIO 4590S/4590AS recommended.   | BIO 4910S  |  |
| BIO | 4910S  | • BIO 4910S - Interpretation of Science Service Learning (1)                 | BIO 1210/1210L and BIO 1220/1220L; Senior undergraduate or graduate standing required; BIO 4590S/4590AS recommended.   | BIO 4910AS |  |
| BIO | 4990   | • BIO 4990 - Special Topics for Upper Division Students (1-3)                | Prerequisites will vary with course title and instructor   |            |  |
| BIO | 4990A  | • BIO 4990A - Special Topics for Upper Division Students Activity (1-3)      | Prerequisites will vary with course title and instructor   |            |  |
| BIO | 4990L  | • BIO 4990L - Special Topics for Upper Division Students Laboratory (1-3)    | Prerequisites will vary with course title and instructor   |            |  |
| BIO | 5000   | • BIO 5000 - Special Study for Graduate Students (1-3)                       |  |            |  |
| BIO | 5100   | • BIO 5100 - Statistics For Biologists Using R (3)                           | Graduate student in good standing  | BIO 5100L  |  |
| BIO | 5100L  | • BIO 5100L - Statistics For Biologists Using R Laboratory (1)               | Graduate student in good standing  | BIO 5100   |  |
| BIO | 5280   | • BIO 5280 - Community Ecology (3)   | BIO 3250L  |            |  |
| BIO | 5320   | • BIO 5320 - Advanced Physiology (1-3)                                       | Graduate student in good standing  |            |  |
| BIO | 5350   | • BIO 5350 - Advanced Cell Biology (3)                                       | BIO 3220   |            |  |
| BIO | 5370   | • BIO 5370 - Advanced Virology (3)   | Graduate student in good standing  |            |  |
| BIO | 5370L  | • BIO 5370L - Advanced Virology Laboratory (1)                               | Graduate student in good standing  | BIO 5370   |  |
| BIO | 5400   | • BIO 5400 - Biogeography (3)  | BIO 3250L and BIO 3240   |            |  |
| BIO | 5500   | • BIO 5500 - Biological Effects of Climate Change (2)                        | Graduate student in good standing  |            |  |
| BIO | 5600   | • BIO 5600 - Advanced Microbiology (1-3)                                     | Graduate student in good standing  |            |  |
| BIO | 5600L  | • BIO 5600L - Advanced Microbiology Laboratory (1-2)                         |  | BIO 5600   |  |
| BIO | 5760   | • BIO 5760 - Regulatory Affairs for the Biotechnology Industry (2)           | Graduate student in good standing  |            |  |
| BIO | 5800   | • BIO 5800 - Introduction to Instructional Methods in Biology                | Graduate student in good standing  |            |  |
| BIO | 5800L  | • BIO 5800L - Introduction to Instructional Methods in Biology (1)           | Graduate student in good standing  |            |  |
| BIO | 5810   | • BIO 5810 - Transport Across Cell Membranes (3)                             | BIO 4450/4450L   |            |  |
| BIO | 5810L  | • BIO 5810L - Transport Across Cell Membranes Laboratory (1)                 | BIO 4450/4450L;  | BIO 5810   |  |
| BIO | 5870   | • BIO 5870 - Advanced Muscle Biology and Disease (3)                         | Graduate student in good standing  |            |  |
| BIO | 5990   | Advanced Topics in Biology   | Prerequisites will vary with course title and instructor   |            |  |
| BIO | 5990L  | Graduate Laboratory  | Prerequisites will vary with course title and instructor   |            |  |
| BIO | 6800   | Seminar in Biology   | Graduate student status in good standing.  |            |  |
| BIO | 6930   | Presentation of Thesis Research Proposal                                     | Graduate student status in good standing.  |            |  |
| BIO | 6940   | Master's Thesis/Project Research   | Graduate student status in good standing.  |            |  |
| BIO | 6960   | Master's Degree Thesis   | BIO 6930 and Graduate writing assessment requirement passed  |            |  |