BIOLOGY, MS

Natural Sciences, Mathematics, and Engineering (nsme) (https:// catalog.csub.edu/general-information/csub-information/school-naturalsciences-mathematics-engineering/)

Department of Biology (https://catalog.csub.edu/general-information/ csub-information/school-natural-sciences-mathematics-engineering/ department-biology/)

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www.csub.edu/Biology (http://www.csub.edu/Biology/)

Program Maps for Natural Sciences, Mathematics, and Engineering (https://programmap.csub.edu/academics/interest-clusters/4e942a6eb8e4-4b60-a1ae-334235acc581/)

Program Requirements Requirements for Thesis Option (30 Units)

| Code | Title | Units | |
|--------------------------------|---|-------|--|
| Thesis-Option | | | |
| BIOL 5100 | Advanced Experimental Design and Analysis | 4 | |
| BIOL 5010 | Current Topics in Biology ¹ | 6 | |
| BIOL 6010 | Seminar in Biology | 2 | |
| BIOL 6911 | Thesis ² | 5 | |
| BIOL 6921 | Thesis Defense | 1 | |
| Electives Courses | 3 ³ | | |
| Select two of the following: 6 | | | |
| BIOL 4310 | Conservation Biology | | |
| BIOL 4320 | Population and Community Ecology | | |
| BIOL 4330 | Behavioral Ecology | | |
| BIOL 4340 | Chemical Ecology | | |
| BIOL 4350 | Environmental Microbiology | | |
| BIOL 4360 | Aquatic Ecology | | |
| BIOL 4410 | Entomology | | |
| BIOL 4420 | Plant Diversity | | |
| BIOL 4430 | Wildlife Biology | | |
| BIOL 4440 | Molecular Genetics | | |
| BIOL 4450 | Genomics and Bioinformatics | | |
| BIOL 4460 | Evolutionary Genetics | | |
| BIOL 4510 | Comparative Vertebrate Structure | | |
| BIOL 4520 | | | |
| BIOL 4530 | Terrestrial Ecosystem Ecology | | |
| BIOL 4540 | Physiological Plant Ecology | | |
| BIOL 4550 | Plant Structure and Function | | |
| BIOL 4560 | Plant Pathology | | |
| BIOL 4700 | Special Topics in Biology ⁴ | | |
| BIOL 5010 | Current Topics in Biology ⁵ | | |
| BIOL 5710 | Advanced Topics in Biology ⁴ | | |

| Total Units | | 30 |
|-------------|---|----|
| MATH 5210 | Applied Statistical Computing and Multivariate Methods | 4 |
| GEOL 6770 | Advanced Topics in Geology ⁴ | |
| GEOL 5771 | Advanced Topics 2 ⁴ | |
| GEOL 5770 | Advanced Topics ⁴ | |
| GEOL 5070 | Early Life on Earth | |
| GEOL 4771 | Special Topics in Geology 2 ⁴ | |
| GEOL 4770 | Special Topics in Geology ⁴ | |
| GEOL 4050 | GIS for Natural Sciences | |
| BIOL 5911 | Graduate Practicum in the Teaching of Biology | |
| BIOL 5901 | Research | |

¹ 2 units each and repeated three times

² taken over multiple semesters in 1-3 unit increments

³ 4000-, 5000-, or 6000-level courses. Selection of elective courses must be approved by Graduate Director (non-thesis option) or Thesis Committee (thesis option). Selection of elective courses must be approved by Graduate Director (non-thesis option) or Thesis Committee (thesis option)

⁴ may be repeated for credit ⁵ when repeated in addition

when repeated in addition to the three required courses