

# BIOLOGY, SUBJECT MATTER PREPARATION

EAR 416	Earth Sciences for Teachers	3
<b>Total Hours</b>		<b>65</b>

The Subject Matter Preparation Program is authorized by the California Commission on Teacher Credentialing. This course of study includes a number of prescribed courses that address proficiency standards for content knowledge required for the Single Subject credential in Biological Sciences. Interested students should contact the departmentally designated advisor for current information.

## Specific Biological Sciences Subject Matter Authorization (65 units)

Holders of a Single Subject or Multiple Subject credential issued by the California Commission on Teacher Credentialing may secure an additional Specific Biological Sciences Subject Matter Authorization that allows the holder to teach the specific subjects in grades preschool, K-12, and classes organized primarily for adults.

For other requirements governing issuance of this authorization, consult the Teacher Education section of this catalog or contact the College of Education Student Services Center.

## Requirements

Complete each of the following courses or equivalent as approved by the Biology Department Advisor:

Code	Title	Hours
<b>Lower Division Requirements</b>		
BIO 120	Principles of Biology I	3
BIO 121	Principles of Biology Lab I	1
BIO 122	Principles of Biology II	3
BIO 123	Principles of Biology II Lab	1
BIO 124	Principles of Biology III	3
BIO 125	Principles of Biology Lab III	1
BIO 220	Molecular Biology	3
BIO 221	Molecular Biology Laboratory	1
CHE 110	General Chemistry I	5
CHE 112	General Chemistry II	5
EAR 100	Physical Geology	3
EAR 101	Physical Geology Laboratory	1
MAT 131	Elementary Statistics and Probability	3
MAT 171	Survey of Calculus for Management and Life Sciences	4
PHY 120	Elements Of Physics I	4
PHY 122	Elements Of Physics II	4
<b>Upper Division Requirements</b>		
BIO 312	Animal Physiology	3
BIO 313	Animal Physiology Laboratory	1
BIO 332	Ecology	3
BIO 333	Ecology Laboratory	1
BIO 340	Genetics	3
BIO 490	Senior Project	3
CHE 316	Survey of Organic Chemistry	3