

**Prerequisite Coursework for Admission to the
High School MAT Program
BIOLOGY Endorsement**

I. GENERAL ADMISSIONS REQUIREMENTS FOR ALL MIDDLE/HIGH AREAS

A. LETTERS OF RECOMMENDATION BASED ON EXPERIENCES WORKING WITH YOUTH

Letters of recommendation documenting two successful experiences working with groups of children or adolescents. **Experiences in public schools are preferred, and experiences working with students at the Middle and High School ages are recommended for this level.**

The School of Education recommends students consider taking one or two undergraduate courses related to Education, such as Ed 251, Ed 252, or Ed 253 that offer academic and/or field-based opportunities for students to explore interests in the teaching profession.

B. BACHELOR’S DEGREE

Program participants must have a Bachelor’s degree from a regionally accredited college or university in a field appropriate to the specialty endorsement area (see “Degree Major” below).

C. GRADE POINT AVERAGE

Applicants should have a cumulative GPA of 3.0 in the most recent 90 quarter or 60 semester hours of undergraduate work, and a 3.0 GPA for courses completed in the selected endorsement area. Applicants who have a GPA lower than 3.0 may apply for post-baccalaureate admission.

II. REQUIREMENTS SPECIFIC TO THE BIOLOGY ENDORSEMENT

DEGREE MAJOR

A degree in biology or the equivalent of a biology major for a degree including at least 45 quarter hours with a laboratory and field course work in:

| | <u>Has</u> | <u>Needs</u> |
|---------------------------|------------|--------------|
| Plant Diversity | _____ | _____ |
| Animal Diversity | _____ | _____ |
| Genetics | _____ | _____ |
| Evolution | _____ | _____ |
| Ecology | _____ | _____ |
| Cell or Molecular Biology | _____ | _____ |
| Physiology | _____ | _____ |

Recommended:

| | | |
|--------------|-------|-------|
| Microbiology | _____ | _____ |
|--------------|-------|-------|

28 quarter hours of other required science/math courses:

| | | |
|--------------------|-------|-------|
| General Chemistry | _____ | _____ |
| Organic Chemistry | _____ | _____ |
| Physics or Geology | _____ | _____ |

Mathematics requirement:

| | | |
|--|-------|-------|
| Mathematics through trigonometry and statistics | _____ | _____ |
|--|-------|-------|

Continued on the Following Page

Work in biology as a **minor area** will include the following certification prerequisites:

| | | |
|---------------------------|-------|-------|
| Plant Diversity | _____ | _____ |
| Animal Diversity | _____ | _____ |
| Genetics | _____ | _____ |
| Evolution | _____ | _____ |
| Ecology | _____ | _____ |
| Microbiology | _____ | _____ |
| Cell or Molecular Biology | _____ | _____ |
| Developmental Biology | _____ | _____ |
| Physiology | _____ | _____ |

Examples of courses at SOU that fill the required biology subject areas:

1. Plant Diversity
 - Bi 332 Algae and Fungi
 - Bi 333 Plant Identification and Field Botany
 - Bi 432 Origins and Diversity of Land Plants
 - Bi 433 Plant Systematics
 - Bi 434 Plant Anatomy
2. Animal Diversity
 - Bi 415 Mammalogy
 - Bi 450 Fishery Biology
 - Bi 461, 462 Invertebrate Biology
 - Bi 466 Entomology
 - Bi 470 Herpetology
 - Bi 471 Ornithology
 - Bi 480 Animal Behavior
3. Genetics
 - Bi 341 Genetics
4. Evolution
 - Bi 446 Evolution
5. Ecology
 - Bi 340 Introductory Ecology
 - Bi 453 Community and Population Ecology
 - Bi 454 Plant Ecology
 - Bi 475 Aquatic Ecology
6. Microbiology
 - Bi 214 Elementary Microbiology
 - Bi 351 Microbiology
7. Cell of Molecular Biology
 - Bi 342 Cell Biology
 - Bi 425 Molecular Biology
8. Physiology
 - Bi 231, 232, 233 Human Anatomy and Physiology
 - Bi 314 Comparative Animal Physiology
 - Bi 331 Plant Physiology
 - Bi 413 Physiological Ecology of Animals
 - Bi 414 Advanced Animal Physiology
 - Bi 427 Comparative Vertebrate Anatomy

Continued on the Following Page

TESTING

Admission to the MAT Program in Biology also requires passing scores for one of the following testing categories:

“Basic Skills” Testing.

For this category, an individual may choose the:

California Basic Educational Skill Test (CBEST) ,

--OR --

Praxis Pre-Professional Skills Test (PPST),

--OR --

Computerized PPST

--OR--

“Subject Knowledge” Testing. The qualifying tests for the Biology endorsement are:

20235 Biology: Content Knowledge

NOTE: BOTH “Basic Skills” and “Subject Knowledge” testing are required for completion of the MAT Program.

CONTACTS:

For questions about general MAT Program requirements, please contact:

K.C. Sam, Office Coordinator
School of Education
Southern Oregon University
1250 Siskiyou Blvd.
Ashland OR 97520
541 552-6936
samk@sou.edu

For questions about Biology Endorsement requirements, please contact:

Stewart Janes – SC 219
Southern Oregon University
Biology Department
1250 Siskiyou Blvd
Ashland, OR 97520
(541) 552-6797
janes@sou.edu