

# BIOLOGY MAJOR— Pre-Education Option 2018-2019

This option meets the requirements for most graduate teacher licensure programs, but is NOT designed for the Education Double Degree or informal education master's program in Free-Choice Learning (see other side of this document). See specific program requirements and prerequisites for details.

The courses below prepare students for endorsements to teach middle school integrated science and high school chemistry and biology. It is recommended that Pre-Education option students take COMM 111 \*Public Speaking (3) to complete the Biology major OSU Baccalaureate Core communications requirement.

Courses used to satisfy these requirements also satisfy the upper division science requirements in the Biology major. Previous versions of this option are somewhat different and are tracked in MyDegrees. **All courses and prerequisites are subject to change.**

✓	Course	Pre(Co)requisites	Term	Credits
<b>Science Education Core (13 Credits)</b>				
	ED 309 Field Practicum (3 or more credits involving middle and/or high school experience)		All	3
	HDFS 313 Adolescent Development	Sophomore Standing	All	4
	SED 412/512 Technology Foundations for Teaching Math and Science		W, SU	3
	SED 413/513 Inquiry in Science and Science Education <b>OR</b> SED 416/516 Inquiry in Science and Math Education		W SU	3 3
<b>Chemistry Course (select one course from the following)</b>				
	BB 493 Biochemistry Laboratory Molecular Techniques 1	BB 450	F	3
	CH 324 Quantitative Analysis	CH 233/263	F,W,SP	4
	CH 390 Environmental Chemistry	CH 233/263	F, W, SP	3
<b>Physics Series</b>				
	PH 201, 202, 203 General Physics	MTH 112 (C-)	F, W, SP, SU	5,5,5
<b>Integrated Science Courses (Select two courses)</b>				
	ATS 201 Climate Science	MTH 112	F, W, SP, SU	4
	ATS 310 Meteorology	MTH 251, PH 201, 202 (CH 231)	F,W	4
	GEO 201 Physical Geology		S, SP	4
	GEO 202 Earth Systems Science		W	4
	GEO 203 Evolution of Planet Earth		SP	4
	GEO 221 Environmental Geology		SP	4
	GEO 305 Living with Active Cascade Volcanoes		SP, SU	3
	GEO 306 Minerals, Energy, Water and the Environment		SP	3
	GEO 307 National Park Geology and Preservation		F	3
	GEO 308 Global Change and Earth Science		F,W, SP, SU	3
	GEO 323 Climatology	GEO 101 and GEO 202	SP, SU	4
	OC 201 Oceanography		W, SP	4
	SOIL 205 Soil Science <b>AND</b> SOIL 206 Soil Science Laboratory		F, W SP, SU	3 1

## More Teaching Opportunities

Find out how to get involved at: <http://oregonstate.edu/precollege/>

Volunteering and Internship list: <http://ib.oregonstate.edu/professional/internship-research/intern-volunteer-list/education>

International education internships: <http://ib.oregonstate.edu/professional/international>

# OSU Biology Pre-Education Resources

## Classroom Experience

Experience in the classroom is required for Biology Pre-Education students and is gained through the practicum courses required for the Pre-Ed option (see checklist and description to the right).

Additional experience in a teaching and learning environment is highly recommended. It is important to get experience early on in your academic career to help you determine if a career in education is right for you.

There are abundant opportunities on campus to get teaching experience. Use the resources to the right to get involved in formal and informal education experiences.

## ED 309 (required for option)

To enroll in ED 309, you are required to complete fingerprinting and a criminal history background check through the College of Education to receive an override. If you're interested in registering for either of the options go to Furman Hall room 104 for required paperwork.

ED 309 requires that you meet your practicum hours during the academic term. The first class session attendance is mandatory, and you'll be matched with a local teacher during the first class session. There are 4 mandatory class sessions throughout the term.

## BI 309 and BI 409

BI 309/409 offers students a unique opportunity to work collaboratively with faculty in delivering biological science instruction at the college level. This experience will provide formal training in strategies for successful instructional techniques related to implementing learning activities in classroom and laboratory settings. Students will also work on developing and piloting teaching tools while honing basic biology skills and knowledge. This option is especially valuable for students aspiring to teach biology in a high school (AP) or community college setting.

## OSU Licensure Programs in Education

### **OSU MS in Education (Science Education)**

<http://education.oregonstate.edu/master-science-education>

For more information, contact :  
Carol McKiel: 541-737-1546

### **OSU Education Double Degree**

*(Not designed for the BI Pre-Education Option)*

<http://education.oregonstate.edu/double-degree>

### **Graduate Options Informal Education**

OSU's Free-Choice Learning Program prepares for teaching in areas such as:

- Interpretive centers & Outreach
- National and State Parks
- Zoos/aquariums, nature centers

<http://education.oregonstate.edu/free-choice-learning>

## **Other Teaching Resources**

### Oregon

#### **Teacher Standards and Practices Commission**

Oregon's licensing agency for all educators

<http://www.oregon.gov/TSPC/Pages/index.aspx>

### National

Teacher certification map

<http://certificationmap.com/>

U.S. Department of Education

<http://www.ed.gov/>

National Science Teachers Association

<http://www.nsta.org/>

National Education Association

<http://www.nea.org/>

Oregon Science Teachers Association

<http://www.oregonscience.org/>