

# BIOLOGY PRE-MAJOR FOR ASSOCIATE IN SCIENCE

Department Co-Chair: Stephanie Blumer, 847.376.7424, [biologychair@oakton.edu](mailto:biologychair@oakton.edu)

Department Co-Chair: Nicole Perry, 847.376.7086, [biologychair@oakton.edu](mailto:biologychair@oakton.edu)

The following pre-major is recommended for students who are considering completing a Bachelor's of Science degree in Biology after transferring to a four-year institution. It is designed for students who have not decided upon a specific four-year college or university. Once a transfer school is selected, students are strongly encouraged to consult the Office of Advising, Transitions, and Student Success and the transfer institution's catalog to select courses that will meet both Oakton and transfer institution requirements.

For more information on course selection or program-specific advising, contact the department chair. Part time students should also consult the Office of Advising, Transitions, and Student Success for part-time pre-major recommendations. **General Education courses should be selected from the list of IAI General Education Courses.**

## First Year

Semester One		Hours
EGL 101	Composition I	3
SPE 103	Effective Speech	3
MAT 250	Calculus I <sup>1</sup>	5
CHM 121	General College Chemistry I	4
<b>Hours</b>		<b>15</b>

## Semester Two

EGL 102	Composition II	3
BIO 121	General College Biology I	4
CHM 122	General College Chemistry II	4
Select one of the following: <sup>8</sup>		4
MAT 131	Elementary Statistics	
MAT 251	Calculus II	
<b>Hours</b>		<b>15</b>

## Second Year

Semester One		Hours
BIO 122	General College Biology II	4
Select one of the following: <sup>2,9</sup>		4-5
CHM 207	Elementary Organic Chemistry	
CHM 221	Organic Chemistry I	
CHM 223	Organic Chemistry I	
Select one of the following: <sup>2,10</sup>		3-5
BIO 104	Human Genetics <sup>3</sup>	
BIO 105	Human Genetics <sup>3</sup>	
BIO 106	Introduction to Environmental Science <sup>4</sup>	
BIO 107	Ecological Restoration	
BIO 109	Plants and Society <sup>4</sup>	
BIO 110	Sex, Gender and Health	
BIO 112	Essentials of Nutrition	
BIO 231	Human Anatomy and Physiology I	
BIO/CHM 240	Interdisciplinary Undergraduate Laboratory Research	
PHY 131	College Physics I <sup>11</sup>	
PHY 221	General Physics I <sup>11</sup>	
Select one of the following:		3
PSC 101	American Government	
PSY 101	Introduction to Psychology	
SOC 101	Introduction to Sociology <sup>5</sup>	

SOC 103	Social Problems <sup>6</sup>	
<b>Hours</b>		<b>14-17</b>
<b>Semester Two</b>		
Select one of the following:		3
ANT 102	Introduction to Social and Cultural Anthropology <sup>6</sup>	
PSC 202	International Relations <sup>4</sup>	
PSY 120	Human Development	
SOC 230	Sociology of Sex and Gender <sup>5</sup>	
SOC 232	Sociology of Race and Ethnicity <sup>5</sup>	
Select one of the following:		3
ART 114	Art History: Art of the Non-Western World <sup>4</sup>	
HUM 124	African-American Culture and the Arts <sup>5</sup>	
HUM 131	Introduction to Theater	
HUM 165	Introduction to World Music <sup>4</sup>	
MUS 236	Music Literature and History	
Select two courses of at least 7 credit hours from the following: <sup>2,10</sup>		7-8
BIO 104	Human Genetics <sup>3</sup>	
BIO 105	Human Genetics <sup>3</sup>	
BIO 106	Introduction to Environmental Science <sup>4</sup>	
BIO 107	Ecological Restoration	
BIO 109	Plants and Society <sup>4</sup>	
BIO 110	Sex, Gender and Health	
BIO 112	Essentials of Nutrition	
BIO 232	Human Anatomy and Physiology II	
BIO/CHM 240	Interdisciplinary Undergraduate Laboratory Research	
BIO 251	Microbiology	
CHM 222	Organic Chemistry II <sup>2</sup>	
CHM 224	Organic Chemistry II <sup>2</sup>	
MAT 131	Elementary Statistics	
PHY 132	College Physics II <sup>2</sup>	
PHY 222	General Physics II <sup>2</sup>	
Select one of the following:		3-4
EGL 131	Multicultural Literature in the U.S.	
HUM 142	Women and Creativity <sup>5</sup>	
PHL 205	World Religions <sup>4</sup>	
Modern Language Course (202 <sup>4</sup> or higher) <sup>7</sup>		
<b>Hours</b>		<b>16-18</b>
<b>Total Hours</b>		<b>60-65</b>

<sup>1</sup> Students who do not place into MAT 250 need to work with an academic advisor, math placement coordinator, and/or Biology department chair to determine how to sequence math courses for Biology Pre-major.

<sup>2</sup> If a student starts the PHY 131/PHY 132, PHY 221/PHY 222, BIO 231/BIO 232 or CHM 221/CHM 222 or CHM 223/CHM 224 sequence at Oakton, he or she should complete both courses in the sequence at Oakton taking one in semester 3 and one in semester 4 as some of the major electives.

<sup>3</sup> Credit cannot be received for both BIO 104 and BIO 105.

<sup>4</sup> Course fulfills the Global Studies requirement. At least one Global Studies course is required for degree completion.

<sup>5</sup> Course fulfills the U.S. Diversity Studies requirement. At least one U.S. Diversity Studies course is required for degree completion.

<sup>6</sup> Course fulfills both the Global Studies and U.S. Diversity Studies requirements.

<sup>7</sup> Transfer institutions may have a language requirement. Any Modern Language Intermediate II course can meet the Humanities and Global Studies requirements.

## Transfer-related Notes:

- <sup>8</sup> Students should check with their transfer institution to determine if they need one semester of calculus or two semesters of calculus for a biology major. Students who do not take MAT 251 Calculus II should take MAT 131 Elementary Statistics. Students who need two semesters of calculus can choose MAT 131 as a major elective. This will depend greatly on the transfer institution and biology major pathway at that institution.
- <sup>9</sup> Students should check with their transfer institution to determine if they need one semester of organic chemistry or two semesters of organic chemistry. Students who need one semester of organic chemistry should take CHM 207. Students who need two semesters of organic chemistry should take either CHM 221/CHM 222 or CHM 223/CHM 224. Students may take CHM 221 and CHM 222 in place of CHM 223 and CHM 224. However CHM 221 and CHM 222 are only offered in the summer, and CHM 223/CHM 224 are offered during the academic year. Students should check with their transfer institution to determine if they need to have organic chemistry with one three hour lab per week (CHM 221/CHM 222) or two three hour labs per week (CHM 223/CHM 224).
- <sup>10</sup> Students need to check with their transfer institution to determine if BIO 104, BIO 105, BIO 106, BIO 107, BIO 109, BIO 110, BIO 112, BIO 231, BIO 232, BIO 240 or BIO 251 will transfer as Biology electives. BIO 104, BIO 105, BIO 106 and BIO 109 are IAI-approved courses. The best major elective may depend on the biology major pathway at the transfer institution.
- <sup>11</sup> Students should also check with their transfer institution to determine the level of Physics that is needed at their transfer institution. Some Biology majors require calculus based Physics whereas some Biology majors only required algebra based physics (PHY 131/PHY 132).

**Note:** Pre-major is a recommended sequence and selection of courses. See Associate in Science (A.S.) page for degree requirements.