

**Biology Teacher Certification (P-12) – B.S. (BIED)**

Recommended Four-Year Plan (Fall 2014)

This recommended four year plan is provided as an **outline** for students to follow in order to complete their degree requirements within four years. This plan is a **recommendation** and students should only use it in consultation with their academic advisor.

Students should be aware that this plan assumes that no developmental courses are required. If developmental courses are needed, students may have additional requirements to fulfill which do not appear on the four year plan. The following sequence assumes exemption from all basic skills requirements as a result of meeting or exceeding the required scores on the New Jersey College Basic Skills Placement Test.

**First Year**

Fall Semester	HRS	✓✓	Spring Semester	HRS	✓✓
BIOL 112 Principles of Biology I	4		BIOL 113 Principles of Biology II	4	
ENWR 105 College Writing I	3		ENWR 106 College Writing II	3	
See dept. list for MATH sequence	4		See dept. list for MATH sequence	4	
CHEM 120 General Chemistry I	4		CHEM 121 General Chemistry II	4	
GNED 199 Fresh Sem	1		Gen. Ed. K3 Social Sci (EDFD 200)	3	
Gen Ed G- Comp. Science	3		Gen. Ed. I- Physical Education	1	
<b>TOTAL</b>	<b>18</b>		<b>TOTAL</b>	<b>19</b>	

**Second Year**

Fall Semester	HRS	✓✓	Spring Semester	HRS	✓✓
BIOL 230 Cell & Molecular Biology	4		BIOL 213 Introduction to Ecology	4	
CHEM 230 Organic Chemistry I	3		CHEM 231 Organic Chemistry II	3	
CHEM 232 Organic Chemistry I Lab	2		World Cultures	3	
General Ed. C3-Communications	3		Gen. Ed F2- Philosophy/Religion (EDFD 220)	3	
Gen. Ed L- Gen. Ed. Elective (SASE 210)	3		Gen. Ed. K1- Amer/Euro History (EDFD 221)	3	
World Languages	3		World Languages	3	
<b>TOTAL</b>	<b>18</b>		<b>TOTAL</b>	<b>19</b>	

**Third Year**

Fall Semester	HRS	✓✓	Spring Semester	HRS	✓✓
BIOL 380-Genetics	4		Biology Major Elective (Cell & Molecular)	3-4	
PHYS 191 OR PHYS 193 (see dept. seq)	4		PHYS 192 OR PHYS 194 (see dept. sequence)	4	
Earth Science Collateral	4		General Ed. D-Fine and Performing Arts	3	
Gen. Ed F1-World Lit/Gen. Humanities	3		Gen. Ed. K2 Non-Western Cultures	3	
SASE 305 Teaching for Equity and Diversity	3		READ 411 Language & Literacy	3	
SASE 310 Inclusion in Middle & Secondary Schools	1		SASE 314 Assessment of Learning	1	
SASE 312 Education English Language Learners	1		SASE 316 Integrating Tech. Across School Curr.	1	
<b>TOTAL</b>	<b>20</b>		<b>TOTAL</b>	<b>18-19</b>	

**Fourth Year**

Fall Semester	HRS	✓✓	Spring Semester	HRS	✓✓
BIOL 417-Evolutionary Biology	3		SASE 452 Teaching for Learning II	3	
Biology Major Elective (Organismal)	3-4		SASE 453 Student Teaching	8-9	
SASE 450 Fieldwork	3				
SASE 451 Teaching for Learning I	3				
PHED 401 Teaching of Science in Sec. Sch.	4				
Biology Major Elective (Research)	4				
Biology Major Elective (Ecology)	3-4				
<b>TOTAL</b>	<b>23-25</b>		<b>TOTAL</b>	<b>11-12</b>	

