

# Mathematics and Science Department

## Faculty

Department Chair: Dr. Stafford

Mathematics Department Faculty: Dr. Liu, Mr. Roth; Dr. Stetson

Adjunct Mathematics Faculty: Mrs. Hastings

Science Department Faculty: Mr. Burke, Mr. T. Chandler, Mr. Coffman; Mr. Mitchell

## *Biology (BS)*

*First awarded in 2024*

Dr. Stafford, Program Coordinator

## *Aims of Biology*

Graduates of the Biology degree will be prepared for careers in the biological sciences, and advanced study in professional and graduate schools. Biology majors will have a broad, foundational knowledge of biological theory and practices as well as strong content knowledge in the general biology discipline. These knowledge bases should prepare graduates well for work in commercial industries, non-profit research organizations, medical research laboratories, national laboratories, environmental survey companies, and graduate programs.

This degree program is highly structured; therefore, students should carefully follow the scheduling of the applicable four-year plan to avoid extending the time required for degree completion. The department chair must approve any alternative coursework. All alternative coursework must closely align with Florida College course requirements to be considered for approval.

## *General Requirements*

### Entrance Requirements

The following minimum requirements will need to be accomplished for successful admission to the Biology program:

- Completion of the general education requirements – Minimum GPA 2.00
- Selection and assigning of a Biology BS program academic advisor

### Total Semester Hours

Students planning for a bachelor's degree with a Biology major must complete a total of 122 semester hours of accredited college work, with a total of 41 hours at the 3000 or 4000 level. Courses taken under the pass-fail option will not apply toward the 41-hour upper-level total.

### General Education Requirements

Complete the 36 hours of General Education core course requirements including natural science and the physical education requirement.

### Language Requirement

There is no foreign language requirement, but two semesters of foreign language are possible. Students interested in taking a foreign language should talk with their advisor to arrange an academic plan accordingly.

### Quality of Work

- 2.25 GPA or higher
- An overall GPA of at least 2.5 in the biology core and major courses

- A grade of “C” or better for required courses (except for daily Bible courses)

### **Daily Bible Requirement**

All students must take a Bible course each day that they take classes on the Florida College campus. Campus resident students must take a Bible course each day.

### **Residency**

Students must complete 28 hours of their upper division major courses at Florida College.

### **Graduation Ceremony**

Candidates must participate in graduation exercises in the year of completing their other requirements. Any exception must be cleared through the Provost.

### **Lower-Division Required General Education Courses**

STA 2023	Elementary Statistics (3)
PSY 1012	General Psychology (3)

### **Lower-Division Biology Courses Required for Biology Major (40 credit hours)**

BSC 2010C/L	Biological Processes and Lab I (4)
BSC 2011C/L	Biological Processes and Lab II (4)
CHM 1045C/L	General Chemistry and Lab I (4)
CHM 1046C/L	General Chemistry and Lab II (4)
PHY 1053C/L	General Physics and Lab I (4)
PHY 1054C/L	General Physics and Lab II (4)
CHM 2210C/L	Organic Chemistry and Lab I (4)
CHM 2211C/L	Organic Chemistry and Lab II (4)
MAC 2311	Calculus with Analytic Geometry I (4)
MAC 2312	Calculus with Analytic Geometry II (4)

### **Upper-Division Biology Courses for Major (34 credit hours)**

Required 22 credit hours (all majors must complete these courses with ‘C’ or higher)

BCH 3023	Introduction to Biochemistry (3)
MCB 3020C	Microbiology with Lab (4)
PCB 3023	Cell Biology (3)
PCB3063	Genetics (3)
PCB 3063L	General Genetics Laboratory (2)
PCB 4043C	General Ecology and Lab (4)
PHI 3633	Introduction to Biomedical Ethics (3)

Elective hours – 12 upper division hours can be selected from the following courses

BSC 3933	Special Topics in Biology: Nutrition (3)
BSC 3933	Special Topics in Biology: Biological Research (3)
BSC 4930	Special Topics in Biology: Senior Seminar (3)
MCB 4503	Virology (3)
PCB 4234	Immunology (3)
PCB 4843	Cellular and Molecular Neuroscience (3)
PCB 4843L	Cellular and Molecular Neuroscience Lab (2)

Daily Bible course for each semester/Weekly Bible class during capstone experience semester

*RECOMMENDED PLAN FOR Biology Degree (129 HOURS shown)*

<b>Fall – Year One</b>	<b>Hours</b>	<b>Spring – Year One</b>	<b>Hours</b>
BSC 2010C - Bio 1 with Lab	4	BSC 2011C - Biology II with Lab	4
CHM 1045C - General Chemistry & QA I	4	CHM 1046C - General Chem & QA II	4
ENC 1101 - Freshman Composition I	3	ENC 1102 - Freshman Composition II	3
Humanities	3	PE Course	1
REL 1210 - History & Geography: OT	2	REL 1240 - History & Geography: NT	2
TR Daily Bible	1	TR Daily Bible	1
<b>Total</b>	<b>17</b>	<b>Total</b>	<b>15</b>
<b>Fall – Year Two</b>	<b>Hours</b>	<b>Spring – Year Two</b>	<b>Hours</b>
CHM 2210C - Organic Chemistry I	4	Behavioral or Social Science	3
MAC 2311 - Calculus 1	4	CHM 2211C - Organic Chemistry II	4
PSY 1012 - General Psychology	3	HLP 2081 - Health and Wellness	1
Social Science	3	LIT 2371 - OT Poetry & Wisdom Lit.	3
MWF Daily Bible	2	MAC 2312 - Calculus 2	4
TR Daily Bible	1	TR Daily Bible	1
<b>Total</b>	<b>17</b>	<b>Total</b>	<b>16</b>
<b>Fall – Year Three</b>	<b>Hours</b>	<b>Spring – Year Three</b>	<b>Hours</b>
PHY 1053C - General Physics	4	PHY 1054C - General Physics II	4
MWF Daily Bible	1	STA 2023 - Statistics	3
TR Daily Bible	1	MWF Daily Bible	1
BCH 3023 - Intro to Biochemistry	3	TR Daily Bible	1
PCB 3063 - Genetics	3	PCB 3023 - Cell Biology	3
PCB 4043C - Ecology w/ Lab	4	PCB 3063L - General Genetics Lab	2
		PHI 3633 - Intro to Biomedical Ethics	3
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>17</b>
<b>Fall – Year Four</b>	<b>Hours</b>	<b>Spring – Year Four</b>	<b>Hours</b>
SPC 1608 - Public Speaking	3	MWF Daily Bible	1
MWF Daily Bible	1	TR Daily Bible	1
TR Daily Bible	1	BSC 3933 - Nutrition	3
MCB 4503 - Virology	3	BSC 3933 - Biological Research	3
PCB 4234 - Immunology	3	BSC 4930 - Senior Seminar	3
PCB 4843 - Cell Neuroscience	3	MCB 3020C - Microbiology w/ Lab	4
		PCB 4843 - Cell Neuroscience Lab	2
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>17</b>