

# **Biology - Secondary Biology Education**

# Major Requirements

| Lower Division Requirements                | Pre-Req           | Units | Note        |
|--|-------------------|-------|-------------|
| BIO146 General Biology I w/Lab             | -                 | 4     |             |
| BIO148 General Biology II w/Lab            | -                 | 4     | Spring only |
| CHE115 General Chemistry I w/Lab           | CHE102 or HS Chem | 4     |             |
| CHE125 General Chemistry II w/Lab          | CHE115            | 4     | Spring only |
| MAT145 Math Methods in Natural Sciences    | MAT115 or 135     | 4     | Spring only |
| or MAT245 Analytical Geometry & Calculus I | MAT135 or 145     | 4     |             |

| Lower Division Physics Requirements                 | Pre-Req       | Units | Note                      |  |
|---|---------------|-------|---------------------------|--|
| Complete one of the following two-semester sequence | es:           |       |                           |  |
| PHY114 General Physics I w/Lab                      | MAT145 or 245 | 4     | Fall only (entrance exam) |  |
| PHY124 General Physics II w/Lab                     | PHY114        | 4     | Spring only               |  |
| PHY214 Physics for Scientists I w/Lab               | MAT145 or 245 | 4     | Fall only (entrance exam) |  |
| PHY224 Physics for Scientists II w/Lab              | PHY214        | 4     | Spring only               |  |

| Upper Division Requirements           | Pre-Req           | Units | Note        |
|---------------------------------------|-------------------|-------|-------------|
| BIO313 Genetics                       | BIO146            | 4     |             |
| BIO330 Cell & Molecular Biology w/Lab | BIO146 & 148      | 4     | Fall only   |
| BIO380 Biology Seminar                | -                 | 1     | Spring only |
| BIO499 Biology Capstone               | Pre or Co: BIO380 | 2     | Fall only   |
| CHE351 Organic Chemistry I w/Lab      | CHE125            | 4     | Fall only   |
| CHE352 Organic Chemistry II w/Lab     | CHE351            | 4     | Spring only |

| Concentration Requirements         | Pre-Req             | Units | Note                     |
|------------------------------------|---------------------|-------|--------------------------|
| BIO114 General Botany w/Lab        | -                   | 4     | Spring only              |
| BIO302 Ecology w/Lab               | BIO114, 143, or 146 | 4     | Spring only (even years) |
| BIO344 Vertebrate Physiology w/Lab | BIO148 & CHE115     | 4     | Spring only              |
| PHY113 Astronomy                   | -                   | 3     | Fall only                |
| PSC151 Introduction to Geosciences | -                   | 3     |                          |

Total Major Units: 65

Upper Division Major Units: 27

# General Education Requirements

| Competency Requirements | Units | Note  |
|-------------------------|-------|---|
| English Competency      | 3     | ENG113 required                                 |
| Math Competency         | 3     | MAT145 or 245 will fulfill. STA144 recommended. |
| Technology              | 3     | CIS265 recommended                              |
| Foreign Language I      | 3     |   |
| Foreign Language II     | 3     |   |

If you are exempt from a Competency Requirement, add those units to Additional Elective Units Needed.

| Core Curriculum        | Units | Note                                    |
|------------------------|-------|---|
| Behavioral Science     | 6     |   |
| English Composition    | 3     | ENG123 required                         |
| English or Film        | 3     |   |
| Communication Arts     | 3     |   |
| Art or Music           | 3     |   |
| Philosophy             | 3     |   |
| US History             | 3     |   |
| Non-US History         | 3     |   |
| Political Science      | 3     |   |
| Lab Science            | 4     | BIO313 will fulfill. BIO101 recommended |
| Science or Kinesiology | 4     | BIO330 will fulfill                     |
| Christian Studies      | 9     |   |

<sup>\*</sup>Course is interdisciplinary

| <b>Upper Division Requirements</b> | 12 | BIO313 & 330 will fulfill 8 units |
|------------------------------------|----|-----------------------------------|
| Multicultural Requirements         | 9  | ENG123 will fulfill 3 units       |
| Interdisciplinary Requirements     | 9  |                                   |

Total Required GE units: 51

Upper Division Required GE Units: 6

Additional Elective Units Needed: 8

Upper Division Elective Units Needed: 6

### About This Plan

- This plan is not a contract. Curriculum can be subject to change.
- Highlighted courses and fields are major specific.
- Descriptions for all courses can be found in the CBU catalog at insidecbu.calbaptist.edu.
- To graduate, all students need 124 total units, 39 of which must be upper division.
- Courses numbered in the 300's and 400's are upper division.
- GST100, ENG103, and MAT095 count as elective units.

# **Contact Information**

|   | *****                      |  |  |  |
|---|----------------------------|--|--|--|
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| Office of Academic Advising                   | Yeager B150                |  |  |  |
| (951) 343 - 4567                              | advising@calbaptist.edu    |  |  |  |

|  |     | Freshman Year   |                 |   | Sophomore Year   | r   |                 |
|--|-----|---|-----------------|---|--|-----|-----------------|
| Fall Semester  |     | Spring Semester   | Summer Semester | Fall Semester   | Spring Semester  |     | Summer Semester |
| BIO146 General Biology I<br>w/Lab<br>CHE115 General Chemistry  | 4   | BIO148 General Biology II w/Lab 4 CHEM125 General   |                 | BIO330 Cell & Molecular<br>Biology w/Lab  CHE351 Organic Chemistry  | BIO114 General Botany<br>w/Lab<br>CHE352 Organic Chemistry   | 4   |                 |
| I w/Lab  | 4   | Chemistry II w/Lab  |                 | I w/Lab   | II w/Lab   | 4   |                 |
| ENG113 Composition   | 3   | ENG123 Intermediate<br>Composition 3  |                 | Upper Division General<br>Education Course 3  | MAT145 or MAT245   | 4   |                 |
| GST100 Focus   | 1   | General Education Course 3  |                 | General Education Course 3  | General Education Course   | 3   |                 |
| General Education Course<br>(or Math Course if needed)   | 3   | Elective 1  |                 | General Education Course 3  | Elective   | 1   |                 |
|  |     |   | -               |   | 1  | Н   |                 |
|  |     |   |                 |   |  |     |                 |
|  |     |   |                 |   |  |     |                 |
| Total Units:   | 15  | Total Units: 15   | Total Units:    | Total Units: 17   | Total Units:   | 16  | Total Units:    |
|  |     |   |                 |   |  |     |                 |
| ~  | 1   | Junior Year   |                 |   | Senior Year  |     |                 |
| Fall Semester  | /   | Junior Year Spring Semester   | Summer Semester | Fall Semester   | Senior Year Spring Semester  |     | Summer Semester |
| Fall Semester BIO313 Genetics  | 4   |   | Summer Semester | Fall Semester BIO499 Biology Capstone 2   | Spring Semester BIO302 or BIO344 (depending on year)   | 4   | Summer Semester |
|  | 4   | Spring Semester BIO344 or BIO302  | Summer Semester |   | Spring Semester BIO302 or BIO344 (depending on year) Upper Division General Education Course   | 3   | Summer Semester |
| BIO313 Genetics  |     | Spring Semester BIO344 or BIO302 (depending on year)  4   | Summer Semester | BIO499 Biology Capstone 2   | Spring Semester  BIO302 or BIO344 (depending on year) Upper Division General Education Course Upper Division General Education Course  | 3 3 | Summer Semester |
| BIO313 Genetics  PHY114 or PHY214  Upper Division General  | 4   | Spring Semester BIO344 or BIO302 (depending on year)  BIO380 Biology Seminar 1  | Summer Semester | BIO499 Biology Capstone 2 PHY113 Astronomy 3 PSC151 Introduction to 3   | Spring Semester  BIO302 or BIO344 (depending on year) Upper Division General Education Course Upper Division General   | H   | Summer Semester |
| PHY114 or PHY214 Upper Division General Education Course   | 3   | Spring Semester  BIO344 or BIO302 (depending on year)  BIO380 Biology Seminar  PHY124 or PHY224  4                          | Summer Semester | BIO499 Biology Capstone 2  PHY113 Astronomy 3  PSC151 Introduction to Geosciences 3   | Spring Semester  BIO302 or BIO344 (depending on year) Upper Division General Education Course Upper Division General Education Course Elective Course (or GE if                            | 3   | Summer Semester |
| BIO313 Genetics  PHY114 or PHY214  Upper Division General Education Course  General Education Course | 3 3 | Spring Semester BIO344 or BIO302 (depending on year)  BIO380 Biology Seminar  PHY124 or PHY224  General Education Course  3 | Summer Semester | BIO499 Biology Capstone 2  PHY113 Astronomy 3  PSC151 Introduction to Geosciences 3  General Education Course 3                             | Spring Semester  BIO302 or BIO344 (depending on year) Upper Division General Education Course Upper Division General Education Course Elective Course (or GE if additional Math was taken) | 3   | Summer Semester |
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Total Units: 124 (124 units required to graduate)