## **BIOLOGY**

## BACHELOR OF SCIENCE (B.S.)

| CORE Requirements                        | Credits |
|--|---------|
|  |         |
| CORE 090 First Yr Exp.                   | 1       |
| CORE 100 Lib Arts Sem.                   | 3       |
| CORE 110 Effect Writ.                    | 3       |
| CORE 115 or 116 Oral Comm.               | 3       |
| CORE 131 or 133 Civilization             | 3       |
| CORE 140 or 141-145 Forgn.               | 3       |
| CORE 150-159 Soc. Sci. 1                 | 3       |
| CORE 160-164 Literature                  | 3       |
| CORE 170-179 The Arts                    | 3       |
| CORE 180-189 Amer. Studies <sup>1</sup>  | 3       |
| CORE 190-199 Global Studies <sup>1</sup> | 3       |
| CORE 250-259 Syst. Theology              | 3       |
| CORE 260-269 Mor. Theology               | 3       |
| CORE 280 Philos. I                       | 3       |
| CORE 281-289 Philos. II                  | 3       |
|  |         |
| Total Credits for CORE                   | 43      |

| Major<br>Requirements          | Credits | Major<br>Requirements   | Credits |
|--------------------------------|---------|-------------------------|---------|
|                                |         |                         |         |
| _ BIOL 113                     | 3       | CHEM 113                | 3       |
| BIOL 113L                      | 1       | CHEM 113L               | 1       |
| BIOL 210                       | 3       | CHEM 114                | 3       |
| BIOL 210L                      | 1       | CHEM 114L               | 1       |
| BIOL 213                       | 3       | CHEM 241                | 3       |
| BIOL 213L                      | 1       | CHEM 241L               | 1       |
| BIOL 270 <sup>3</sup> (spring) | 1       | CHEM 242                | 3       |
| BIOL 370 <sup>4</sup>          | 2       | CHEM 242L               | 1       |
| BIOL 470 <sup>5</sup> (spring) | 1       | MATH 125                | 4       |
| BIOL Elective*                 | 4       | MATH 128                | 4       |
| BIOL Elective*                 | 4       | PHYS 111                | 3       |
| BIOL Elective*                 | 4       | PHYS 111L               | 1       |
| BIOL Elective*                 | 3       | PHYS 112                | 3       |
| BIOL 490 / RIC6                | 3       | PHYS 112L               | 1       |
|                                |         |                         |         |
|                                |         | Total Credits for Major | 66      |

| Free<br>Electives <sup>2</sup>                          | Credits            |
|---|--------------------|
| Free Elective Free Elective Free Elective Free Elective | 3<br>3<br>3<br>2-3 |
| Total Credits for<br>Free Electives                     | 11-12              |

### Minimum Credits Required for Graduation = 120

\*In addition to the Major Sequence requirements, a Biology Major must also complete a minimum of five (5) upper-level courses (minimum of three with lab). In addition, one of these courses must be research intensive (consult with Biology advisor). Biology majors also have the option to choose a major emphasis in Pre-Health, Molecular Biology, or Ecology (see College Catalog).

| Biology Electives                                |   |  |  |  |  |
|--|---|--|--|--|--|
| BIOL 310 Computer Modeling in Biology & Env. Sci | BIOL 349 Animal Behavior                | BIOL 416 Parasitology                    |  |  |  |
| BIOL 314 Microbiology                            | BIOL 350 Vertebrate Embryology          | BIOL 420 Botany                          |  |  |  |
| BIOL 323 Genetics                                | BIOL 353 Biochemistry                   | BIOL 430 Ecology                         |  |  |  |
| BIOL 326 Immunology                              | BIOL 355 Comparative Vertebrate Anatomy | BIOL 447 Physiology                      |  |  |  |
| BIOL 330 Introductory Bioinformatics             | BIOL 380 Neuroendocrinology             | BIOL 450 Molecular Genetics: DNA Science |  |  |  |
| BIOL 336 Cell Biology                            | BIOL 401 Special Topics in Env. Science | BIOL 456 Molecular Neuroscience          |  |  |  |

<sup>1</sup>Students are required to take CORE 150, CORE 180 **OR** CORE 190 to fulfill the Interdisciplinary CORE requirement.

- If a student takes CORE 150, then he/she should choose from 181 188 to fulfill the 18x requirement AND from 191 198 to fulfill the 19x requirement.
- If a student takes CORE 180, then he/she should choose from 151 158 to fulfill the 15x requirement AND from 191 198 to fulfill the 19x requirement.
- If a student takes CORE 190, then he/she should choose from 151 158 to fulfill the 15x requirement AND from 181 188 to fulfill the 18x requirement.

2Students may select "free electives" for personal enrichment **OR** for Minor and/or Second Major Requirements.

#### **General Information:**

A student must earn a minimum of 120 credit hours to be awarded the baccalaureate degree. The number of credit hours required for graduation may be higher in certain major programs <u>or</u> if the student elects to pursue a second major.

Beyond the requirements of the Core Curriculum and of a student's chosen major program, the balances of the credit hours required for graduation are "free electives."

<sup>&</sup>lt;sup>3</sup>Sophomore Seminar – Spring Semester of Sophomore Year

<sup>&</sup>lt;sup>4</sup>Junior Seminar - Fall or Spring Semester of Junior Year

<sup>&</sup>lt;sup>5</sup>Senior Seminar – Spring Semester of Senior Year

<sup>&</sup>lt;sup>6</sup>Research requirement: Biology 490 or Biology Elective that is designated as a Research intensive course (RIC)

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## SUGGESTED SEQUENCE

- Use the information below as a guide when selecting courses.
- Refer to the reverse side when selecting major courses, major electives, core courses, and free electives when applicable.
- Consult your Academic Advisor prior to course registration.
- Refer to the King's College Catalog and/or website for course titles and descriptions.
- Choose one course from each CORE category as listed on the reverse side.
  - O CORE courses may be taken in any order approved by the academic advisor with the following conditions:
    - CORE 100 and CORE 110 should be taken in the first year.
    - CORE 115 (or 116) should be taken within the first two years.
    - For students selecting a Foreign Language (CORE 14x), every effort should be made to register for that language in the first semester at King's.

| 1st Year - Fall                                 | cr.   | 1st Year - Spring                              | cr.             |  |  |  |
|---|---|--|-----------------|--|--|--|
| BIOL 113 Evolution & Diversity                  | 3   | BIOL 210 Organisms & Their Ecosystems          | 3               |  |  |  |
| BIOL 113L Evolution & Diversity Lab             | 1   | BIOL 210L Organisms & Their Ecosystems Lab     | 1               |  |  |  |
| CHEM 113 General Chemistry I                    | 3   | CHEM 114 General Chemistry II                  | 3               |  |  |  |
| CHEM 113L General Chemistry I Lab               | 1   | CHEM 114L General Chemistry II Lab             | 1               |  |  |  |
| CORE  | 3   | MATH 125 Calculus                              | 4               |  |  |  |
| CORE  | 3   | CORE   | 3               |  |  |  |
| CORE 090 First Year Experience                  | 1   |  |                 |  |  |  |
|   | 15 <sup>†</sup>   |  | 15 <sup>†</sup> |  |  |  |
| 2 <sup>nd</sup> Year - Fall                     |   |  |                 |  |  |  |
| BIOL 213 Cell & Molecular Biology               | 3   | BIOL Elective*                                 | 3               |  |  |  |
| BIOL 213L Cell & Molecular Biology Lab          | 1   | BIOL 270 <sup>3</sup> Sophomore Seminar        | 1               |  |  |  |
| CHEM 241 Organic Chemistry I                    | M 241 Organic Chemistry I 3 CHEM 242 Organic Chemistry II |  | 3               |  |  |  |
| CHEM 241L Organic Chemistry I Lab               | 1   | CHEM 242L Organic Chemistry II Lab             | 1               |  |  |  |
| MATH 128 Intro. to Statistics & Data Analysis   | 4   | CORE   | 3               |  |  |  |
| CORE  | 3   | CORE   | 3               |  |  |  |
|   | 15  |  | <b>14</b> †     |  |  |  |
| 3 <sup>rd</sup> Year – Fall                     |   | 3rd Year - Spring                              |                 |  |  |  |
| PHYS 111 Physics for the Life Sciences I        | 3   | PHYS 112 Physics for the Life Sciences II      | 3               |  |  |  |
| PHYS 111L Physics for the Life Sciences I Lab   | 1   | PHYS 112L Physics for the Life Sciences II Lab | 1               |  |  |  |
| BIOL Elective*                                  | 3   | BIOL Elective*                                 | 3               |  |  |  |
| BIOL 3704 Junior Seminar                        | 2   | BIOL Elective Lab*                             | 1               |  |  |  |
| CORE  | 3   | CORE   | 3               |  |  |  |
| CORE  | 3   | Free Elective <sup>2</sup>                     | 3               |  |  |  |
|   |   | Free Elective <sup>2</sup> †                   | 2-3†            |  |  |  |
|   | 15  |  | 16-17           |  |  |  |
| 4th Year - Fall                                 |   | 4th Year - Spring                              |                 |  |  |  |
| BIOL 490 or RIC <sup>6</sup> Elective with lab* | 4   | BIOL 470 <sup>5</sup> Senior Seminar           | 1               |  |  |  |
| CORE  | 3   | BIOL Elective*                                 | 3               |  |  |  |
| CORE  | 3   | BIOL Elective Lab*                             | 1               |  |  |  |
| CORE  | 3   | CORE   | 3               |  |  |  |
| Free Elective <sup>2</sup>                      | 3   | CORE   | 3               |  |  |  |
|   |   | Free Elective <sup>2</sup>                     | 3               |  |  |  |
|   | 16  |  | 14              |  |  |  |
| Minimum Credits Required for Graduation = 120   |   |  |                 |  |  |  |

 $^{\dagger}$ The standard semester course load is five courses consisting of 15 – 17 credits. A student may take 18 credits if the science lab puts them over 17 credits (for more information about credit loads, please see the college catalog).