**Biology / Secondary Education**

**Course Requirements Fall 2011 / Spring 2012**

* **Required courses for a major in Biology.**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **CORE Requirements** | **Credits** |  |  | **Major Requirements** | **Credits** |  | **Major Requirements** | | **Credits** | |  |  | | **Secondary Education** | | **Credits** |
|  |  |  |  |  |  |  |  |  | |  | |  |  | |  | |  |
|  | CORE 090 | 1 |  |  | BIOL 111 | 3 |  | BIOL 112 | | 3 | |  |  | | EDUC 202 | | 3 |
|  | CORE 100 | 3 |  |  | BIOL 111L | 1 |  | BIOL 112L | | 1 | |  |  | | EDUC 231 | | 1 |
|  | CORE 110 | 3 |  |  | BIOL 223 | 3 |  | BIOL 224 | | 3 | |  |  | | EDUC 2352 | | 3 |
|  | CORE 115 or 116 | 3 |  |  | BIOL 223L | 1 |  | BIOL 224L | | 1 | |  |  | | EDUC 2402 | | 3 |
|  | CORE 131 or 133 | 3 |  |  | BIOL 3703 | 2 |  | BIOL 4904 | | 4 | |  |  | | EDUC 270 | | 3 |
|  | CORE 140 or 141 – 146 | 3 |  |  | CHEM 113 | 3 |  | CHEM 114 | | 3 | |  |  | | EDUC 3022 | | 3 |
|  | CORE 1501 – 158 | 3 |  |  | CHEM 113L | 1 |  | CHEM 114L | | 1 | |  |  | | EDUC 3052 | | 3 |
|  | CORE 161 – 164 | 3 |  |  | CHEM 241 | 3 |  | CHEM 242 | | 3 | |  |  | | EDUC 331 | | 1 |
|  | CORE 171 – 179 | 3 |  |  | CHEM 241L | 1 |  | CHEM 242L | | 1 | |  |  | | EDUC 3502,5 | | 3 |
|  | CORE 1801 – 188 | 3 |  |  | MATH 125 | 4 |  | MATH 128 | | 4 | |  |  | | EDUC 3662 | | 3 |
|  | CORE 1901 – 198 | 3 |  |  | PHYS 111 | 3 |  | PHYS 112 | | 3 | |  |  | | EDUC 440 | | 3 |
|  | CORE 250 – 259 | 3 |  |  | PHYS 111L | 1 |  | PHYS 112L | | 1 | |  |  | | EDUC 4672 | | 7 |
|  | CORE 260 – 269 | 3 |  |  | BIOL Emphasis I, II or III\* | | | 4 | | | |  |  | | EDUC 4682 | | 2 |
|  | CORE 280 | 3 |  |  | BIOL Emphasis I, II or III\* | | | 4 | | | |  |  | |  | |  |
|  | CORE 281 – 289 | 3 |  |  | BIOL Emphasis I, II or III\* | | | 3 | | | |  |  | |  | |  |
|  |  |  |  |  | BIOL Emphasis I, II or III\* | | | 3 | | | |  |  | |  | |  |
|  |  |  |  |  |  | | | |  | |  | | | Total Credits for Secondary Education | |  | |
|  | Total Credits for CORE | 43 |  |  | Total Credits for Major | | | | 68 | |  | | | 38 | |

**Total Credits Required for Graduation = 149**

\*In addition to the Major Sequence requirements, a Biology Major must also complete a minimum or four (4) upper-level courses. Biology majors can choose to take courses within one of three emphases, as outlined below. **Certain emphases require the completion of required upper level courses (\*\*)**. A student who does not complete the requirements of any emphasis, but does complete four (4) upper-level courses will earn a General Biology degree. At least two of these courses must include a laboratory component. (Some courses will require the laboratory component, as determined by the instructor).

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Emphasis I:**  **Pre-Health** | | **Emphasis II:**  **Molecular Biology** | | **Emphasis III:**  **Ecology** | |
| \*\*BIOL 355 | BIOL 350 | \*\*BIOL 450 | BIOL 336 | \*\*BIOL 430 | BIOL 401 |
| \*\*BIOL 447 | BIOL 360 | BIOL 314 | BIOL 451 | BIOL 310 | BIOL 416 |
| BIOL 314 | BIOL 416 | BIOL 326 | BIOL 453 | BIOL 314 | BIOL 420 |
| BIOL 326 | BIOL 456 | BIOL 330 | BIOL 456 | BIOL 349 | BIOL 447 |
| BIOL 336 |  |  |  | BIOL 355 | ENST 410 |

1Students 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.

2Updated Child Abuse & Criminal Record & FBI Clearances **REQUIRED** for EDUC 235, EDUC 240, EDUC 302, EDUC 305, EDUC 350, EDUC 366, EDUC 467 and EDUC 468.

3Sophomore/Junior Diagnostic Project (Fall or Spring Semester of Junior Year)

4Senior Integrated Assessment (Fall or Spring Semester of Senior Year)

5PRAXIS I must be passed before taking EDUC 350.

**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 **or** 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.” **Because of the CORE, Major, and Secondary Education requirements, there are no “Free Electives” for students majoring in Biology/Secondary Education.**

**Biology / Secondary Education**

**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.
  + 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.
    - If CORE 098, CORE 099, and/or CORE 110L is required, then the student will need to take summer courses to graduate within 4 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 111 | 3 |  |  | BIOL 112 | 3 |
|  | BIOL 111L | 1 |  |  | BIOL 112L | 1 |
|  | CHEM 113 | 3 |  |  | CHEM 114 | 3 |
|  | CHEM 113L | 1 |  |  | CHEM 114L | 1 |
|  | MATH 128 | 4 |  |  | MATH 125 | 4 |
|  | CORE | 3 |  |  | CORE | 3 |
|  | CORE 090 | 1 |  |  | CORE | 3 |
|  |  | **16** |  |  |  | **18** |
|  | **2nd Year - Fall** |  |  |  |  |  |
|  | BIOL 223 | 3 |  |  | BIOL 224 | 3 |
|  | BIOL 223L | 1 |  |  | BIOL 224L | 1 |
|  | CHEM 241 | 3 |  |  | CHEM 242 | 3 |
|  | CHEM 241L | 1 |  |  | CHEM 242L | 1 |
|  | CORE | 3 |  |  | CORE | 3 |
|  | EDUC 202 | 3 |  |  | EDUC 2402 | 3 |
|  | EDUC 2352 | 3 |  |  | EDUC 3052 | 3 |
|  |  | **17** |  |  | EDUC 231 | 1 |
|  | **PRAXIS I**5 (PPST’s taken and passed) |  |  |  |  | **18** |
|  | **Admission to Candidacy** (Complete and return “Application for Teacher Education Program Candidacy” to Education Administrative Assistant no sooner than the completion of 48 credits and no later than 65 credits) | | | | | |
|  | **3rd Year – Fall** |  |  |  | **3rd Year – Spring** |  |
|  | PHYS 111 | 3 |  |  | PHYS 112 | 3 |
|  | PHYS 111L | 1 |  |  | PHYS 112L | 1 |
|  | BIOL Emphasis I, II or III\* | 3 |  |  | BIOL Emphasis I, II or III\* | 3 |
|  | BIOL 3704 | 2 |  |  | BIOL Emphasis I, II or III Lab\* | 1 |
|  | CORE | 3 |  |  | CORE | 3 |
|  | CORE | 3 |  |  | CORE | 3 |
|  | EDUC 3662 | 3 |  |  | EDUC 270 | 3 |
|  |  |  |  |  | EDUC 331 | 1 |
|  |  | **18** |  |  |  | **18** |
|  | **4th Year - Fall** |  |  |  | **4th Year - Spring** |  |
|  | BIOL Emphasis I, II or III\* | 3 |  |  | BIOL Emphasis I, II or III\* | 3 |
|  | BIOL 4905 | 4 |  |  | BIOL Emphasis I, II or III Lab\* | 1 |
|  | CORE | 3 |  |  | CORE | 3 |
|  | CORE | 3 |  |  | CORE | 3 |
|  | EDUC 3022 | 3 |  |  | CORE | 3 |
|  |  |  |  |  | EDUC 3502,5 | 3 |
|  |  | **16** |  |  |  | **16** |
|  | **5th Year - Fall** |  |  |  |  |  |
|  | EDUC 4672 | 7 |  | **Students who wish to finish in four (4) years (including Student Teaching)**  **MUST take summer courses.** | | |
|  | EDUC 4682 | 2 |  |
|  | EDUC 440 | 3 |  |
|  | **Take Praxis II** |  |  |
|  |  | **12** |  |  |  |  |
| **Total Credits Required for Graduation = 149** | | | | | | |

**NOTE:** All Secondary Teacher Certification candidates must complete six credits of college level mathematics and six credits of college level English:

|  |  |  |
| --- | --- | --- |
| **Math Courses** | MATH 125 | MATH 128 |
| **English Courses** | CORE 110 | CORE 16\_\_ |

The Pennsylvania Department of Education requires secondary teachers to have a degree in the content area for certification. Students seeking secondary certification must meet with his/her specific content area department for content area courses required for the degree. The Education Division is not responsible for content area or CORE courses for secondary certification candidates.