|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Bachelor of Science (B.S.) Degree:**  **Biology and Chemistry**  **(Double Major)** | |  | | | | | | |
| **2013-2014**  **Courses in BOLD are required by this major**  **Courses in regular type are to fulfill general education requirements and DO NOT have to be taken the specific semester stated.**  ***Courses in ITALIC are strongly recommended***  **ALSO REQUIRED FOR GRADUATION**   * **124 credit hours** * **2 Winter Terms** * **39 Upper division credits** * **2.00 GPA** * **Completion of all major & gen ed requirements** |  | |  | | | | | | |
|  | **First Year Fall**  ***(consider a WT)*** | **GE Goal** | | **Sem Hours** | **Date Met** | **First Year Spring** | **GE Goal** | **Sem Hours** | **Date Met** |
|  | **BIOL1500 Fund of Ecol & Evol** | **1a** | | **3** |  | **BIOL1520 Fund of Org. Biology** | **1d** | **4** |  |
|  | ENGL1410 Modern Rhetoric OR  ENGL1440 English Honors | **3C** | | **3** |  | Speech Communication | 3b | **3** |  |
|  |  |  | |  |  | **CHEM1440/1441 Prin. Chem. II w/lab** |  | **4** |  |
|  | **MATH1510 Calculus I** | **3a** | | **3** |  | **MATH1520 Calculus II** | **3a** | **3** |  |
|  |  |  | |  |  | HLTH1300 Lifetime Health/Fitness Lab | 3f | 2 |  |
|  | **CHEM1430/1431 Prin of Chem I w/lab** |  | | **4** |  | PE Activity | 3f |  |  |
|  | INTD1100 Critical Thinking in Arts & Sciences\* |  | | **3** |  |  | | | |
|  | *CSIT1050 Comp. Based Acad. Research\*\** |  | | *1* |  |  | | | |
|  | **Total Hours** |  | |  |  | **Total Hours** |  |  |  |
|  | **Notes:** | | | | | | | | |
|  | **Second Year Fall**  ***(consider a WT)*** | **GE Goal** | | **Sem**  **Hours** | **Date Met** | **Second Year Spring** | **GE Goal** | **Sem Hours** | **Date Met** |
|  | **CHEM3410/3411 Organic Chem I w/lab** |  | | **4** |  | **CHEM3420/3421 Org. Chem II w/lab** |  | **4** |  |
|  | **PHYS1410 Elements of Phys I w/lab** |  | | **4** |  | **PHYS1420 Elements of Phys II w/lab** |  | **4** |  |
|  | Arts | 2a | |  |  | **BIOL2xxx Fund of Cell Bio & Gen** |  | **4** |  |
|  | History/Political Science | 1b | |  |  | Human Diversity | 4 |  |  |
|  | **Biology Elective Choice \*\*\*** |  | |  |  | Humanities | 2b |  |  |
|  | **Total Hours** |  | |  |  | **Total Hours** |  |  |  |
|  | **Notes:** | | | | | | | | |
|  | **Third Year Fall**  ***(check your degree audit!)*** | **GE Goal** | | **Sem**  **Hours** | **Date Met** | **Third Year Spring** | **GE Goal** | **Sem Hours** | **Date Met** |
| **\* See Catalog for specific information**  **+denotes courses offered only every other year** | **CHEM3610+Phys Chem I** (odd fall) |  | | **4** |  | **CHEM3620+ Phys. Chem II** *(even spring)* |  | **4** |  |
|  | CSIT1020 Microsoft Word and PP \*\* |  | |  |  | Ethics &Values | 3e | **3** |  |
|  | **CHEM4310 Biochem** |  | | **4** |  |  |  |  |  |
|  | **Biology Elective Choice \*\*\*** |  | |  |  | **Biology Elective Choice \*\*\*** |  |  |  |
|  |  |  | |  |  | **CHEM3410 Chem Seminar I** |  | **1** |  |
|  |  |  | |  |  | elective |  |  |  |
|  | **Total Hours** |  | |  |  | **Total Hours** |  |  |  |
|  | **Notes:** | | | | | | | | |
|  |  | | | | | | | | |
|  | **Fourth Year Fall**  ***(apply for graduation! Check Degree Audit!)*** | **GE Goal** | | **Sem**  **Hours** | **Date Met** | **Fourth Year Spring** | **GE Goal** | **Sem Hours** | **Date Met** |
|  | Elective |  | |  |  | **CHEM4130 Research II** |  | **1** |  |
|  | **CHEM4330+ Instr. Analysis** *(even fall)* |  | | **4** |  | **CHEM3300+ Anal. Chem** *(odd spring)* |  | **4** |  |
|  | **CHEM4120 Research I** |  | | **1** |  | **BIOL4130 Bio Research II** |  | **1** |  |
|  | **BIOL4110 Bio. Seminar** |  | | **1** |  | *Strongly recommended bio course \*\*\*\** |  |  |  |
|  | **BIOL4120 Bio Research I** |  | | **1** |  | ENGL3XXX Advanced Comp |  |  |  |
|  | **Biology Elective Choice****\*\*\*** |  | |  |  | **CHEM4110 Chem Seminar II** |  | **1** |  |
|  | Social/Behavioral Science | 1c | | 3 |  |  | | | |
|  | *CSIT1030 Microsoft Excel\*\** |  | | 1 |  |  | | | |
|  | **Total Hours** |  | |  |  | **Total Hours** |  |  |  |
|  | **Notes:** | | | | | | | | |
| **Updated:**  **9/25/13** |  | | | | | | | | |
|  | **\* Graduation requirement for all first time freshmen**  **\*\*** *These computer courses are strongly recommended for the major.*  \*\*\* Choose four of the following courses in at least two areas (13-16 sh) **AREA 1**: BIOL2360, 2430, 2440, 3400 **AREA 2**: BIOL3310, 3500, 4310, 4450, 4460 **AREA 3**: BIOL3420, 3440, 4400  \*\*\*\*For students planning to attend professional or graduate school, there are several strongly recommended bio courses: **Professional School Recommendations:** BIOL3120, BIOL3420, BIOL3440, BIOL4310, BIOL4450 **Graduate School Recommendations:** BIOL3120, 3 biology electives depending on field of interest **Please meet with your faculty advisor to discuss these recommended courses.**  **DISCLAIMER: These plans are to be used as guides only and are subject to changes in curriculum requirements. Refer to your Graceland Catalog for complete and accurate information. Some courses listed on the plans may have prerequisites that have not been stated. The student has the ultimate responsibility for scheduling and meeting the graduation requirements.** | | | | | | | | |
| **Name:**  **ID:** |  | | | | | | | | |
|  |  | | | | | | | | |

