**THE UNIVERSITY OF PUGET SOUND**

2015-2016 CURRICULUM GUIDE

**BIOLOGY: MOLECULAR AND CELLULAR**

DEGREE: BS

CONTACT PERSON: ALYCE DEMARAIS

|  |  |
| --- | --- |
| **A suggested four-year program:** |  |
| *Fall Semester Classes* |  | *Spring Semester Classes* |  |
|  |  |  |  |
| **Freshman** | **Units** |  | **Units** |
|  |  |  |  |
| SSI1 | 1 | SSI2 | 1 |
|  |  |  |  |
| BIOL 111/lab (NS core) | 1 | BIOL 1123 or Elective | 1 |
| CHEM 110/lab or CHEM 115/lab1 | 1 | CHEM 120/lab or CHEM 230/lab1 | 1 |
| FL (if needed) or MATH 180 or 1812 (MA | 1 | FL (if needed) or MATH 1812 or elective | 1 |
| core) |  |  |  |
|  |  |  |  |
|  |  |  |  |
| **Sophomore** | **Units** |  | **Units** |
|  |  |  |  |
| BIOL elective3 or elective | 1 | BIOL 212/lab or elective | 1 |
| CHEM 250/lab | 1 | CHEM 251/lab | 1 |
|  |  |  |  |
| Approaches core | 1 | Approaches core or CHEM 231 (if needed)4 | 1 |
| Elective or MATH 180 or 1812 | 1 | Elective or MATH 1812 | 1 |
|  |  |  |  |
| **Junior** | **Units** |  | **Units** |
|  |  |  |  |
| BIOL 212/lab5 or elective | 1 | BIOL 311/lab5 | 1 |
| CHEM 460/lab | 1 | CHEM 461/lab | 1 |
|  |  |  |  |
| Approaches core | 1 | BIOL elective (300+)3 | 1 |
| Elective | 1 | Elective | 1 |
|  |  |  |  |
|  |  |  |  |
| **Senior** | **Units** |  | **Units** |
| PHYS 111/121 | 1 | PHYS 112/122 | 1 |
|  |  |  |  |
| CN core6 | 1 | BIOL 404 or Elective | 1 |
| BIOL 404 or Elective | 1 | Elective | 1 |
|  |  |  |  |
| Elective | 1 | Elective | 1 |
|  |  | **Puget Sound requires a total of 32 units to graduate.** |  |
|  |  |  |  |

**NOTES:**

1. Chemistry should be taken in the first year. First-year Chemistry requirements: CHEM 110 and 120 or CHEM 115 and 230.
2. Math may be delayed for a year or two. Math 260 may substitute for MATH 181.
3. Two additional units in Biology are required, one of which must be at the 300-400 level, excluding 361 and 398. Students with an interest in evolutionary, environmental, or ecological applications should strongly consider BIOL 112 or 360 as their electives. BIOL 112 may be taken during the freshman year and is strongly encouraged.
4. Students who satisfy the first-year Chemistry requirement with CHEM 110 and 120 must also complete CHEM 231 prior to enrolling in CHEM 460.
5. Recommended that BIOL 212 be taken before BIOL 311.
6. Of the three units of upper division coursework required outside the first major, the Connections course will count for one unless it is used to meet a major requirement

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COURSE CHECKLIST

**BIOLOGY: MOLECULAR AND CELLULAR**

|  |  |  |
| --- | --- | --- |
| UNIVERSITY CORE |  CRS TERM | GRADE |
|  |  |  |

 **CORE CURRICULUM** **MAJOR REQUIREMENTS**

|  |  |  |  |
| --- | --- | --- | --- |
| COURSE | UNITS | TERM | GRADE |
| BIOL 111\* |  |  |  |
| BIOL 212 |  |  |  |
| BIOL 311 |  |  |  |
| BIOL 404 |  |  |  |
| Biology electives: \*\* |  |  |  |
| 1. Any level |  |  |  |
|  2. 300+ |  |  |  |
| CHEM 110\*\*\* or 115 |  |  |  |
| CHEM 120\*\*\* or 230 |  |  |  |
| CHEM 250 |  |  |  |
| CHEM 251 |  |  |  |
| CHEM 460 |  |  |  |
| CHEM 461 |  |  |  |
| MATH 180\*\*\*\* |  |  |  |
| MATH 181 or 260\*\*\*\* |  |  |  |
| PHYS 111 or 121 |  |  |  |
| PHYS 112 or 122 |  |  |  |

SSI1

SSI2

AR

HM

MA (MATH 180)

NS (CHEM 110)

SL

CN

**KEY**

SSI1= Seminar in Scholarly Inquiry1 MA= Mathematical Approaches

SSI2= Seminar in Scholarly Inquiry2 NS= Natural Scientific Approaches

AR= Artistic Approaches SL= Social Scientific Approaches

HM= Humanistic Approaches CN= Connections

FL= Foreign Language

**NOTES**

\*These major requirements may be used to fulfill the Natural Scientific Approaches core.

\*\*Two additional units in Biology are required, one of which must be at the 300-400 level, excluding 361 and 398. Students with an interest in evolutionary, environmental, or ecological applications should strongly consider BIOL 112 or 360 as their electives. BIOL 112 may be taken during the freshman year and is strongly encouraged.

\*\*\* Students who satisfy the first-year Chemistry requirement with CHEM 110 and 120 must also complete CHEM 231 prior to enrolling in CHEM 460.

\*\*\*\*These major requirements may be used to fill the Mathematical Approaches core.

**The following courses do not satisfy major or minor requirements: BIOL 101, 201, 398, 498, 499 or INTN 497.**

Biology majors are encouraged to participate in the undergraduate research program, provided they have the required 3.0 GPA and submit the required research proposal after consulting with a research advisor. Related courses include 290/390/490, and 491. Students planning a senior thesis enroll in either 490/491 or 491 alone. One research unit or independent study (390, 490, and 491) may count as an advanced elective for the major.

**THIS FORM IS**

**NOT AN**

**OFFICIAL GRADUATION ANALYSIS**

**KNOWledge, Identity, and Power Requirement**

One course. See Bulletin for details. Courses may also fulfill other program or graduation requirements.

**Upper Division Level Requirement**

Three units at the upper division level outside the first major.

**Foreign Language Requirement** (circle one)

1. Two semesters at 101/102 level or One semester at 200+ level
2. Proficiency exam (3rd year high school level or 1st year college level)
3. AP foreign language score of 4 or 5
4. IB higher level foreign language score of 5, 6, or 7