**THE UNIVERSITY OF PUGET SOUND**

2016-2017 CURRICULUM GUIDE

**CHEMISTRY/DUAL DEGREE ENGINEERING**

DEGREE: BS

CONTACT PERSON: DAN BURGARD, CHEMISTRY/ RAND WORLAND, PHYSICS

**A suggested four-year program:**

*This is provided as a guide for a possible sequence for getting everything done in 3 years. Other sequences are possible. Please talk with your advisor and someone in the Dual Degree Engineering program. Those students with advanced standing (transfer credit, AP, etc.) will have more flexibility.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| *Fall Semester Classes* | |  | *Spring Semester Classes* |  |  |
| **Freshman** | | **Units** |  | **Units** |  |
|  | |  | |  |  |
| SSI 1 | | 1 | SSI 2 | 1 |  |
|  | |  |  |  |  |
| CHEM 110/lab or 115/lab (NS core) | | 1 | CHEM 120/lab or 230/lab | 1 |  |
|  | |  |  |  |  |
| MATH 180 (MA core) | | 1 | MATH 181 | 1 |  |
|  | |  |  |  |  |
| FL (if needed)\* | | 1 | FL (if needed)\* | 1 |  |
|  | |  |  |  |  |
|  |  |  |  |  |  |
|  | **Sophomore** | **Units** |  | **Units** |  |
|  |  |  |  |  |  |
|  | CHEM 250/lab | 1 | CHEM 251/lab | 1 |  |
|  |  |  |  |  |  |
|  | MATH 280 | 1 | Approaches core | 1 |  |
|  |  |  |  |  |  |
|  | PHYS 121/lab | 1 | PHYS 122/lab | 1 |  |
|  |  |  |  |  |  |
|  | CSCI 161 | 1 | MATH 290 | 1 |  |
|  |  |  |  |  |  |
|  |  |  | CHEM 231 (if needed)\*\* | .5 |  |
|  |  |  |  |  |  |
|  | |  |  |  |  |
| **Junior** | | **Units** |  | **Units** |  |
|  | |  |  |  |  |
| CHEM 340 | | 1 | CHEM 341/lab | 1 |  |
|  | |  |  |  |  |
| MATH 301 | | 1 | CHEM 420/lab | 1 |  |
|  | |  |  |  |  |
| Approaches core | | 1 | CN core# | 1 |  |
| Approaches core | | 1 | Elective | 1 |  |
|  | |  |  |  |  |
| CHEM 493 | | 0 |  |  |  |
|  | |  |  |  |  |
| CHEM elective 300 or higher2 | | 0.5-1 |  |  |  |
|  |  |  | **Puget Sound requires a total of 32 units to graduate.** | |  |

**NOTES:**

1. Complete standard Chemistry program (see *Bulletin*) with the following additional courses: CSCI 161, and MATH 290, 301.
2. By arrangement with the Chemistry Department a student could take a chemical engineering course at an affiliate school which would satisfy this requirement. Both Columbia University and Washington University (St. Louis) have specific requirements which can be met by choosing core classes appropriately. See the Dual Degree Engineering requirements. At least 0.5 units at the 300-400 level required by major.
3. A minimum grade of C must be earned in all courses for the major.

# 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.

* Meet with advisor to ensure that major requirements as well as university requirements are met.
* Students enrolling in CHEM 231 may have up to 4.5 academic units without incurring additional tuition fees.

**THE UNIVERSITY OF PUGET SOUND**

COURSE CHECKLIST

**CHEMISTRY / DUAL DEGREE ENGINEERING**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **CORE CURRICULUM** | | | | |  | | **MAJOR REQUIREMENTS** | | | |  |
| UNIVERSITY CORE |  | CRS | TERM | GRADE |  | | COURSE | UNITS | TERM | GRADE |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| SSI1 |  |  |  |  |  | | CHEM 110, 120 and 231 | 2.5 |  |  |  |
|  |  |  |  |  |  | | OR | OR |  |  |  |
| SSI2 |  |  |  |  |  |
|  |  |  |  |  | | CHEM 115 and 230 | 2 |  |  |  |
|  |  |  |  |  |  | |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| AR |  |  |  |  |  | | CHEM 250 | 1 |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| HM |  |  |  |  |  | | CHEM 251 | 1 |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| MA (MATH 180,181) \* |  |  |  |  |  | | CHEM 340 | 1 |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| NS (CHEM 110, PHYS 212, 122)\* |  |  |  |  |  | | CHEM 341 | 1 |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| SL |  |  |  |  |  | | CHEM 420 | 1 |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| CN |  |  |  |  |  | | CHEM 300-400 level elective | 0.5 |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |
| **KEY** | | | | |  | | MATH 180 | 1 |  |  |  |
|  | |  |  |  |  |  |
|  |  | | | |  | |  |  |  |  |  |
| 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 |  | | | |  | | MATH 181 | 1 |  |  |  |
|  |  | | | |  | |  |  |  |  |  |
|  |  | | | |  | | MATH 280 | 1 |  |  |  |
|  |  | | | |  | |  |  |  |  |  |
|  |  | | | |  | | PHYS 121 | 1 |  |  |  |
|  |  | | | |  | |  |  |  |  |  |
| **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 |  |  |  |  |  | | PHYS 122 | 1 |  |  |  |
|  | | | | |  |  |  |  |  |  |  |
|  | | | | |  |  |  |  |  |  |  |
|  |  | CHEM 493 | 0 |  |  |  |
|  | | | | |  |  |  |  |  |  |  |
|  |  | **Dual degree Engineering Requirements** |  |  |  |  |
|  | | | | |  |  |  |  |  |
|  |  | | | |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | CSCI 161 | 1 |  |  |  |
|  | | | | |  |  |  |  |  |  |  |
| **Upper Division Level Requirement**  Three units at the upper division level outside the first major. | | | | |  |  |  |  |  |  |  |
|  |  | MATH 290 | 1 |  |  |  |
|  | | | | |  |  |  |  |  |  |  |
|  |  | MATH 301 | 1 |  |  |  |
|  |  | | | |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  | |  |  |  |  |  |

**NOTES**

\* These major requirements may be used to fulfill university cores.

**A grade of C or higher is required in all major courses at Puget Sound.**

A higher GPA is necessary for successful admission to the affiliate engineering programs. Students pursuing Dual-Degree Engineering (DDE) should meet with a DDE advisor early in their Puget Sound careers.

**KNOWledge, Identity, and Power Requirement**

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

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| **THIS FORM IS** |
| **NOT AN** |
| **OFFICIAL GRADUATION ANALYSIS** | |