THE UNIVERSITY OF PUGET SOUND

2023-2024 CURRICULUM GUIDE

DEPARTMENT: PHYSICS/DUAL DEGREE ENGINEERING

DEGREE: BA IN PHYSICS: SAMPLE 3-YEAR PROGRAM CONTACT PERSON: RAND WORLAND, DAVID LATIMER

SUGGESTED plan of study (other class schedules are possible):

| Fall Semester Classes | | Spring Semester Classes | | |
|----------------------------|-------|--|-------|--|
| Freshman | Units | | Units | |
| SSI 1 | 1 | SSI 2 | 1 | |
| PHYS 121/Lab (NS core) | 1 | PHYS 122/Lab (NS core) | 1 | |
| MATH 180 (MA core) | 1 | MATH 181 | 1 | |
| LR (if needed) or Elective | 1 | LR (if needed) or Elective | 1 | |
| Sophomore | Units | | Units | |
| PHYS 221/lab | 1 | PHYS elective 1 (209 or higher) PHYS 222/lab recommended | 1 | |
| MATH 280 | 1 | MATH 290 | 1 | |
| CHEM 110/lab | 1 | CHEM 120/lab | 1 | |
| CSCI 161 ¹ | 1 | Approaches Core | 1 | |
| Junior | Units | | Units | |
| PHYS 305 ² | 1 | PHYS elective 2 (209 or higher) | 1 | |
| PHYS 351 ² | 1 | Elective | 1 | |
| MATH 301 ² | 1 | CN core | 1 | |
| Approaches Core | 1 | Approaches Core | 1 | |

Fulfillment of the Experiential Learning* requirement and min. of 32 units required to graduate

Notes:

*Refer to the Bulletin for details on how to meet the Experiential Learning Requirement.

1) CSCI 161 or equivalent.

2)MATH 301 is required (can be concurrent) for PHYS 305 and 351.

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 in the Bulletin.

Sample 4-year program:

Complete a standard Physics program (see Bulletin) with the following qualification: In addition, take CHEM 110 and CHEM 120 and CSCI 161.

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COURSE CHECKLIST

DEPARTMENT: PHYSICS/DUAL DEGREE ENGINEERING

| CORE CURRICULUM REQUIREMENTS (min. D- letter grade) | | | MAJOR REQUIREMENTS (15 units; min. C letter grade) | | | |
|--|---------------|------------|--|-------|----------|--|
| COURSE | Units | Complete | COURSE | Units | Complete | |
| Argument and Inquiry: Seminar in Scholarly Inquiry 1 ar in Scholarly Inquiry 2 (SSI 1 and SSI 2) | | nd Seminar | PHYS 121 ¹ | 1 | | |
| | | | PHYS 122 | 1 | | |
| SSI 1 | | | PHYS 221 | 1 | | |
| SSI 2 | | | PHYS 305 | 1 | | |
| Five Approaches to Knowing: | | | PHYS 351 | 1 | | |
| 1)Artistic | | | PHYS elective 1 (209 or higher) | 1 | | |
| 2)Humanistic | | | PHYS elective 2 (209 or higher) | 1 | | |
| 3)Mathematical (MATH 180, 181) ¹ | | | MATH 180 ^{1,2} | 1 | | |
| 4)Natural Scientific (PHYS 121) ¹ | | | MATH 181 ^{1,2} | 1 | | |
| 5)Social Scientific | | | MATH 280 | 1 | | |
| *Connections (one unit) | | | MATH 290 | 1 | | |
| GRADUATION REQUIREMENTS (min. D- letter grade) | | | MATH 301 ³ | 1 | | |
| Language Requirement (Complete ONE option): | | | CHEM 110 ² | 1 | | |
| 1) Two courses approved for the Language requirement | | | CHEM 120 ² | 1 | | |
| One approved Language course if either of the following are true: | | | CSCI 161 ⁴ | 1 | | |
| A. Scored 4 or 5 on AP foreign language exam OR 5, 6, or 7 on IB higher level language exam | | | THIS FORM IS NOT AN OFFICIAL GRADUATION ANALYSIS | | | |
| B. Heritage Learner: non-English language spoken at home; | | | | | | |
| bilingual to some degree. 3) High School diploma is from school where primary | | | GRADUATION A | MALYS | 015 | |
| language of instruction was not in English | | | | | | |
| Experiential Learning Requirement (EXLN): | | | | | | |
| Four options; See Advisor for details. | | C D 11 4 | | | | |
| KNOWledge, Identity& Power Requirement: One course. See Bulletin for details. Course may also fulfill other program/graduation requirements. | | | | | | |
| KNOW Course | radaution req | | | | | |
| Upper Division Level Requirement: Three units outside department of | | | | | | |
| first major; 300+ courses or 200+ courses with at least two prerequisites. | | | | | | |
| *Upper Div #1 | | | | | | |
| Upper Div #2 | | | | | | |
| Upper Div #3 | | | | | | |

NOTES:

*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.

Before declaring a physics major, students should schedule an appointment with the department chairperson, usually held no later than a student's fourth semester.

- 1) These major courses also meet university core requirements.
- 2) Students with sufficient background and preparation in high school chemistry and calculus may test out of Chemistry and/or Mathematics 180 or 181.
- 3) MATH 301 to be taken prior to, or concurrent with, PHYS 305, 351.
- 4) CSCI 161, or equivalent.

Majors must maintain a minimum of 2.0 GPA in all courses for both major and prerequisite courses. 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. Degree is awarded upon completion of Baccalaureate in Engineering.