THE UNIVERSITY OF PUGET SOUND

2021-2022 CURRICULUM GUIDE

MATHEMATICS

DEGREE: BS

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A SUGGESTED four-year program for Standard Option:

Fall Semester Classes

Spring Semester Classes

| Freshman | Units | | Units | |
|---------------------------------|-------|---------------------------------|-------|--|
| SSI 1 | 1 | SSI 2 | 1 | |
| MATH 180 (MA core) | 1 | MATH 181 | 1 | |
| CSCI 161* or Approaches core | 1 | Approaches core | 1 | |
| FL (if needed) or elective | 1 | FL (if needed) or elective | 1 | |
| Sophomore | Units | | Units | |
| MATH 280 | 1 | MATH 290 | 1 | |
| CSCI 161* or Approaches core | 1 | Approaches core | 1 | |
| Elective | 1 | Elective | 1 | |
| Elective | 1 | Elective | 1 | |
| Junior | Units | | Units | |
| MATH 300-400 level ¹ | 1 | MATH 300-400 level ¹ | 1 | |
| Approaches core | 1 | MATH 300-400 level ² | 1 | |
| Elective | 1 | Elective | 1 | |
| Elective | 1 | Elective | 1 | |
| Senior | Units | | Units | |
| MATH 300-400 level ³ | 1 | MATH 300-400 level ³ | 1 | |
| Elective | 1 | Elective | 1 | |
| CN core# | 1 | Elective | 1 | |
| Elective | 1 | Elective | 1 | |

NOTES:

Puget Sound requires a total of 32 units to graduate

There are TWO options for the Mathematics major: the contract option and the standard option. This guide represents a suggested four-year program for the standard major in Mathematics.

Contract option: Each contract will consist of: Between eight and 16 units with no more than nine units in mathematics; CSCI 161 or equivalent; and completion of at least five-upper-division (300-400 level) units in mathematics to include: (a) two units of related upper-division courses to provide depth and (b) one upper-division unit in a proof-based course. Final shape is worked out in consultation with the advisor and a departmental committee before the end of the semester in which the first upper-division course on the contract is completed. Upper-division courses completed before the contract is approved cannot be included in the contract. The contract will normally include MATH 180/181/280/290.

Standard option: Completion of MATH 180/181/280/290; CSCI 161 or equivalent; at least five upper-division (300-400 level) units in mathematics to include: 1) two units of related upper-division courses to provide depth, 2) one upper-division unit in a proof-based course, 3) at least one upper-division unit from each of the following two lists to provide breadth of experience in continuous and discrete mathematics: **List A:** MATH 301, 302, 350, 355, 360, 375, 376, 380, 420 (some topics as noted in topic course descriptions), 480, 481. **List B:** MATH 310, 335, 340, 345, 390, 420 (some topics as noted in topic course descriptions), 471, 490, 491. Individual classes can count for more than one requirement here.

*Students majoring in mathematics should take CSCI 161 (or equivalent) in their first two years.

#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.

Currently-offered sets of related upper-division courses to provide depth in contract and standard majors include MATH 301/302, 335/471, 340/345, 350/355, 375/376, 480/481, 490/491.

Currently offered proof-based courses include MATH 340, 345, 350, 355, 375, 376, 380, 480, 481, 490, and 491.

THE UNIVERSITY OF PUGET SOUND

COURSE CHECKLIST

MATHEMATICS: STANDARD Option

CORE CURRICULUM

UNIVERSITY CORE CRS FERM GRADE SSI 1 SSI 2 AR MA (CSCI 161; MATH 180, 181, 280) NS 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

Foreign Language Requirement (circle one)

- 1) Two semesters at 101/102 level or One semester at 200+ level
- 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

Upper Division Level Requirement

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

KNOWledge, Identity, and Power Requirement

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

STANDARD MAJOR REQUIREMENTS

| COURSE | UNITS | TERM | 1 0 | GRADE | | |
|---|-------|------|-----|-------|--|--|
| MATH 180 | | | | | | |
| MATH 181 | | | | | | |
| MATH 280 | | | | | | |
| MATH 290 | | | | | | |
| CSCI 161# | | | | | | |
| Five upper-division units of MATH 300-400 level:* | | | | | | |
| 1.# | | | | | | |
| 2.# | | | | | | |
| 3.## | | | | | | |
| 4. List A | | | | | | |
| 5. List B | | | | | | |

THIS FORM IS NOT AN OFFICIAL GRADUATION ANALYSIS

NOTES

Majors must maintain a minimum 2.0 GPA in all major courses and in all upper-division (300-400 level) courses. A grade of C- or better is required in all prerequisite courses in Math and Computer Science.

At least four units of upper-division mathematics courses must be completed at Puget Sound. One of these four units may be taken as part of a study-abroad program. For contract majors, this is subject to prior approval by the student's contract committee. #CSCI 161, or equivalent, to be taken in the first two years.

Among the five upper-division units in mathematics, **standard** option majors must include:

#two units of related upper-division courses to provide depth. Currently-offered sets of related upper-division courses to provide depth in contract and standard majors include MATH 301/302, 335/471, 340/345, 350/355, 375/376, 480/481, and 490/491.

##one upper-division proof-based course. Currently offered proof-based courses include MATH 340, 345, 350, 355, 375, 376, 380, 480, 481, 490, and 491. Standard mathematics majors must take at least one upper-division unit from each of the following two lists (List A and B) to provide breadth of experience in both continuous and discrete mathematics (individual classes may count for more than one of the above requirements).

List A: MATH 301, 302, 350, 355, 360, 375, 376, 380, 420 (some topics as noted in topic course descriptions), 480, 481.

List B: MATH 310, 335, 340, 345, 390, 420 (some topics as noted in topic course descriptions), 471, 490, 491.

*Contract majors must complete a minimum of eight and a maximum of 16 units with no more than nine units in mathematics. Contracts normally include the calculus sequence and linear algebra. List A and B requirements do not apply to contract majors.

Upper-division units must be approved by the end of the semester in which the first upper-division course on the contract is completed. Upper-division courses completed before the contract is approved cannot be included in the contract.