

Mathematics

<http://www.pacificu.edu/as/math>

Math Placement for New Incoming Students

The following table is used for incoming students. Note that for transfer students, HS Math includes mathematics taken at previous college institutions. Students receiving transfer credit for a course in a category should be placed in the next category. *Students may not register for a course in a level higher than that in which they placed.* Students wishing to do so must pass the corresponding challenge exam to be administered by the mathematics faculty during Orientation week.

| Level | Math Courses | Quant SAT or ACT | HS Math |
|-------|--------------------|-----------------------------|-----------------------------|
| IV | 227 | AP Calculus Score of 4 or 5 | |
| III | 226, 240 | SAT 550 ACT 24 | Three years w/ Trigonometry |
| II | 125, 207, 212 | SAT 500 ACT 21 | Three years |
| I | 122, 165, 221, 223 | Any | Any |

Mathematics Core Requirement

Each student must complete one of the following:

1. Pass, with at least a C-, 3 semester hours of Mathematics numbered 165 or higher
2. Pass, with at least a C-, Psych 350, or Soc 301

| Course | Prerequisite | Intended Audience |
|----------|---------------------------|--|
| Math 165 | None | General |
| Math 207 | Math 122 or Placement II | Life sciences and the social sciences |
| Math 212 | Placement II | General |
| Math 221 | None | Future elementary/middle school teachers |
| Math 223 | None | Future elementary/middle school teachers |
| Math 226 | Math 125 or Placement III | Science, math, econ, pre-med, other |

General Advice on Core

- Students of **Chemistry, Physics, Mathematics or Economics** and **Pre-med students** should complete at least **Math 226**, Calculus I
- Students who enter with credit for **Math 226** or **227** can register for **Math 240**, which is prerequisite to most upper-level mathematics courses.
- Students in **Social Sciences, Biology, Environmental Science, Exercise Science** or related field and many **pre-health professional students** should complete **Math 207**, General Elementary Statistics.
- **Future K-9 teachers** should take **both Math 221 and Math 223**.
- **Computer Science** majors are required to complete **Math 240** (Discrete Mathematics), **Math 226** (Calculus I), and **Math 306** (Linear Algebra).
- Students not majoring in science or social science may be best served by completing **Math 165** (Modern Topics in Mathematics), or **Math 212** (Language and Logic).
- Students should take mathematics early so they do not forget their background in it.

Math Major

The template below is a typical schedule for freshman and sophomore years.

Entering students with credit for Math 226 or 227 should adjust the mathematics courses accordingly, taking at least one mathematics course each term.

Freshman

Fall

CS 150 or
Phy 232 (4)
Math 226 (4)
FYS (4)
Other (0-3)

Winter

Other (3)

Spring

CS 250 or
Phy 242 (3-4)
Math 227 (4)
Math 240 (3)
possibly
Other (4-7)

Sophomore

Fall

Cs 150 or
Phy 232 (4)
Math 228 (4)
Math 240 (3)
Other (1-7)

Winter

Other (3)

Spring

Math 306 (3)
Math 326 (3)
Other (6-12)

Mathematics majors come to Pacific with a variety of backgrounds. In general, potential mathematics majors should:

1. Complete the calculus sequence, Math 226-7-8, as early as possible. Complete Math 227 and Math 306 by the end of the sophomore year in order to finish in four years.
2. Complete Math 240 as early as the student is ready, as it is prerequisite to most upper-level mathematics courses. Freshmen starting in Math 228 should simultaneously take Math 240 so they can take Math 306 in the spring.
3. Complete both Computer Science 150 and Physics 232 no later than autumn of the sophomore year.

Math Minor

Mathematics minors should complete the calculus sequence as early as possible.

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