

Physical Oceanography Curricular Group (POCG)

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PO Admissions

- Admissions done by PO faculty as a whole, rather than individual professors.
- Admissions process:
 - Faculty volunteer quarters of funding (from grants) into the first-year funding pool. Based on this and internal fellowships, we determine how many students we can admit.
 - The admissions committee identifies which COAP applicants are relevant to PO. Each is (randomly) assigned to 2 faculty members to evaluate.
 - Evaluation criteria: Academic Preparation, Scholarly potential, Motivation and maturity, Diversity, equity, and inclusion contributions, Alignment with the program.
 - The faculty meet to discuss the files & evaluations and determine who is admitted.
 - Students are not admitted into specific research groups. The admissions committee assigns the quarters of support among the admitted students.

First year courses

Fall quarter

SIOC 210 (Intro to PO) *

SIOC 203A (math I) *

SIOC 214A (fluid mechanics) *

SIOC 221A (data I) *

SIOC 209 Matlab bootcamp (1 unit) (optional)

Winter quarter

SIOC 211A (waves I) *

SIOC 203B (math II) *

SIOC 212A (GFD I) *

SIOC 221B (data II) *

Spring quarter

4 electives

*Required

Total: 16 courses (8 specified and 8 elective), including 2 in other disciplines (“breadth”), with 12 taken in first year; plus ethics.

Departmental exam

Date: Near start of summer after first year.

(1) Written exam: answer 6 out of 8 questions (one from each required course).

(2) Oral exam: revisit exam questions that you might have missed; discuss a paper (selected before the exam).

Research advisor

- Rotation through labs/groups during each quarter of first year.
- Student mentor for each first-year student.
- Find a long-term research advisor during winter/spring quarters

If there is a funding shortfall, SIO department guarantees that support will be provided through year 5.

Research areas

- Breadth: from turbulence to climate scale, from estuaries to global deep ocean
- Approaches: modeling/theory, data assimilation, observations, observational design, innovative instrumentation
- Air-sea interaction
- Mixing and turbulence
- Waves
- Near-shore and coastal processes
- Regional oceanography
- Large-scale oceanography and climate

Timeline

Year 1: 12 courses

Rotate research advisors each quarter, attend group meetings if available

Find research advisor during winter/spring quarters

Departmental exam

Year 2: start research, take elective courses now or later to complete the 16 total.

Year 3: research, form thesis committee, write thesis proposal

Qualifying exam

Years 4....: research, publishing

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PhD defense

