Physical Oceanography Curricular Group (POCG)

Ian Eisenman (POCG coordinator)
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