

Recommended classes for 1st year Geophysics students

Fall 2014

*SIO 225 Physics of Earth Materials (Fialko)
MWF, 1:00-1:50

*SIO 234 Geodynamics (Sandwell)
MWF, 8:30 – 9:20

* SIO 239 Special Topics – Geophysics Research Seminar (Brown, Stegman– 1 unit,
S/U) Fr, 4-5 PM

+ *one math class from the following:*

Limited math background:

MAE 105 Introduction to Mathematical Physics (mostly PDEs)
M, 4-4:50, TuTh 11-12:20 (currently the class is waitlisted)

Mostly Linear Algebra:

MAE 290, Efficient Numerical Methods for Simulation, Optimization, and
Control, TuTh 9:30-10:50 PCYNH (Marsden, Alison)

Strong math background:

SIO 203A/MAE 294A Intro to Applied Mathematics (Llewellyn Smith)
MWF, 10:00-10:50 (Cognitive Science Building)

Optional classes based on consultation with advisors:

Fluid Mechanics, Statistics, or Self study *Mathematical Methods for Physicists
and Engineers*, Second Edition, Riley, Hobson, and Bence, 2003.

Electives

SIO 230 Intro to Inverse Theory (C. Constable)
TuTh, 2:00-3:30

SIO 233 Intro Computing (Orcutt)
MWF, 11-11:50, Munk

SIO 210 Physical Oceanography (Talley)
MWF, 2-2:50, VH 100

Note: We recommend that you take four classes during the fall quarter.

* Core class

Winter 2015

- *SIO 227A Intro Seismology (Shearer)
- *SIO 229 Gravity and Geomagnetism (Borsa, Constable)
- *SIO 239 Special Topics – Research Discussion (Brown, Stegman– 1 unit, S/U)
Th, 11-11:50

Statistics class (pick one):

SIO 221B Analysis of PO data (Rudnick)
ECE 109 Engineering Probability and Statistics
Math 183 Statistical Methods

Electives

SIO 226 Intro Marine Geophysics (Dorman, Chadwell)
SIO 239 Space Geodesy (Fialko, Sandwell)
SIO 240 Marine Geology (Gee, Charles)
SIO 247 Rock and Paleomagnetism (Tauxe)
SIO 249 Paleomagnetism Seminar (Tauxe)

ECE275B Parameter Estimation II (strong math students)

Spring 2015

- *SIO 223B Geophysical Data Analysis II (Agnew)
- *SIO 224 Internal Constitution (Masters, Stegman)
- *SIO 239 Special Topics – Research Discussion (Brown, Stegman– 1 unit, S/U)
Th, 11-11:50

Electives

SIO 227B or C Advanced Seismology (Masters or Orcutt)
SIO 236 Satellite Remote Sensing (Sandwell, Fricker)
SIO 249 Paleomagnetism Seminar (Tauxe)

MAE 108 Probability and Statistical Methods for Mech. and Env. Engin.

* Core Class