

SIO105 - 2016  
Sedimentology and Stratigraphy  
Lectures Tuesday/Thursday 9:30-11:00 Vaughan 300  
Lab Thursday – TA Daniel Schwartz

**Week 1**

3/29 – Introduction to Sedimentology and Stratigraphy

3/31 – Lecture 1: Plate tectonics & Sedimentary Basins

**Week 2**

4/5 - Lecture 2: Origin of Sediments – weathering/maturity

4/7 – *Field Trip 1 – Tourmaline Beach Margin Deposition*

**Week 3**

4/12 - Lecture 3: Sediment transport and deposition

4/14 - Lecture 4: Depositional systems: Alluvial fans [Proposal topic submitted]

4/14 - Lab 1 - Grain size analysis and petrology of beach sands Driscoll Lab. This lab will examine grain size distribution of La Jolla beach sands as well as the composition of the beach sand. We will determine the maturity of the sands in our backyard.

**Week 4**

4/19- Lecture 5: Depositional systems: Rivers [Proposal topic submitted]

4/21 – *Field Trip 2 – Torrey Pines State Beach*

**Week 5**

4/26 - Lecture 6: Depositional systems: Beaches

4/28: Lecture 7: Depositional systems: Shelf

4/28: Lab 2 - Examining Cores and Marine Deposits

**Week 6**

5/3 - Lecture 8: Depositional systems: Slope, Rise, deep-sea fans

5/5 – *Field Trip 3 – Blacks Beach – Submarine Fans*

**Week 7**

5/10 – Mid-Term Exam

5/12 - Lecture 9: Depositional systems: Slope, Rise, deep-sea fans II

5/12 - Lab 3 – sedimentary rocks in hand specimen and thin section

**Week 8**

5/17 - Lecture 10: Lithostratigraphy, Biostratigraphy, Chronostratigraphy

5/19 – Lecture 11: Lithostratigraphy, Biostratigraphy, Chronostratigraphy II

**Week 9**

5/24 – Lecture 12: Sequence Stratigraphy

5/26 – Lecture 13 - Sequence Stratigraphy II

5/26 – Lab 4 – Sequence Stratigraphy Exercise

**Week 10**

5/31 - Class Presentations

6/2 – Class Presentations

**Week 11**

6/6 – Final Exams