
Course objectives

At the end of the course, the students are expected to have an appreciation of how science "is done" and to understand the difference between science, pseudoscience, and what is not science. The students should leave with an ability to explain plate tectonics and continental drift and understand *how we know* about these phenomena.

Office hours

My office is in room 207 Macelwane (just around the corner). You are always welcome to come and see me any time, any day, if I am in. I usually put a note on my door as to my whereabouts, and if/when I will be back in my office. My "official" office hours are 11-12 a.m. M and W.

Contacting me

(Instructor: John Encarnación)
Voice Mail : **977-3119**
E-mail : **jpe@eas.slu.edu** or encarnjp@slu.edu

Textbooks

In preparation; I will be giving out readings when appropriate.

Grading

Attendance	10%
Homework & quizzes	10%
In-class exercises	10%
Exam 1	15%
Exam 2	15%
Exam 3	15%
Final Exam	25%

A ≥ 90% > **B+** ≥ 85% > **B** ≥ 80% > **C+** ≥ 75% > **C** ≥ 70% > **D** ≥ 60% > **F**

(Note: Exams will be multiple choice.)

Schedule and important dates

TBA

EASA 133 Course syllabus

What *is* science and how does it "operate"?

- "Types" of science

- Some key characteristics of science

- How does science differ from religion?

- Dealing with quantitative data

- Scientists and geologists in particular

A brief look at Earth's gross structure, surface features, and composition

Early ideas, isostasy and vertical motions of the crust

How was continental drift and plate tectonics "discovered"?

- Wegener's lines of evidence for drift

- Paleomagnetism

- Sea floor spreading

- The role of earthquake studies in developing plate tectonics

The basics of plate tectonics

- the "plates"

- divergent plate boundaries

- convergent plate boundaries

- transform boundaries

The causes of plate motions

Plate tectonics and the major surface features and phenomena on Earth

A closer look at some plates and their boundaries

Plate tectonics of the past and 'supercontinents'