

GES 190: Research in the Field 2012 Ultramafics of California and Oregon



Instructor: Prof. Jessica M Warren

Tentative dates: Monday Aug 27 to Sunday Sept 9

*Sign up for GES 190 for **Fall Quarter 2012!!***



This 2 week class will be taught from tent camps in northern California and southern Oregon. We will spend the first week at the Trinity Ophiolite in northern California, near Mt. Shasta. During the second week, we will stay in the Josephine Peridotite, located in southwest Oregon near the coastal town of Brookings.

The goal of this field class is to study exposures of oceanic crust and lithosphere. Students will learn advanced field techniques for mapping and sampling mafic-ultramafic rocks, including collecting oriented samples and making detailed observations of deformed and melted outcrops. Students will develop their science communication skills by participating in a class blog.

All undergraduates who have taken GES 105 (or equivalent) and all graduate students are welcome to participate in this class. This will be a great opportunity to learn first-hand about the geology of subduction zones on the west coast, as well as theories about mantle melting and melt transport. There will be opportunities for follow-up laboratory investigations, including microstructural studies, microprobe analysis, and electron backscatter diffraction studies of field samples.

We plan to leave for the trip on Aug. 27, unless this timing presents a problem for a majority of students. At the end of the trip, interested students can transfer to the final week of the GES105/190 class in Poleta Folds.

Please email me (warrenj@stanford.edu) with your interest, so that I can keep you up-to-date on plans.