**Ge123 Continental Crust Seminar**
**Winter Term 2019**

The seminar this term will focus on the Phanerozoic tectonic evolution of Alaska and contiguous areas. Comprising 1.7 million $km^2$, Alaska represents ~45% of the land mass of the United States and is the result of a long-lived accretionary orogen. Throughout Earth's history accretionary orogens have been responsible for major growth of the continental landmasses, through both the formation of juvenile magmatic rocks, as well as, suturing of pre-existing crustal fragments. A close study of the tectonic evolution of Alaska will inform us of the dynamics and detailed processes involved in accretionary orogens and the formation of the continental crust. In particular, we will examine lithologic, structural, geochronologic, paleomagnetic, and geophysical data that must be reconciled in any coherent model of Alaskan tectonics.

The course will be structured as a reading seminar. We will generally read one paper per week. Students will be expected to lead the discussion of one (potentially two, depending on class size) paper during the term. The ultimate goal of the class is to have a firm understanding of the geology of Alaska, a critical assessment of various proposed tectonic models, and a vision for future directions of research in understanding Alaska tectonics.