Course Goals: The broader goals of this seminar course are two-fold: 1) Encourage you to think about the science of learning and introduce you to pedagogical tools designed to help improve student learning in STEM classrooms; and 2) Introduce you to issues related to assessment in the California secondary education system, and how your approaches to teaching will fit within this framework.

Course Schedule:

Jan 10  Introductions, course goals, and objectives.
Activity: Think-Pare-Share/Five Fundamental Ideas on Learning.

Jan 17  How people learn?
Activity: Jig-saw/How People Learn handout.

Jan 24  Concept Maps
Activity: Concept map for how people learn.

Jan 31  Active Learning Part 1
Activity: Discovery learning and student misconceptions/Phases of the moon interactive demonstration.

Feb 7    Active Learning Part 2
Activity: Discovery learning and student misconceptions/In-class response systems (clickers) and calculating probability.

Feb 14  Backwards Design
Activity: Individual brainstorming/Writing learning objectives for a course unit.

Feb 21  Common Core and NGSS (Next Generation Science Standards)
Activity: Turn and Talk/How will your class learning objectives be influenced by Common Core/NGSS?

Feb 28  Guest Presenter
Common Core and NGSS from a teacher’s perspective.

Mar 7    Preparation for course project
Activity: Brainstorm idea for teaching demonstration

Mar 14  Course Assignment Due – Video of student teaching demonstration
Activity: View examples of student teaching demonstrations
Grading – S/NC (pass/fail)

Assignment – Completion and timely submission of the assignment will be required for a satisfactory grade. Details for the requirements of the assignment will be provided in iLearn and will be discussed in class.

Class attendance: Attendance will be taken each week. Students who miss more than one class period without a valid documented excuse (hospitalization, death in the family, etc.) will not earn a satisfactory grade.