

Careers in Science and Math Education - NASC 192

Winter 2018

Wednesdays 8:10 – 9:00 am

Location: Chemical Sciences INTS 2134

Instructor: Dr. Jack Eichler, CS 220, jack.eichler@ucr.edu

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.