

## **SIO 209 Community Based Science Fall 2015**

Instructor: Brad Werner, [bwerner@ucsd.edu](mailto:bwerner@ucsd.edu)

course web site: <http://complex-systems.ucsd.edu/sio2092015>

Participants in SIO 209 will engage in weekly discussions, form a nonhierarchical collective to carry out joint projects, participate in the science education program at high schools in South/East San Diego, mentor high school students, interview community organizers, volunteer with a community organization, jointly plan a community event with teachers and organizers, and critique and document their experiences.

### **TOPICS FOR BACKGROUND READING AND DISCUSSION**

**Week 1: Introduction to Community** *Models for community interactions focusing on inclusiveness vs. exclusion* *Plus - introduction to interviewing*

**Week 2: Power Dynamics/Consensus Decision Making/Coalition Formation** *How can people from different backgrounds, with different knowledge and experiences, with different goals, and with different levels of privilege work together in a way in which all are empowered?*

**Week 3: Introduction to the working class communities of San Diego** *History and struggles of San Diego's diverse, immigrant communities*

**Week 4: Health in Working Class Communities** *Survey existing knowledge and highlight research needs in San Diego area communities*

**Week 5: Environmental Racism in Working Class Communities** *Survey existing knowledge and highlight research needs in San Diego area communities*

**Week 6: The Problem** *Critiques of the Structure of Science and Engineering Departments at Research Universities*

**Week 7: Alternative Education Models/Free Skools** *Survey and evaluate alternative education models*

**Week 8: Indigenous Science** *The nature and scope of indigenous science compared with western science*

**Week 9: Discuss experiences with community organizers, community organizing and high school students**

**Week 10: Summarize and document experiences and knowledge**

## **PARTICIPANT RESPONSIBILITIES**

**Participants in SIO 209 Community-Based Science will have the opportunity to take part in many or all of the following projects (specifics and emphasis will be determined by consultations between the SIO 209 2015 Collective and folks in the communities we are working in):**

- participate in science education at a high school in Southeast San Diego - visit classes, assist students and teachers** -> *teaching materials and a brief report*
- mentor a high school student, will include discussions about post-secondary education and setting up an informal internship with you or someone at SIO or UCSD.** -> *updates ...or...*
- make and post video interviews with your mentee interviewing each other.** -> *video*
- interview a San Diego community organizer about struggles in their community, research and education needs, and their perceptions of UCSD, jointly with a high school student** -> *edited video*
- interview a UCSD student, staff or faculty member working towards a more open, inclusive UCSD jointly with a high school student** -> *edited video*
- volunteer with a community organization.** -> *report on progress*
- form a consensus-based collective of participants in sio 209** -> *meet ~ once per week with collective to organize work with high school, interfacing with community groups, interviews, events, etc.*
- participate as a collective in the organization of one to two community events** -> *joint report on the events*
- as a collective, carry out a project in collaboration with teachers, students or community members - for example, a project concerning mapping and a sense of geography and place, or preparing an educational workshop on going to college and struggles at ucsd, or ??** -> *project materials or event*
- contribute towards summarizing and documenting experiences on the course web site** -> *web site summary*
- meet with brad individually the first week to outline your goals and expected progress** -> *personal plan for progress during the quarter*
- write a short weekly report on progress.** -> *submit to CourseBlog on the website*