

College of San Mateo
Official Course Outline

1. **COURSE ID:** IDST 104 **TITLE:** Sciences Honors Seminar II

Units: 2.0 units **Hours/Semester:** 32.0-36.0 Lecture hours; and 64.0-72.0 Homework hours

Method of Grading: Letter Grade Only

Recommended Preparation:

IDST 101 or IDST 102

2. **COURSE DESIGNATION:**

Degree Credit

Transfer credit: CSU

3. **COURSE DESCRIPTIONS:**

Catalog Description:

For continuing Honors Project students with a concentration in the Sciences Cluster, this seminar further develops their mastery of interdisciplinary theory, research methodologies and critical inquiry. Students are introduced to incorporating primary sources as they develop and complete a more advanced scholarly project based upon the content of the transfer course they have linked to the seminar. Emphasis on mentoring IDST102 students, and the pursuit of more original and independent research.

4. **STUDENT LEARNING OUTCOME(S) (SLO'S):**

Upon successful completion of this course, a student will meet the following outcomes:

1. Collaborate with students from different disciplines.
2. Mentor students in scientific research and its application.
3. Complete and evaluate an interdisciplinary research project.

5. **SPECIFIC INSTRUCTIONAL OBJECTIVES:**

Upon successful completion of this course, a student will be able to:

1. Collaborate with students from different perspectives.
2. Mentor students in scientific research and its application.
3. Complete and evaluate an interdisciplinary research project.

6. **COURSE CONTENT:**

Lecture Content:

This course is a two-unit, interdisciplinary honors seminar for continuing Honors Project students, with a concentration in the Sciences Cluster. Honors students enrolled in the course develop and complete an advanced scholarly project for an appropriate transfer course they are co-enrolled in. (If approved by the transfer course instructor, this project earns the student honors credit for that chosen transfer course.) Students are introduced to incorporating primary sources as they further develop their mastery of interdisciplinary research methodologies and critical inquiry. Another component of the course is developing mentoring skills for IDST 102 students (IDST 102 and 104 will be cross-listed, and meet together with one instructor). By sharing their experiences in 101 or 102, 104 students learn how to create productive conversations across a variety of disciplines, as well as how to guide 102 students to successfully complete research project assignments. Lastly, the course builds upon skills learned in IDST 102 by guiding students to pursue more original interdisciplinary scholarly projects. These projects may be linked to the seminar theme, but there is more freedom for students to discover their own analytical angle into the coursework of their linked transfer course.

Like IDST 102, the course prioritizes developing, expanding and refining each student's honors project. With an emphasis on second-time, seasoned students being more involved in mentoring new students, course work and assignments would instruct students in how to:

- lead small group activities around interdisciplinary seminar theme
- mentor students in project proposal and development
- model research skills through class presentation
- explain and engage students in primary source research
- model relating bibliography to project thesis

Our honors seminars, and our program overall, conceives honors coursework in terms of the

interdisciplinary, student-centered model described above. In other words, the model encourages students to select their own transfer course and establish their own honors research project, with instructor input on an academically challenging undertaking beyond but related to the transfer coursework. As an inclusive, flexible but rigorous cohort and community, Honors Project students engage research in the context of scholarly interdisciplinary dialogue and collaboration, as well as independent development of pertinent topics that matter to each individual student

CSM's Honors Project recognizes that all students have exceptional academic abilities, and we strive to guide students to discover and maximize their inherent individual abilities and ambitions. The program is dedicated to creating a scholarly, encouraging, and supportive community that helps students learn how to successfully navigate the challenges of the 21st century.

Lab Content:

None

TBA Hours Content:

None

7. REPRESENTATIVE METHODS OF INSTRUCTION:

Typical methods of instruction may include:

- A. Lecture
- B. Activity
- C. Discussion
- D. Experiments
- E. Field Experience
- F. Field Trips

8. REPRESENTATIVE ASSIGNMENTS

Representative assignments in this course may include, but are not limited to the following:

Writing Assignments:

Interdisciplinary seminar theme critiques
Project proposal
Annotated bibliography
Project outline
Feedback/workshop exercises
Interdisciplinary seminar theme questions/activities for mentoring students
Drafts of research project
Evaluation criteria

Sample Writing Assignment:

Bring in a rough draft of a section of your research project (not the introduction). Also bring in your current bibliography. Break into pairs, and read each other's drafts. Make comments and suggestions, regarding the use (or potential use) of some of the sources in the bibliography, with the aim of implementing, or enhancing, the scientific research principles and strategies we have covered thus far. Take home the suggestions you receive, and revise the section, including a supplement where you reflect on your process of integrating the scientific research suggestions made by your peer. We will collectively share the following week.

Reading Assignments:

Interdisciplinary seminar theme readings, including outside research related to seminar theme readings
Readings on mentoring skills and strategies
Readings on primary source research skills
Outside readings for project topic

Sample Reading Assignment:

From *Networks: An Introduction*, by Mark Newman, read chapters 4 (Networks of Information) and 5 (Biological Networks). Come to class prepared to elaborate on the similarities and differences between the two types of networks; and the import and impact of these networks on the culture at large.

Other Outside Assignments:

Library research assignments
Web research assignments
Field trips

9. REPRESENTATIVE METHODS OF EVALUATION

Representative methods of evaluation may include:

- A. Class Participation
- B. Class Work
- C. Group Projects
- D. Homework
- E. Oral Presentation
- F. Papers
- G. Research Projects

10. REPRESENTATIVE TEXT(S):

Possible textbooks include:

- A. Lockhart, P.. *Arithmetic*, ed. Harvard University Press, 2020
- B. Lindsay, D.. *Scientific Writing = Thinking in Words*, ed. CSIRO Publishing, 2020
- C. Negrelli, J.. *Technical Writing in Action: Practical Applications for STEM Students*, ed. Cognella, 2020

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Course Originator: David Laderman