

## **Syllabus: C&S BIOL 198B – Honors Research in Computational & Systems Biology**

### **Course Description:**

Tutorial, 12 hours minimum in laboratory. Requisite: 198A. Continued reading and research that culminates in honors thesis under direct supervision of faculty member. Maximum of 8 units of courses 198A and 198B may be applied toward the major. Individual contact required. Letter grading.

### **Schedule:**

There will be regular meetings with the faculty supervisor on a tutorial basis.

### **Learning Outcomes:**

- Demonstrate critical thinking skills and familiarity with research techniques needed to successfully pursue a research project in computational and systemsbiology.
- Conceive and execute a research project upon which the student engages current methods and theory.
- Communicate original scholarly findings to peers both in oral and written form.
- Work productively with others as part of a research team.

### **Assignments/topics:**

- Topics and reading list are to be chosen in consultation with the individual faculty supervisor.
- A student is only expected to submit, at minimum, a 10-page research paper upon completion of 198B. However, the student's PI can choose to add-on additional deliverables that the student must include in the box below.
- At the completion of 198B, students will submit to their faculty mentor and to the CaSB Undergraduate Office the following Capstone Deliverables:
  - Research Thesis – The research thesis should follow standard guidelines for a scientific publication. The paper should be at least ten pages single spaced. It should include the following sections: Title, Authors, Affiliation, Abstract, Introduction, Methods, Results, Conclusions, Acknowledgements and References. The references should follow the guidelines of a journal that is relevant to the research topic, and there should be at least ten references. The paper should also include at least four figures. Each of the four figures can contain multiple panels and should include a caption. Figures should be embedded within the text of the thesis rather than added to the end of the report. The final report should be submitted in pdf format.

**Continue to next page for specific contract course requirement.**

Please enter the specific contract expectations in the box below. Remember that any added information in this box will need to be submitted to the C&S BIO Undergraduate Office upon completion of the course.

**Grading:**

Grades are assigned by the student's faculty mentor, based on submission of the Capstone deliverables outlined above. Letter grade only.

**TO SUBMIT YOUR FINAL DELIVERABLES TO THE CaSB Undergraduate Office.**

- Email your paper as a PDF (.pdf) document
  - Email recording of lab presentation or a link to the recording(If Applicable)
  - Email an electronic copy of your poster (PDF, JPEG, etc.)(If Applicable)
- Deliverables Due: 5:00PM, Friday of Finals Week

Please submit all documents to CaSB via Message Center.

**Final Thesis Paper**

- Include your name and UID on the first page of the thesis paper.
- Turn-in your paper to your faculty mentor (either electronic or hardcopy).
- Submit the the final deliverables to CaSB via Message Center