

Statistics Department
Senior Project Guidelines
2018-19

Your senior project provides an opportunity to apply or extend knowledge and skills learned in upper-level statistics courses, providing a culminating experience as a Statistics major. Please choose a topic that interests you and devote sufficient time to producing a senior project of which you and the Statistics Department can be proud.

Choice of topic/supervisor:

You may choose your own topic and supervisor. Some students have their own topics in mind and approach potential supervisors, while others decide on their topic after hearing/reading about ideas that faculty have. A wide variety of project types are possible, as long as you and your supervisor agree in advance about what the project will entail. For example, some projects focus on data analysis, others on writing software, still others on learning about and writing an expository report on a topic not covered in previous coursework, and many other types are possible. In addition, some students use their experience as a summer researcher or as an industry intern as the basis for their senior project.

Registration and grading:

You should register for STAT 461 and 462 with your senior project supervisor. You can take both of these courses together or in separate quarters. You should establish a regular meeting schedule (probably weekly or biweekly) with your senior project supervisor. Your supervisor will assign grades based on:

- quality and extensiveness of your work
- written and oral presentations of your project
- project management and independence of work
- adherence to the requirements listed below

Be aware that you may receive a grade of RP (Report in Progress) for STAT 461, to be changed after the completion and presentation of your project.

You are expected to spend at least 3 hours per week per unit of credit on your senior project. This amounts to a minimum of 30 hours for STAT 461 (1 unit) and 60 hours for STAT 462 (2 units of credit). For senior projects that grow out of an internship or summer research project, your 90 hours of work (which can include both the internship/project and additional work afterward) must be approved in advance by your senior project supervisor. Failing to document that you spent this minimum amount of time could result in a grade of F, as could failing to satisfy all of the requirements listed below.

Required attendance:

- You are required to attend the Senior Project Orientation Meeting to be held at 11:10-12 on Thursday, September 27. The purpose of this meeting is to clarify the guidelines in this document, and for faculty to present ideas for possible topics of senior projects.
- You are also expected to attend at least 4 departmental colloquia or sessions of student presentations during the academic year in which your senior project is completed. Be sure to sign in at each presentation that you attend.

Written requirements:

- By the end of the first week of Winter Quarter, you will be asked to respond to a form in which you will indicate your senior project supervisor and topic. You should also submit a one-page project description to your supervisor at this time, in which you describe the topic and scope of your senior project, what has already been accomplished, and what remains to be done.
- Keep a record of how you spend time on all aspects of your senior project. Record the date and number of hours and a summary of the type of activity that you conducted during that time. Be prepared to show this record at various times to your senior project supervisor as requested.
- You must provide a one-page summary of your senior project when it is completed. Submit this electronically to your senior project supervisor. You are to write this summary without assistance from others.
- You must provide a final report of your senior project. Plan to submit and revise several drafts to your supervisor before your project is complete.

Public presentation:

You are required to give a public presentation of your senior project. Your presentation may be delivered either as:

- an oral presentation for the Department of Statistics faculty and students, or
- a poster or oral presentation for the College of Science and Mathematics Student Research Conference, annually held late in May.

Please discuss with your senior project supervisor which of these venues you would like to participate in. If you select the first of these options, you will work with Dr. Afriyie to schedule your presentation.

Final documentation:

- Provide your senior project supervisor with the following digital files related to your senior project:
 - A PDF file containing your one-page summary (along with your name and project title)
 - A PDF file with your final senior project report
 - Files with computer code (if your project involves programming)
 - Data files (if your project involves data analysis)
 - Any other files that you produce or utilize as part of your senior project and are requested by your senior project supervisor
- You are also encouraged to submit your senior project report electronically to the Kennedy Library. To do so, follow the detailed instructions available at:
<http://lib.calpoly.edu/seniorprojects/guidelines.html>.

Research Project Competition:

Please consider submitting your senior project for the Undergraduate Statistics Research Project Competition. You can find information about this competition at:

www.causeweb.org/usproc/USRESP%20Competition