

1 Course Description

Calendar Description

The aim of the course is to provide students with experience in statistical consultation. Students are assigned to research projects as consultants, which requires them to consider ethical statistical practice, choose the appropriate statistical technique, and communicate the results to a non-mathematical audience.

- **Course Content (brief)**

- Scientific Method
- Communication (emails, leading a consultation meeting, checking in with clients, presenting results, writing a report)
- Ethical statistical practice
- Choosing the appropriate statistical technique
- Statistical computing (SPSS and R)
- Students function as a statistical consultant in a research project under supervision of an experienced consultant

- **Learning Outcomes**

- Effectively communicate with non-experts about statistics
- Apply ethical statistical practice in their projects
- Propose the proper statistical approach to a range of problems
- Conduct a range of statistical analyses with R and/or SPSS
- Write scientific reports
- Present statistical results and their interpretation to non-experts

- **Evaluation**

1. Participation in seminar sessions
(scale: 0 (barely present)/ 1 (limited engagement)/ 2 (present and willing to participate))
2. Assignments
3. Project
 - communication
 - * 1st meeting (report + observation) – rubric
 - * emails to client – rubric(needed)
 - * last meeting – rubric(needed)
 - weekly progress reports (during seminar)
(scale: 0(no report)/1(incomplete, lack of engagement)/2(complete and well informed))
 - final written report – rubric(review)
 - oral presentation (I always have this not for marks, students can choose to do a trial run, presenting results for their clients, or report back on their experience in the class)
 - milestones (optional)

- (a) plan of data analysis
- (b) data cleaning (documentation)
- (c) descriptive statistics
- (d) inferential statistics