1 The Project

1.1 Finding Projects

At MacEwan the course is currently offered in Winter terms. In November, about two months before the start of the term, we send out emails to chairs of relevant departments and honours supervisors inviting them to spread the news about the opportunities to work with students from our course. Several of the previous consulting projects were sponsored by previous collaborators, from Community Studies and Medicine at the University of Alberta. We hope to include more projects from local industry and non-for-profits continuing the collaboration with market research company in Edmonton.

1.2 Matching Students and Projects

Potential clients submit a short description of their project and their needs. The instructor introduces the project to students in the consulting course and students can submit a list of up to three projects they are interested in.
The instructor matches students with projects based on their preferences and their statistical maturity.
Usually, we have more projects than students, which means we can choose one of the remaining projects for demonstrating the process. The remaining projects are referred to the statistical consulting centre such that all clients will receive help.

1.3 Students Engagement with Their Project

After students are matched with their project they have to work through the following responsibilities

1. First email: To establish first contact and arrange for a first meeting. This first email includes the document introducing what to expect in this meeting with statistical consultants.

2. First meeting: The student will lead the first meeting with the client(s) supported by the instructor. Ideally the instructor will not intervene and be there for moral support only. Experience shows that it is often helpful for the instructor to model part of the conversation, but the instructor should leave as much control as possible with the student.

3. Follow-up emails: Email the clients (cc instructor), arrange the sharing of data and further information, lab visit, etc. Sometimes it is helpful to setup a second meeting.

4. Data to software and data cleaning: The student reads the data into their preferred statistics software and in discussion with the client and the instructor starts the cleaning process.

5. Data analysis plan: The student proposes data description tools and inferential tools as required.

6. Share progress with class and instructor: In seminar meetings the students share their progress with their class and receives feedback. This is an opportunity for the instructor to guide the statistical analysis and decide if further meetings between the student, the client, and the instructor are required.

7. Email conversations/meetings with the client: Sharing progress, addressing arising questions

8. Data description: Run the data description and discuss with client. Sometimes outliers and data entry mistakes are detected at this time.

9. Inferential data analysis: Conduct the analyses, including model checks. Instructor needs to supervise this step.

10. Prepare draft of first report: Share the draft with the client in a meeting together with the instructor. Address arising questions.

11. Prepare final report

12. Present results or "what has been learned" to the class: The presentation is not graded, reducing the stress and creating an atmosphere of celebration for what has been accomplished throughout the term.

For evaluation of student performance on the project see Evaluation of Students