

5. Project and Course Requirements

Completion of each project will include the fulfillment of the following four requirements:

- Pre-laboratory preparation.
- An oral presentation of project objectives/plans to the Project Supervisor (TA) in a pre-lab meeting.
- Laboratory/experimental work.
- Formal report preparation & submission.

The preparation and the experimental aspects of the project will be completed as a team. However, individual reports will be submitted by **each** group member for the 1st project round. Submission of an individual report will allow each team member to demonstrate their individual written communication skills. The 2nd, 3rd and 4th project rounds require the submission of a single group-prepared report.

For every project, a **Team Leader** will be designated by the group. Every team member will have at least one opportunity to act as a Team Leader. The responsibility of a Team Leader is outlined below:

Pre-lab Preparation

- The Team Leader is in charge of coordinating the experimental activities of the team and will be the main contact with the Project Supervisor (TA) on behalf of the group. The other members of the team are expected to give their Team Leader full co-operation.
- Each team is required to carry out the laboratory part of each project within the assigned project round period according to the lab assignment schedules provided in the Course Manual module on the course onQ website. To do this, the team must understand the project description, and determine the objectives and scope of the project. The following steps are required to accomplish a clear project objective:
 1. Your group must read and understand the project-related materials available on the course onQ website. This information can be found in the "*Project Assignments & Information*" module on the "*Content*" page.
 2. Inspect (but do not operate) the equipment. Then based on the inspection, develop a detailed and complete procedure for carrying out the experimental work. Equipment may be inspected at any time during regular department hours (Mon. to Fri., 8:30 am to 5:30 pm). Feel free to ask for assistance from the Chemical Technologists or Laboratory Supervisors (TAs) to better understand the lab, they are a great resource.

Note: you may not come to the lab to "observe" the work of another team. All work **must** be original.

3. Finally, the entire team will attend a pre-lab meeting with the Project Supervisor (TA) to demonstrate the team's preparation for the project. Meet your Project Supervisor at the apparatus location 5 minutes before your assigned lab time for your pre-lab meeting. If you have questions or concerns about the scheduling of the pre-lab meeting, the Team leader should contact the Project Supervisor via email to make alternate arrangements. The meeting will typically last 10 - 15 minutes. At this meeting, the Group Leader will make a short informal oral presentation which will include:
 - the specific **objectives** of the project
 - a detailed explanation of the **experimental procedure**, any anticipated problems, and any specific safety requirements.
 - the form of the **results** expected
 - specific mathematical and statistical **analysis** of the data that will be done in the report.

This meeting should be viewed as an informal presentation to a supervisor (note: informal does not mean unprofessional - be prepared, organized and business-like in your approach). Be prepared to talk without notes - this will provide proof of a solid understanding to the Supervisor. All members of the group will be expected to take part in the discussion and may be asked a question at any time by the Project Supervisor (TA). If the presentation is judged to be satisfactory the Project Supervisor will sign the group's lab book, and the team may begin experimentation. If not, the team will **NOT** be permitted to do the experiment, but instead the team must re-evaluate the work based on the Project Supervisor's comments and prepare for another meeting. Teams may not operate the equipment until they are authorized to do so by the Project Supervisor.

If a group was not granted permission to proceed with the experiment, the Team Leader must notify the Course Instructor ([David Poirier](#)) of the cancellation and request a make-up lab timeslot.

Laboratory Work

- Each team is required to carry out the laboratory experimentation for each project during their assigned lab-work timeslot. This involves executing the plans for experiments and recording experimental data and observations.
 - The Team Leader is responsible for maintaining the group data book which may be subject to inspection by the Course Instructor or Project Supervisor (TA). At the end of each session in the laboratory, the data book pages should be signed by the Project Supervisor (TA).
 - In the 1st project round, the Team Leader's coordinator role ends when the experimental work is finished. Each person then independently completes a technical formal laboratory report. In the 2nd, 3rd and 4th project rounds, the coordination role of the Team Leader continues as the group is required to submit a group-prepared report (see below).
-

Report Preparation & Submission

- All students must submit the technical formal reports as a WORD.docx file (max. size 20MB) via the CHEE 218 onQ website by 9:00 pm on the designated due-date. A hard copy submission is not required. The onQ report submission links can be found in the “*Work Tasks & Submission Links*” module on the “*Content*” page.
- Individually-prepared reports must be submitted by all students for the 1st project round.
- A group-prepared report is submitted for the 2nd, 3rd, and 4th project rounds. The team leader is responsible for coordinating the production and submission of the report, however, all team members must contribute equally to the preparation of the document.
- Reports should not exceed 20 pages for the combined main sections (excluding appendices and front matter) and should be double-spaced on standard letter-size sheet with 12 pt. font.
- Reports should be consistent with the style for formal reports suggested in the “*Formal Technical Report Writing Guide*” document in the “*CHEE 218 Course Manual*” module of the course onQ website.
- Carefully review the samples of evaluation sheets used by the TAs to get a clear idea of the criteria used to assess your work. These sample evaluation sheets can also be downloaded from the “*CHEE 218 Course Manual*” module on the course onQ website.
- Peer Evaluations are a mandatory submission from EACH team member the day after every formal laboratory report is due. Peer evaluations are kept confidential. Students should complete peer evaluation surveys via the CHEE 218 onQ website. The surveys can be found in the “*Work Tasks & Submission Links*” module on the “*Content*” page.
- Supplementary information about report writing format and style can be found in the text by Pfeiffer and Boogerd (2003). This text is on reserve at the Douglas Library. Common sections of a formal laboratory report include:

- Title page (signed off in the appropriate places);
- Abstract
- Introduction
- Experimental
- Results/discussion
- Conclusions/recommendations
- References
- Appendices

Pfeiffer, W.S.; Boogerd, J. 2003. *Technical Writing: A Practical Approach*. Third Canadian Edition, Toronto, Pearson Prentice Hall

Last Updated July 9, 2020