# **Operation Catapult 2021**

## Preparation of Project Summary, Final Report, Poster, and Poster Talk

#### **Communication – dare to share**

Communicating is an essential skill for scientists and engineers. You will explain your work with people in your field and with people with little knowledge of your field. Your ability to share effectively information with others is important. Speaking and writing well is important but they are not the only communication skills. Your ability to listen and to visually communicate your ideas are important as well.

#### **Creativity – the skill to thrill**

Standing above the crowd is an essential skill in engineering and science. Creativity is a trait that will allow you to stand above the crowded field of engineers and scientists. Although creativity is not a trait often associated with scientists and engineers, creativity is a skill you can develop.

To help you develop your communication and creativity skills each group will produce a project summary, a final report, a poster, and a poster talk. All team members will share in preparation of these documents.

### **Team Name and Logo**

Each team must develop a team name and a team logo. Your team name and logo must appear on the front page of your report.

#### **Project Summary**

A project summary is a concise summary of your project to inform the reader of the contents of your report. The summary will tell the reader what your group has accomplished. If your project has results and conclusions, they should be included in the summary. The project summary is the first page of the report after the title page.

#### Required Format

- Two page maximum
- Double spaced type
- All type, including headers and references, must be 12-point Times New Roman.
- One-inch margins on the left, right, top and bottom of the page.
- The first line of the first page of the project summary should contain the words "Project Summary:" left justified. Tab over to a position 2 inches from the left margin and type your project title and your group number.

- On the next line (remember to double space the type), put the words "Group Members:" left justified. Tab over to the 2 inch mark and list the names of the group members, with the name of each member's high school and city (single spaced) at the 4 inch mark.
- Insert a blank line and then begin your project summary.
- Indent paragraphs 0.5 inches.
- Do not include figures and references in the project summary. If it is absolutely necessary to include them, they should be included at the end of the project summary and separated from the text by one blank line.

## Where do I send my project summary?

Email a copy of your project summary to Dr. Aidoo at aidoo@rose-hulman.edu as a pdf file. The file's name must be psgroupxx.pdf, where xx is your two digit group number. The subject must be psgroupxx.pdf.

Do not send using Google docs. Any project summary not named correctly or sent as Google docs will be returned to your faculty mentor.

## **Final Report**

Design reports document and communicate the results of technical work. Technical professionals need to communicate with various groups including their clients, supervisors, coworkers, and the wider community. The design report must describe the important features of a group's work with sufficient detail and clarity that the reader can understand your project.

Your report requires a cover page, project summary, introduction, and project reflection. All other sections in the report are optional and specific to the type of project described. The other sections of a Python programming report may differ from a slam-rod fire started project report.

### Required Format

- Final reports are single spaced using 12-point Times New Roman font.
- Use 1-inch margins all around.
- Number the pages of your final report with a footer that contains the page number. Footers are right justified on both the even and odd pages.
- The final report must begin with a cover page that includes:
  - o Team name and logo
  - o Eye-catching image representative of your project
  - Project info

"Final Catapult Report – Team xx"
Project title

- Names and schools of team members
- o Date report submitted.

- Do not include a table of contents for the final report.
- Your project summary is next.
- Begin your final report with an introduction section. The introduction section, and all later sections should begin with a title in 12-point bold Times New Roman font, followed by a blank line, and then the text. Two blank lines should separate one section from the heading that begins the next section.
- You must include a section entitled "Project Reflection" as the last section of your report. This section can be written as a group or can be written individually and combined. You must address the following aspects of your project experience:
  - o Reflect on how your team overcame any challenges functioning as a team.
  - Reflect on how the different knowledge, skills, and abilities (skillset) of each team member contributed to the completion of your project and how your team overcame any technical challenges to complete your project.
  - o Reflect on how your mindset contributed to the completion of your project.
- The report body should be six to eight pages in length not including the cover page and project summary. If you need to exceed the page limit check with your project advisor.

#### Where do I send my report?

Email a copy of your final report to Dr. Aidoo at aidoo@rose-hulman.edu as a pdf file. The file's name must be groupxx.pdf, where xx is your two digit group number. The subject must be groupxx.pdf.

Do not send using Google docs. Any reports sent via Google docs or not named correctly will be returned to your faculty mentor.

#### **Posters**

The poster presentation session is your chance to tell your project "story" to the other Catapult students and to the general public. You want to convey to the audience what you were trying to accomplish and explain your procedure or design approach. You also need to show how successful you were in accomplishing your goal. Your poster needs to attract attention and pique the curiosity of the audience – be creative. The poster must neat, well organized, and professional in appearance.

### Required Format

Your poster should clearly show your project title, group number, and names of group members. Poster display boards are available in the supply room. You are encouraged to prepare your poster using the provided template on Moodle. Do not use glue or tape to attach your poster to the poster board. Please use staples or push pins. Each group will be given a 4 foot by 2.5 foot table space to display their project.

## **Poster Talk**

Your poster is a visual aid that only tells part of your story. It aids the most important part of your poster presentation – the poster talk. This is where you tell your story. Your poster talk should be between two to three minutes. Remember, a good story has a beginning, middle, and an ending (Once upon a time ...... insert middle here ....... They lived happily ever after.) as well as a story line.