

## **COURSE PROJECT (20%)(teams of about 5)**

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**Length:** Minimum 1000 words per group member

**Style:** Technical Research Report

**Submit:** On Moodle; check your schedule or Moodle for due date

**Topic choices:** Working in small teams of about 5, you will choose one of the following topic options for your technical research report:

1. Research, analysis, and recommendations for creating software that competes directly with an existing program
2. Research, analysis, and recommendations on an issues-based technical topic
3. Research, analysis, and recommendations to address causes and effects or problems and solutions involved in a technical process

**STEPS in the group project:** After deciding on a topic, your group will collaborate to complete the following assignments: Project pitch; (4) Proposal & Project Plan; (5) Progress report; (7) Annotated Bibliography; (8) Project Presentation; (9) Course Project Report (as detailed on this page)

**PARTS of the final group report:** This is the capstone assignment of your group work in CMNS 123. The required components of the research report are as follows, regardless of which option you choose.

1. Cover page
2. Title Page (1 page). Contents:
  - o title of your report
  - o name, position and organization of primary reader
  - o your names
  - o date of submission
3. Table of Contents (1 page)
  - Provide a detailed list of all the sections of the report and the pages on which they begin
  - Number Table of Contents page with lower case Roman numerals (i)
4. List of Illustrations (1 page)
  - Includes all tables and figures and the pages on which they may be found
  - Number List of Illustrations page with lower case Roman numerals (ii)
5. Executive Summary (1 page)
  - Brief summary of the report. (After reading the abstract, even the least knowledgeable reader should have an idea of your findings and recommendations)
  - Number Executive Summary page with lower case Roman numerals (iii)
  - 1.5 spacing
6. Main Report (Minimum 1000 word contribution per group member)
  - Includes:
    - o an introduction
    - o a detailed discussion of your topic (likely organized into sections with headings)
    - o and a conclusion which offers recommendations to your readers
  - each main section should fall under its own section heading with appropriate subheadings
  - each main section should begin on a new page
  - single-spaced
  - numbering begins on the first page of the report (Arabic: 1)

- Glossary (optional) (include on Table of Contents)
  - gives alphabetized list of all specialized terms and their definitions
  - provides key definitions for non-technical readers without interrupting technical readers
  - **bold** terms defined in the glossary the first time they appear in the report
  - page numbered as part of the report
7. References (follows IEEE guidelines)
- page numbered as part of the report
8. Appendices (Optional)
- contains information peripheral to the text (but relevant)
  - each separate item has its own title (e.g. Appendix A: Sample Survey, Appendix B: Statistics)
  - each separate item starts on a new page
  - include on Table of Contents
  - refer to appendix in the report (as appropriate)
  - page numbered as part of the report
  - could include interview/survey questions and responses, price quotations, pamphlets, brochures, statistics, etc.

**INCLUDE GRAPHICS** : In addition to the textual requirements described above, technical documents typically include visual elements. Incorporate visuals into your report as a means of enhancing communication with your audience (i.e. to clarify visually something that may be complicated or confusing textually).

Graphics may include:

- pictures
- screen shots
- drawings and other illustrations
- graphs
- tables
- charts
- etc.

**CONSIDER AUDIENCE:** You are writing for a non-technical audience (i.e. the CEO of the company for which you are developing new software). This means you will need to:

- use clear, non-technical language
- avoid jargon
- write primarily in your own words (rather than extensively quoting from source material)
- clearly describe and communicate your goals

### RESEARCH RESEARCH RESEARCH

Research is an important component of any technical document. Information derived from thorough research should permeate all aspects of your report content. Before you engage in the exploration of any report topic, you need to:

- be aware of what is already available online
- have a clear idea of your real or potential client's needs
- be familiar with key sources on the topic of your choice.
- **Get help from me and/or the writing tutor incorporating secondary sources and using IEEE style.**

Accurate IEEE citations, paraphrasing and summaries are required. Attribution is essential when you are not expressing your own ideas. It is very easy to plagiarize information, so if at all in doubt, discuss use of sources in the early stages of your work and make sure all group members understand how to avoid improper citation.