**Research Proposal Specification**

## Prepare the proposal following the requirements below:

1. Page header:
   * Page number in the format (Page X of Y) must appear on the **top left corner** of every page.
   * Your name (Last name, First Name) must appear outside the set margins of the page, at the **top right corner** of every page;
2. Pages must be 8 ½" x 11" (216mm x 279mm);
3. Margins must be set at 1” (2.54cm) all round.
4. Explain any acronyms and abbreviations fully BEFORE the point of first use;
5. Pages must be single-spaced, with no more than six lines of type per inch;
6. **All text must be in 12 pt Times New Roman font**;
7. Condensed fonts will not be accepted;
8. All text should be black, and no colour images should be used;
9. **Title page** must contain the following – **all centred**:
   * Project title
   * Subtitle:
     + Theses proposal (CS4490Z/CS4460Z) or
     + Proposal: (CS3380F/G/Z)
   * Your name
   * Course name and number
   * Department of Computer Science
   * Western University
   * Date
   * Project supervisor name
   * Course instructor name: (Prof. Nazim Madhavji)

*IMPORTANT: Use* ***at least*** *the following section headers in your proposal.*

**1.Synopsis:** Provide a concise overview of the scientific or technical objectives, approach, and the new knowledge, expertise, or technology that could be created. Indicate the benefits expected to accrue to Canadian industry, to the academic institution, and to the scientific or engineering discipline. [300 words max.]

**2. Background:** Relate the proposal to current scientific, technical and commercial developments in the field, referring to the current literature and market conditions. Describe the background research on which the project is built. Include citations (Use APA Style. See: <http://pitt.libguides.com/c.php?g=12108&p=64730>). [1 page max.]

**3. Detailed proposal:**

* **3.1 Research Objectives**: [0.5 page max.]
  + Describe the general or overall “goal” first.
  + Describe the research “objectives” related to this goal. Note: goal and objectives are NOT the same thing. Goal is the final target (sometimes open-ended, e.g., improve a process); objectives are concrete, intermediate points along the way.

(see: <https://rapidbi.com/the-difference-between-goals-objectives/> )

* + Explain the objectives, including:
    - Significance of the objectives to the field of research
    - Significance of the objectives to the field of practice
  + Give the research hypothesis and/or important questions relating to the objectives
* **3.2 Research Plan**: [1 page max.]
  + Discuss the scientific/technical issues, research problems or technical complexities
  + Identify third-party systems, languages, and technologies used as part of your solution (e.g., incorporating an open source system or a software platform into your solution)
  + If creating a system, identify third-party tools and technologies used in the process of creating the system.
  + Give citations to the literature in the textual descriptions above
    - Use APA Style. See: <http://pitt.libguides.com/c.php?g=12108&p=64730>
  + Identify any threats to the validity of your study results or solution making
  + Describe how you intend to mitigate these threats
* **3.3 Research methodology**: [0.75 page max.]
  + Describe the research methodology and experimental design to achieve your goals and objectives.
  + If creating a system, explain:
    - its probable design and give justification
    - how you will validate the resultant system.

**4. Value of the results and industrial relevance:**[0.5 page max.]

* Describe the anticipated value of the project results *to the field of research*, i.e., how it advances any theory (or research baseline) in the field.
* Describe the anticipated value of the project results *to industrial practice*, i.e., how will it simplify decision-making or work-effort, save time and money, speed up task completion, etc. Be specific, giving technical details of the anticipated product or processes.

**5. References**

* Use APA Style. See: <http://pitt.libguides.com/c.php?g=12108&p=64730>