

# Essay Instructions

You will write an essay with three primary ingredients:

- A subproblem of program comprehension (e.g., understanding change impact)
- 2 tools/approaches that address the subproblem (2 papers by different authors)
- At least 3 additional supporting papers from literature (must be program-comprehension related)

In particular, your essay must describe how the tools do or do not effectively address the subproblem. Analyze the various aspects of the subproblem and the features of the tools. Use the supporting papers from the literature to enhance your arguments.

Your essay must satisfy the following requirements. Failure to do so will result in deductions.

- LaTeX requirement:
  - Use the LaTeX template provided to create your essay. Do not change the style of the template in any way.
- Submission instructions:
  - Submit the PDF of your essay in the **Essay** eCourseware dropbox.
  - Submit a ZIP containing your LaTeX code in the **Essay (LaTeX Files in a Zip)** eCourseware dropbox. I will build a copy of your PDF from these sources. The PDF I build had better match exactly the one you submit in the Essay dropbox.
- Plagiarism warning:
  - eCourseware automatically does plagiarism detection. You must score no higher than 20%; if you do, you will earn 0 points on the essay. Do not copy/paste text into your document. Always paraphrase when borrowing ideas from other documents.
- Length requirement:
  - 3000-word minimum—not including front matter and references. Checking the word count for PDFs is a bit tricky. I plan to use UNIX-type tools to do it. In particular, I'll use “pdfminer” tools to convert each PDF to text, and then use the UNIX “wc” command to do the word count on the text file.
- Reference requirements:
  - Reference at least 8 conference papers or journal articles. (Books, webpages, etc. do not count.) Although your paper should emphasize 5 papers on program comprehension, you must reference at least 3 other papers (which may or may not be specifically about program comprehension) in making your argument(s).
  - Here is the information required for various reference types (commonly included in citations gotten from the ACM and IEEE Digital Libraries):
    - Journal articles: full author list, article title, journal name, year, page numbers (e.g., 25–34), volume number, and issue number (if available).
    - Conference papers: full author list, paper title, full conference name, year, and page numbers.
    - Books: full author list, book title, publisher, year.
- Writing/Grammar requirements:
  - Use correct spelling. (Use a spellchecker.)
  - Use correct grammar. (Have someone proofread your work.)

- Convey your ideas in a clear and concise manner. (See the myriad of writing guides available on the Web and in your local library.)