

MACM 316 – Guidelines for Computing Assignments

General Expectations. Computing assignments are designed to allow you to explore and develop a deeper understanding of the numerical algorithms discussed in lectures. The main focus of MACM 316 is not as a programming course, so these assignments concentrate on using (and modifying) relatively short Matlab codes, observing their output and behaviour, and analysing results both quantitatively and qualitatively.

The content of your written reports should not only explain the code you have run, but also demonstrate your understanding of why (or why not) it was useful/correct. In other words, I expect you to explain the main things you have done, state clearly what you have observed and learned, justify any code changes/additions or parameters choices, etc.

Basic Format. Your computing assignment must be submitted as a single, two-page PDF file. The first side is your written report and should fit all discussions, data and figures into a single page. The second page should contain only your Matlab code. Any submissions that are over this length will receive a mark of zero. Reports must be uploaded to Crowdmark by the deadline, using the link provided to you by your TAs.

Written Communication. The purpose of your written work is to communicate your ideas to the reader. The quality of this communication necessarily reflects your level of understanding of the assignments. Consider your fellow students as your target audience – this is the level at which graders will be evaluating your work. Focus on “the three C’s”:

- *Clarity:* Organize your assignment around key ideas. Write in complete sentences. Produce clearly labelled tables/plots/graphics, and also explain the information contained in them.
- *Conciseness:* Your written report is limited to one page, including all tables, plots and graphics. Streamline your presentation while also getting the main ideas across. Keep the discussion short and to-the-point.
- *Correctness:* Check your work carefully for mistakes. Does your data make intuitive sense? Any odd or surprising results may suggest a bug in your code. Are your conclusions logical? If in doubt, discuss the problem with others.

Collaboration. I encourage you to discuss problems with other students and the TAs, but your written submission must be your own work. You must acknowledge any collaborations or contributions from the instructor, TAs, Canvas discussions, etc. If you make use of any other sources (books, web sites, ...) then you should cite them and ensure you paraphrase the text in your own words.

Graphical Presentation. Any plots you include must be labelled completely, including titles, axis labels and legends. Clearly identify important features in your figures – don’t leave it to the reader to discover for themselves. Annotate the figures as needed (writing directly on your plots is fine). For each plot, be sure to indicate what has been computed – the reader should be able to reproduce your results.

Grading Scheme. Reports will be graded on a scale of zero to ten, roughly as follows:

- 10:** Exemplary writing and presentation. Clear interpretation of computed results.
- 8:** Good writing and presentation. Clear interpretation of computed results. Small details are either missing or unclear.
- 6:** Significant details are missing or incorrect. There is only evidence of an average learning outcome.
- 4:** Major components are incorrect or incomplete. Below average evidence of learning outcomes.
- 2:** Poorly communicated and/or incorrect results. Primary learning objectives have not been met.
- 0:** Incomplete or plagiarized work.