

INSTRUCTIONS

All homeworks will have many problems, some theoretical and practical. You will need to upload some files via CANVAS following the following rules.

1. Solutions must be typeset using LaTeX or a professional word processor with formulas. No handwritten solutions will be accepted.
2. Be organized and use the notation appropriately. Show your work on every problem. Correct answers with no support work will not receive full credit.
3. When writing your project report you must think of this as a report to your future boss. Be concise, organized, clean, and explain things clearly and directly.
4. Your report must start with the statements of the homework problems (copy the pdf I gave you as a cover). Theoretical questions can simply be given an answer (e.g., a proof or a solution), but programming Projects will have be responded in 3 parts (grading will take into account each part separately!)
 - Analysis: This section must describe the differential equations involved (E.g., are they well-posed? unique solution?) This section must describe the algorithms you will use and why, e.g., describe any proofs of convergence or error bounds that are required.
 - Computer code: Your code should be well-commented and indented code. Input and output should be very clearly explained and an example of how to use the code must be given in each code.
 - Experiments: This part shows the computations requested on the problem, graphs, comparisons. If a method fails to solve a problem, you must explain why. If there are anomalies explain them too.
5. Be mindful of the quality of your writing. You must hold high standards of grammar and English use. Proofread what you wrote, find typos and mistakes. You will not receive full credit if the report is not perfect.