Complexity and Networks Course 2022-2023

Project Report Guidelines & Submission

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11th January 2023

Report Guidelines

- We will mark **two separate reports**, one for the **Complexity project** and one for the **Networks project**. Each will carry equal weight of 45% of the marks for the course. The remaining 10% will come from the 4 compulsory online multiple questions test during the course.

- **Size limits:** Part of the challenge is to select the material used and to be concise. Hence, the size limit for each project report is **2500 words** (excluding front page, abstract, figure captions, table captions, acknowledgement and bibliography). An estimate of the number of words used MUST be given at the front of each report. In addition, **reports may not exceed 16 pages in total (excluding front page and ultimate acknowledgement and bibliography page), using 12pt font and minimum 2.5cm left and 2.5cm right margins**. Please do **NOT** include appendices. Lengthy reports will be penalised. For (LaTex) template, see zip file ProjectReportTemplate.zip which includes ProjectReportTemplate.tex and ProjectReportTemplate.pdf

- The report should include brief descriptions of the aims and methods, a summary of the results, a brief discussion, and a conclusion. Your focus will depend on how far you get through the tasks. We suggest that you present the results following the order of the tasks given in the Project Notes, see answer to student question on next page.

- Marks will be awarded for: (a) [weight $\sim 75\%$] correct results achieved; understanding of physics and underlying theory; sensible presentation, interpretation and explanations of the results, soundness of conclusions drawn and discussions of implications, and (b) [weight $\sim 25\%$] organisation and general quality and presentation of reports. The quality of actual programming is only awarded indirectly as it allows you to produce correct results. Likewise, clever and sophisticated programming is only awarded indirectly as it would allow you to produce results faster and with better statistics.

- Some additional points to remember: Try to be selective in the choice of results to present within each task. Choose your graphs carefully to illustrate typical results, to convey important information, and to make relevant comparisons. Make sure to label figures appropriately and give them proper captions that clearly explain what is plotted, what you see, emphasising the point(s) you want to convey to the reader without any reference to the main body of the text. If you use software, e.g. to fit curves, please explain all symbols, parameters etc. displayed. If appropriate, make good use of tables. Incorporate graphs and tables within the main text. Whenever appropriate, give mathematical details in the report, but keep it concise.

- Your source code should be commented appropriately and easy to read. You should NOT explain the programming itself in the report except for brief comments on any "tricks" or strategies used to make the code better or more efficient.

- *Typical Question*
  I was wondering about how we are expected to structure the report for the Complexity project. Should it have the regular format of:

  - Abstract
  - Introduction
  - Theory
  - Method
  - Results and Discussion
  - Conclusion

  or would it be better to just go straight into the results after a brief abstract?

  Answer: The format of the report is totally up to you. Having said that, the report should certainly have an abstract and a general introduction putting the work into a greater context. With respect to the rest, I think the report would "flow" better if you address the matter task by task, that is, discuss relevant methods and/or theory associated with the task at hand. We are looking for sensible presentation, interpretation and explanations of the results, and soundness of the conclusions you can draw from your results. Finally, a summary conclusion (brief) should be included as well.

Submission - open from Wednesday 18 January at 09:00

We require the following:

- The **two reports** and the **complete source code** for each of the two projects must be submitted through the *Complexity and Networks 2022-2023* Blackboard web site.
- Each report must be submitted in PDF format only. This component of your submission will be plagiarism checked via *TurnItIn*. Please name your report with your CID number and project, that is, **CIDNumber-ComplexityReport.pdf** and **CIDNumber-NetworksReport.pdf**, e.g. **CID00160169-ComplexityReport.pdf** and **CID00160169-NetworksReport.pdf**.
- For each of two projects, your complete collection of source code must also be uploaded along with a SECOND pdf copy of the associated report. The code is also checked using plagiarism software.
  - Put source code file(s) into a single ZIP file before uploading.
  - The name of the zip file should include your CID Number and project, i.e., **CID00160169-ComplexityCode.zip** and **CID00160169-NetworksCode.zip**.
  - All files required to compile must be present. Standard libraries are not required.
  - Put a copy of your associated report PDF in these ZIP files. This is done because *TurnItIn* may reduce the quality of the first PDF and it is in your interest to make sure assessors can access the best quality version you produced
- The deadline is **10:00 London time on Monday 20 February 2023** for the Complexity project and **10:00 London time on Monday 27 March 2023** for the Networks project. This will be imposed automatically by the system. Note that it is College policy that any work submitted up to 24h after the deadline will be **capped at the pass mark** while any work submitted more than 24h after the deadline will incur **zero marks** unless you have a valid excuse.
- The Blackboard web site will allow you to update any submission with a later version. So we STRONGLY recommend that you plan to submit a version well before the deadline (say at least 24 hours) then update this with final changes nearer the time.
- Do not submit at the last minute. It is your responsibility that you get a copy of your work submitted with due allowance for technical problems. If your laptop cannot connect to the web site from your location in the last minute, this is **not** an acceptable mitigating circumstance. Only problems with Imperial College London systems will be taken into account or normal mitigating circumstances are acceptable. This is now a college rule and we can not change this. So please take steps to insure against this: Test the system by uploading an initial version days before the deadline, finish your work in good time, upload a final version 24 hours before the deadline.
- If there are any technical problems with your submission, you may as a last resort send the relevant lecturer a copy of the required files by email. You **must** also fill out the usual mitigating circumstances form. We will *only* use such submitted material if and when the mitigating circumstances have been accepted by the appropriate authorities.

- The standard rules for mitigating circumstance apply. If there are any issues which you feel effected your work or prevented you from meeting the deadline you must submit a mitigating circumstance form. You should then inform the two lecturers and your personal tutor.