M2R Second Year Group Project 2018

The purpose of the group project is to encourage team work and communication skills, required in any kind of research or in employment. The time allowed for the project is short and groups will need to get themselves organised. The mathematical content of each project is important, but so is the process of working with others to produce a report, and to prepare an oral presentation to a strict deadline.

The project counts towards your second year mark, its weighting being half that of a lectured module. But you are reminded that a pass in the group project is required to proceed to the third year in October.

Project Options

You will each be ask to submit (via Blackboard) your preferences for a project area. The areas are:

- Pure Mathematics: Algebra, Number Theory, Geometry
- Pure Mathematics: Analysis
- Mechanics
- Applied Mathematics (except Mechanics)
- Statistics

Options should be submitted by **Monday 7th May**.

Most students who submit preferences will be allocated to their first choice project area, but almost certainly not all. I hope to give everybody either their first or second choice, but cannot guarantee it. How many people can be allocated to each of these areas will depend on the number of available supervisors. (In recent years, the Statistic option has usually been oversubscribed.)

Note that these areas do not partition the set of all Mathematics. Some projects do not fall naturally into any group, others fall into more than one category. So you may find yourself working on Theoretical Physics in an Analysis project, or Probability in an Algebra project, or Combinatorics in an Applied Mathematics project (all of which have been seen in recent years).

Beyond these options, I am not usually able to take into account any requests from students to work on particular types of projects. You can ask if you want, but don't be too hopeful. Note that, as a matter of principle, I will ignore any requests to be put in a group with your friends, or to work with a particular supervisor.

Project Groups

You will be allocated to groups of 4 or 5. These allocations won't be changed (except in extreme circumstances). Each group will be allocated a supervisor.

We will hold a meeting at the start of the project period on **29th May** (probably), at a time and place to be announced, during which you will be told your group, your supervisor, and the project topic. We will also tell you what time to meet your supervisor for the first time; in most cases this will be shortly after the meeting ends.

Any disputes within a group during the period of the project should be dealt with by the group themselves if at all possible (perhaps with the mediation of the supervisor). If that fails you should come to me or to Inkeri. At the end of the project period each group will be asked to

submit a short account how the work was divided between the members of the group, and of any serious difficulties which arose.

Supervisor support

You should make sure to arrange regular meetings with your supervisor. As a guideline, you might reckon to meet with them for two 30 minute sessions each week. The scope and detail of the project is very much the responsibility of you as a group, but the supervisor will give advice and encouragement, and will suggest suitable reading. Any difficulties with arrangements for supervisions should be referred to me.

Oral presentations

These will take place at the **Second Year Project Conference**, which we expect to hold on **18th, 19th, 20th June.** A timetable will be produced in due course. Each group will have a slot allocated; I expect to schedule 25 minute slots for groups of 4, and 30 minute slots for groups of 5. Each group member should aim to speak for 5 (consecutive) minutes. There will be a few minutes for questions at the end. Whiteboards and projection facilities will be available; you may use either, or a combination of both.

Your audience will be fairly large. There will the two staff assessors, the two other groups presenting in the same session as you, and up to three other groups who will be there as peer assessors. And other staff and students may come along to hear you too. Your object should be to entertain, as well as inform, this audience. Be aware that large numbers of complicated slides do not generally lead to a good presentation!

You will be expected to attend the whole of the session in which your group is scheduled, and the further session at which you are scheduled to be present as a student assessor. You are invited to attend as many other sessions as you like. You will be able to submit peer assessments for any presentations you watch (but not for your own group!).

There will be coffee and sweet things laid on after each session; please mingle.

Oral title and abstract

You will need to provide me with a title and an abstract for your presentation by Friday 15th. June. This is what will appear in the conference programme. The presentation title doesn't have to be the same as your report title. The abstract should be short (no more than two paragraphs) and should be as informative as possible about the subject of your talk without going into technical details. Regard it as a sort of advertisement for your talk!

Last year's conference programme is up on Blackboard, so you can look at that to get an idea of the sort of thing we want.

Written report

This should be a joint report by the whole group. No part of it should be copied directly from other written material. **The whole group is responsible for ensuring that no part of the report is plagiarised.** If you are concerned that someone in your group may be copying, you should discuss it with them, discuss it with your supervisor, discuss it with me, discuss it with Inkeri, or discuss it with the Senior Tutor. Or all of the above.

The report should be produced using LaTeX. It should have clear organisation, and should include a contents list and a list of references. The suggested length is about 20-25 sides (of double-spaced A4) for a group of 4, or about 25-30 for a group of 5. But these guidelines are not rigid. You can put supplementary material in appendices if you want to.

You will be required to submit your project, by this deadline, in no fewer than three different ways:

1. A hard copy to the UG office. You must complete a coversheet, which will incorporate an anti-plagiarism statement *"This is entirely our own work unless otherwise stated"* which must be signed by the whole group.
2. Electronically on Blackboard. An individual page will be created for each group in advance of the deadline date. Only one person from each group needs to do this.
3. Email copies to your supervisor and to me. (This is to speed up the marking process.)

Referencing

All sources, including web pages, should be fully referenced in the bibliography, and indicated in the text itself. Any help from outside the group should be acknowledged. If you copy text or diagrams from a book or a journal or the internet or another person this **must** be acknowledged in the text, and there must be a corresponding reference in the bibliography. All members of the group are jointly responsible for ensuring that this has been done in all parts of the project. **Reports with inadequate referencing may be penalized or even failed.**

Grading

Credit for the project will be allocated as follows:

Written report (80%)
Presentation – 25%; Basic Contents – 25%; Teamwork and Initiative – 30%
The project will be marked by two members of staff with expertise in the broad area of the project. Usually, every member of the group receives the same mark for the written report.

Oral presentation (20%)
The mark is largely based on the assessment of the staff assessors. The marks of the student assessors will also be taken into account, and will make up a fraction (probably 1/4) of the grade for the presentation. The staff assessors will award individual marks for each student presenting.

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Project Coordinator
20th March 2018