Portfolio Marking: SOR3012

MathsNET
A joined up approach to teaching and learning mathematics

One of the components of the assessment for this module is a portfolio of work that you must produce over the course of the semester. This portfolio counts for 45 percent of your final module mark. It should contain:

(A) 10 reports describing what you have worked on each week. These reports are due by 16:00 on Tuesday in weeks 2 through 12 of the semester. See the self study section of the markscheme below.

(B) Three attempts at the projects detailed in either the extend or final project sections of the module pages. You should attempt as many of these projects as you can over the course of the semester and hand in the three that you felt were your best attempts by 16:00 on the Tuesday of week 13. You should not hand in the project on random variables that you produced in week 4 for this assessment to be reassessed as this project is already assessed as part of a different module component. On my website you will notice that each project has been ascribed a level of difficulty that ranges from 1 to 4. As explained below the level acts as a guide on the maximum mark that you can get by handing in that particular project. If you choose to submit level 1 projects for instance you can score a maximum of 24/40. To be clear, however, this does not mean you should not attempt the easier projects. You should in fact ALWAYS start with an attempt on the level 1 projects before moving on to the harder projects as poor attempts on the harder projects will most likely fail. In short, I would rather see good attempts at the easier projects than bad attempts at the harder projects.

Notice that tutorials and the computer classes are compulsory and that you will be awarded a mark of zero for the portfolio project if you do not attend 70 percent of the tutorials and computer classes. In addition, notice that your portfolio will be awarded a mark of zero if it does not contain all of the components detailed above (10 weekly reports and 3 projects).

1 Self study

The first component of the assessment is based on how you have studied for the module. You must hand in a report that is at least half a page in length every week in which you detail what, when and how you intended to study during the week and what you actually achieved during the week. You may choose to detail what resources you have used and what parts of the material you found easy and what you found difficult. You might also want to talk about any conversatiosn you had the lecturer/teaching assistants. You should also explain what resources you studied from and what resources were particularly useful. Lastly, you should demonstrate that you have thought about what you did this week and how you might study more effectively in the future.

Classification	Range	Quality
Excellent	4-5	The student outlines a clear plan detailing what and when they will study each week. There is evidence that the student thinks about how well their plan has worked at the end of each week and evidence that they have though how to refine their plans in subsequent weeks. They reflect well on their previous work and feedback and learn by evaluating both positive and negatives.
Good work	2	The student outlines a clear plan detailing what and when they will study each week but evidence that they have though about how well this plan is working is absent. The student reflects on previous work and feedback and evaluates both positive and negatives. There is, however, little evidence that they are refining how they are studying as the semester progresses, however.
Adequate	1	Some evidence that the student plans what items to study each week. There is some evidence to support reflection although there could be more reference to previous work. A discussion that has a no balance between discussing of what has worked and what has not worked is absent.
Fail	0	No evidence of regular self study. No evidence of reflection. Less than 75 % attendance at tutorials and computer lab classes

2 Mark capping for projects

As discussed above each project has an associated level of difficulty and the marks that you will receive will be capped based on the level of difficulty of the projects you attempt. To be clear, the expectation is that you attempt A LOT of the projects and that you decide what you can and cannot do yourself. In other words, attempt the projects at levels 1, 2 and 3 before attempting the projects at level 4. Please do not feel pressured to attempt projects that you do not understand in order to get a higher mark. If you do so you will most likely get a very poor mark as I would rather see the easier projects done to a high standard than the harder projects completed to a very low standard. Also note that I would like to see you attempt projects from all the chapters of the module. Please do not submit level 1, level 2 and level 3 projects that are all on the central limit theorem. If you do this your portfolio will be given a very low mark.

Classification	Range	Quality
Level 4 (high first)	Max 40	This will be the projects that appear on the final project page. To score marks this high you are expected to find a problem to solve yourself and to develop a strategy to solve the problem you thought of using the material you have learnt. You can also design your own problem without using the prompts on the final project pages but please discuss what you would like to do with me first.
Level 3 (low first)	Max 32	These projects appear on the extend pages and are marked level 3. These projects ask you to use material that you will learn by doing the blockly exercise together with material that you have learnt about in other parts of the maths course to solve a problem that has some marked difference from the one you encountered in the blockly exercises. You will need to use many of the ideas that were introduced in the blockly exercise to solve the new problem, however.
Level 2 (2.1)	Max 28	These projects appear on the extend pages and are marked level 2. These problems will involve the material that you have learnt about by doing the blockly exercises to solve a problem that is similar to the problem you worked on in the blockly exercise.
Level 1 (2.2)	Max 24	These projects appear on the extend pages and are marked level 1. Essentially what you are asked to do for these projects is to transfer what you learnt to do by performing the blockly exercise to a python notebook.
Level 0 (3)	Max 16	These projects appear on the extend pages and are marked level 0. These projects involve no programming and involve you simply finding a mathematical derivation that is in the notes and reproducing it in your own words.

3 Final mark

When marking a project I will award the first 16 marks if your project does not contain grevious errors. To be clear the expectation for project work is that all the mathematics in your report should be correct. Your report will then be given a mark out of 8 using the scale below. This mark will then be multiplied by a 1 if the project is level 1, 1.5 if the project is level 2, 2 if the project is level 3 and 3 if the project is level 4. If the project is level 0 you will get a maximum of 16 marks.

Your final mark portfolio mark is the arithmetic mean of the marks that you obtain for the three projects. Remember, however, that you you must submit three projects from three different chapters of the module and that penalties will be applied if you submit more than one project on the same chapter. For example if you submit a level one and level four project on the same chapter the level four project will be marked as if it is a level 1 project.

Portfolio Marking: SOR3012

MathsNET
A joined up approach to teaching and learning mathematics

Classification	Range	Quality
Outstanding	7-8	A piece of software that solves the problem is provided and error bars for all averages are quoted. The explanation as to what work has been done is clear, concise and transparent.
Excellent	5-6	A piece of software that solves the problem is provided and in addition error bars are quoted for all the averages that have been computed. What has been done is explained reasonably clearly although it lacks precision in places.
Good work	3-4	A piece of software that solves the problem is provided together with a partial explaination of how the code works that lacks precision in places. Importantly, the report contains no careless presentation errors although error bars on some of the averages that have been computed might be absent.
Adequate	1-2	The student demonstrates an incomplete understanding of the problem. A piece of software that only partially works is provided. There is little to no explanation as to how the code operates. The report contains careless presentation errors such as unlabelled axis in graphs or undefined symbols in equations.
Pass	0	To be clear a pass here means that you are awarded 16 marks for your project only. Anything better than a pass is awarded these 16 marks plus the mark for that level of work (see above) multiplied by the appropriate scaling factor for the project difficulty. A pass mark will be awarded unless there are grevious mistakes in the work that you produce. This is the maximum mark you can obtain by doing a level 0 project that involves no programming.
Fail	0	Students attends less than 70 percent of the tutorials and computer classes. Student fails to hand in all the work that is required for the portfolio.