

Project III Double Module Marking Guidelines 2016-2017

Notes for students and markers

Oral presentation and poster.

The oral presentation and poster are assessed independently by the project supervisor and another staff member. The assessment takes into account the features shown on the *Poster and Presentation Assessment* form. The oral presentation and poster comprises 15% of the marks for this module. The final presentation mark, which is decided on the basis of the grades given by the two markers, is reviewed and confirmed by the Board of Examiners in Mathematical Sciences.

Written report.

The written report is expected to be 40 to 60 pages in length (A4 paper size, 11pt font size, and standard LaTeX margins), and at a level of exposition appropriate to a 3H audience. The report is marked independently by the project supervisor and another staff member. The Supervision Record includes a meetings diary recording date, duration and participants, together with a few lines summarising the discussion and advice given. This is an aid to the markers to help indicate the level of assistance that has been provided. In all cases, markers consider what is achieved relative to what can reasonably be expected in order for a candidate to attain full marks. The written report comprises 85% of the marks for this module. The final report mark, which is decided on the basis of the grades given by the two markers, is reviewed and confirmed by the Board of Examiners in Mathematical Sciences.

Assessment guidelines for the written report.

The following guidelines are grouped by classification, with the intention that a project being awarded a mark within a certain class should normally possess the features for that class. Of course, projects typically exhibit features of different classes, in which case a reasonable balance should be sought. The kinds of features listed here are the kinds of feature one might look for in a project, not the features a project must necessarily possess.

General guidelines are marked • below. Guidelines particularly pertinent to projects with an element of applied work are marked * below. Guidelines particularly pertinent to projects which are more concerned with mastering known theory are marked ‡ below. A checklist is shown at the end of these guidelines and is included as part of the marking form. Markers are required to indicate general levels of achievement using at least some of the check boxes, and these should be compatible with the mark given. *The mark given, and the weighting of marks for different characteristics, is at the discretion of the marker.*

Feedback on the draft report.

Feedback provided by supervisors must relate directly to the assessment criteria given below, so that students have an explicit understanding of what they are aiming to achieve and how they can go about improving their work. A copy of feedback is retained as part of the Supervision Record.

Rationale for mark awarded for written report.

Examiners are provided with a mark form for each report marked. Examiners must provide, on that form, a brief rationale for the mark awarded, **making explicit reference to the assessment criteria given below**. This is for the benefit of external and other examiners. Examiners should not write on the written report.

Class I, 70-100

- The report is well organised into sections and appendices, with appropriate introduction, conclusion, and table of contents. The notation, diagrams, graphs and tables are well chosen and used fittingly. A full bibliography is supplied and citations are properly made. Grammar, spelling and typography are correct.
- Excellent general communication of the material at its intended level of exposition. No weaknesses in presentation of material.
- Evidence of significant insight and original thought in communicating the critical issues.
- Relative to the difficulty of the material, the candidate required little technical help from the project supervisor.
- Excellent command of expression and logical argument in a skillfully structured report.
- Superior coverage of appropriate material.
- Wide coverage of relevant literature.
- Superior evaluation and integration of relevant literature.
- ‡ Evidence that the candidate has mastered substantial new material at or beyond the level of 3H.
- ‡ Excellent choice of illustrative examples.
- ‡ Insightful and pertinent analysis of novel examples.
- ‡ The project forms a model for a 3H course comprising the subject of the material.
- * Correct and appropriate application of known methodology to a novel area of application.
- * Evidence of careful attention to critical design issues in the execution of applied aspects of the project.
- * Insightful and appropriate choice of data analysis and excellent presentation and reporting of results.
- * Clear and coherent interpretation of the data, and/or the results of other studies.
- * Comprehensive understanding of the importance of the results in the context of the theoretical framework.

Overall: Look for evidence of originality and that the student has mastered material beyond 3H level, and at the level of technical guidance required. A report which is flawless but unoriginal and limited in scope to material at 3H level should not normally be considered for a strong first-class mark.

Class I, 90-100: The student shows excellence in all criteria, substantial evidence of originality in approach and interpretation, confident mastery of the content and complexity of the topic, and abundant evidence of background research. The student worked highly independently, with mastery of material beyond 3H level. The written report is authoritative and of publication quality.

Class I, 80-89: The student shows excellence in most criteria and a high degree of competence in the others. There is good evidence of originality in approach and interpretation, mastery of the content and complexity of the topic, and abundant evidence of background research. The student worked highly independently and shows understanding of material beyond 3H level. The written report is of, or near, publication quality.

Class I, 70-79: The student shows a high degree of competence in all the criteria, but does not meet the requirements for a strong first. A mark in this range might be appropriate where the student has tackled material of a very high level of difficulty, but without demonstrating a full grasp of it.

Class II(i), 60 - 69

- The report is quite well organised into sections and appendices, with appropriate introduction, conclusion, and table of contents. The notation is reasonably fitting, but shows minor inconsistencies. Diagrams, graphs and tables are presented well, but not outstandingly so. A reasonably sufficient bibliography is supplied and most citations are properly made. Grammar, spelling and typography show occasional minor lapses.
- Good communication of the material at its intended level of exposition. Minor weaknesses in presentation.
- Reasonable insight and some evidence of original thought in communicating the critical issues.
- Relative to the difficulty of the material, the candidate required some technical help from the project supervisor.
- The report is well written, logically argued and generally well structured.

- Coverage of appropriate material is sound without being excellent.
- Good coverage of relevant literature, with no major omissions.
- Good evaluation and integration of relevant literature.
- ‡ Evidence that the candidate has mastered substantial new material, generally at the level of 3H.
- ‡ Good choice of illustrative examples.
- ‡ Clear but prosaic analysis of novel examples, or imaginative analysis of standard examples.
- ‡ The project could, with some corrections, form a model for a 3H course comprising the subject of the material.
- * Generally correct and appropriate application of known methodology to a novel area of application.
- * Adequate design for the applied aspects of the project, although possibly containing minor but retrievable errors.
- * Choice of data analysis that is mostly appropriate for the design, with clear presentation of results.
- * Generally sound but pedestrian interpretation of results and their importance to the theoretical context.

Class II(ii), 50 - 59

- The report is adequately organised into sections and appendices, with appropriate introduction, conclusion, and table of contents. The notation chosen is suitable, but shows some major inconsistencies. Diagrams, graphs and tables are presented adequately. There are omissions from the bibliography, and some citations are missing. Grammar, spelling and typography show occasional lapses, some major.
- Acceptable communication of the material at its intended level of exposition. Some weaknesses in presentation.
- Occasional evidence of insight into how to communicate the critical issues.
- Relative to the difficulty of the material, the candidate required substantial technical help and guidance from the project supervisor.
- Generally competently written, although some problems exist in the logical organisation of the text and the way it is expressed.
- Adequate coverage of relevant literature, perhaps with some notable omissions.
- Provides an adequate coverage of the appropriate material, although it tends to be more descriptive than evaluative, and arguments are often disjointed.
- Acceptable evaluation and integration of relevant literature.
- ‡ Evidence that the candidate has mastered some new material, generally at the level of 3H.
- ‡ Illustrative examples are well-known, or not entirely appropriate.
- ‡ Some good analysis of examples, but with occasional errors or misconceptions.
- * Attention to the applied aspects of the project is generally adequate but is marred by errors and oversights.
- * Serviceable choice of data analysis, although other approaches may have been more appropriate.
- * The presentation of results lacks clarity.
- * Interpretation of results or other studies is adequate but limited.

Class III, 40-49

- The report is poorly organised and has only a passable introduction, conclusion and table of contents. The bibliography is inadequate and citations have been missed or are inappropriate. The notation used is barely adequate. Diagrams, graphs and tables are poorly drawn or presented. Grammar, spelling and typography show frequent lapses, some major.
- Barely adequate communication of the material at its intended level of exposition. Weak presentation of material.
- Little evidence of insight in communicating the critical issues.
- Relative to the difficulty of the material, the candidate required very substantial help and guidance from the project supervisor.
- The work is not well written and shows flaws in the structuring of logical arguments.
- Coverage of the appropriate material is weak, with insufficient information provided to support the arguments made, or conclusions drawn, within the project.
- Poor coverage of relevant literature, with several major omissions.
- Poor evaluation and integration of relevant literature.
- ‡ Little evidence that the candidate has mastered new material at the level of 3H.
- ‡ Few appropriate illustrative examples.
- ‡ Poor analysis of examples, with frequent errors or misconceptions.
- ‡ The project constitutes a poor set of notes for a 3H course comprising the subject of the material.
- * Serious flaws exist in the attention to the applied aspects of the project, making it difficult for the project to meet its aims.
- * Data analysis techniques are arbitrary or inappropriate.
- * The results are poorly presented.
- * Interpretations are superficial, demonstrating a weak understanding of the results and their relevance to the theoretical framework.

Fail, 0-39

- The report is badly organised and lacks features such as an appropriate introduction, a conclusion, a table of contents, a bibliography. The notation is inadequate. Diagrams, graphs and tables are badly drawn or badly presented. There are serious lapses in grammar, spelling and typography.
- Failure to communicate the material at its intended level of exposition. Inadequate presentation of material.
- No evidence that the candidate has considered how to communicate the critical issues.
- The candidate largely ignored advice and guidance, provided by the project supervisor, that might have raised the level of achievement.
- The work is very poorly written and shows a serious inability to structure and present a logical argument.
- Coverage of appropriate material is inadequate, with little information provided relevant to the claims made, or conclusions drawn, within the project.
- Little or no attempt to cover any relevant literature.
- Little or no attempt to evaluate or integrate relevant literature.
- Serious misunderstanding of key concepts and issues.
- ‡ No evidence that the candidate has mastered new material at the level of 3H.
- ‡ Few or no appropriate illustrative examples.
- ‡ Poor analysis of examples, with serious errors or misconceptions.

