

Examination Conventions

1. Introduction

These conventions apply to the MSc in Software Engineering and the MSc in Software and Systems Security, for the Academic Year 2020-21.

These conventions are approved by the Department of Computer Science's Supervisory Committee for Professional Programmes. No student will be disadvantaged by changes to conventions that occur during their period of registration.

Examination conventions are the formal record of the specific assessment standards for the course or courses to which they apply. They set out how examined work will be marked and how the resulting marks will be used to arrive at a final result and classification of an award.

2. Marking Conventions

2.1. University scale for standardised expression of agreed final marks

For students who started their courses **before** Michaelmas term 2018 only, agreed final marks for will be expressed according to one of the following scales:

70 – 100	Distinction
50 – 69	Pass
49 – 0	Fail

For students who started their courses **after** Michaelmas term 2018 only, agreed final marks will be expressed using the following scale:

70 - 100	Distinction
65 – 69	Merit
50 - 64	Pass
0 - 49	Fail

2.2 Qualitative criteria for different types of assessment

2.2.1 Written assignments

All submissions are awarded a numerical grade between 0 and 100.

A mark between 0 and 49 indicates that the student has failed to demonstrate an adequate appreciation of all the essential concepts and techniques and/or the ability to apply them, successfully and reliably, to a range of standard situations.

Mark Range **Interpretation**

0 - 9	Little progress has been made in tackling the assignment.
10 - 19	Some progress has been made, but the student has failed to demonstrate an adequate appreciation and understanding of any of the essential concepts and techniques.
20 - 29	The student has demonstrated an adequate appreciation and understanding of some of the essential concepts and techniques, but this represents less than half of the material tested in the assignment.
30 - 39	The student has demonstrated an adequate appreciation and understanding of most but not all of the essential concepts and techniques.
40 - 49	The student has demonstrated an adequate appreciation and understanding of all of the essential concepts and techniques, but has not yet demonstrated an ability to apply them, successfully and reliably, in a range of standard situations.

In each case, the mark within the range may indicate: the extent to which the student has demonstrated an appreciation and understanding of the essential concepts and techniques, or others that are relevant but not essential; the extent to which the student has demonstrated an ability to apply them; or the quality of the explanation and presentation.

A mark between 50 and 69 indicates that the student has demonstrated an adequate appreciation and understanding of the essential concepts and techniques and an ability to apply them successfully and reliably to a range of standard situations.

Mark Range **Interpretation**

50 - 59	The student has demonstrated an adequate appreciation and understanding of the essential concepts and techniques and an ability to apply them reliably and successfully. However, they have not demonstrated any greater understanding, nor have they demonstrated an ability to evaluate, select, and prioritise the application of different concepts or techniques according to the situation.
60 - 69	The student has demonstrated a greater appreciation and understanding, and an ability to evaluate, select, prioritise, and explain the application of different concepts and techniques according to context, within a range of standard situations. However, they are unable to demonstrate a depth of competence in some respects: in terms of the extent of the application; in terms of the quality of the explanation; or in terms of their ability to extend, adapt or refine the essential concepts and techniques.

A mark between 70 and 100 indicates that a student has demonstrated an excellent appreciation and understanding of the essential concepts and techniques, and has applied them to their full extent within the context of the assignment.

Mark Range **Interpretation**

- 70 - 79** The student has demonstrated an excellent appreciation and understanding of the essential concepts and techniques, and has applied them to their full extent. However, their work falls short of a model answer in terms of the quality and extent of the explanation and presentation.
- 80 – 89** The student has produced work that could be used as a model answer. The application is complete, and the quality and extent of the explanation and presentation is excellent.
- 90 – 100** The student has gone beyond that required for a model answer: through extension, adaptation, refinement, or clarification of the essential concepts and techniques; through their use in combination with other methods and tools; or through their application to non-standard situations.

2.2.2 Dissertations

All submissions are awarded a numerical grade between 0 and 100.

The specific challenge of the project and dissertation should allow scope for a convincing demonstration of professional competence and academic ability at Masters' level, and the student's understanding must be clearly demonstrated through a coherent, logical presentation of context, application, and reflection.

The dissertation must include an account of risk management in relation to the project work undertaken. It must include also a discussion of ethical, legal, social, and professional issues arising: either in the project, or in the broader application domain.

A mark between 0 and 49 indicates that the student has failed to demonstrate an adequate appreciation of the chosen application domain and/or the ability to understand and apply an appropriate selection of concepts and techniques to the specific challenge of the project and dissertation.

Mark Range	Interpretation
0 - 9	Little progress has been made in producing an appropriate dissertation.
10 - 19	Some progress has been made, but the student has failed to demonstrate an adequate appreciation of the chosen application domain.
20 - 29	The student has demonstrated an adequate appreciation of the application domain, and has chosen an appropriate selection of concepts and techniques, but has failed to demonstrate an ability to understand and apply the greater part of this selection.
30 - 39	The student has demonstrated an adequate appreciation, chosen an appropriate selection of concepts and techniques, and has demonstrated an ability to understand and apply most but not all of this selection.
40 - 49	The student has demonstrated an ability to understand and apply all of the selected concepts and techniques, but has not applied them, successfully and reliably, to the specific challenge of the project and dissertation.

In each case, the mark within the range may indicate: the extent to which the student has demonstrated an appreciation of the chosen application domain; the extent to which they have demonstrated the ability to understand and apply an appropriate selection of concepts and

techniques; or the extent to which the student has applied them to the specific challenge of the project and dissertation.

A mark between 50 and 64 indicates that the student has demonstrated an adequate appreciation of the chosen application domain and the ability to understand and apply an appropriate selection of concepts and techniques to the specific challenge of the project and dissertation.

It indicates also that the dissertation includes an adequate account of risk management in relation to the project work, and an adequate discussion of ethical, legal, social, and professional issues arising: either in the project, or in the broader application domain.

Mark Range	Interpretation
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50 - 59	The student has demonstrated an adequate appreciation of the chosen application domain and the ability to apply an appropriate selection of concepts and techniques. However, the student has not demonstrated any greater understanding, nor have they demonstrated an ability to evaluate, prioritise, or explain their application of the concepts or techniques.
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60 - 64	The student has demonstrated a greater appreciation and understanding, and an ability to evaluate, select, prioritise, and explain the application of different concepts and techniques according to context, within a range of standard situations. However, they are unable to demonstrate a depth of competence in some respects: in terms of the extent of the application; in terms of the quality of the explanation; or in terms of their ability to extend, adapt or refine the essential concepts and techniques.
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A mark between 65 and 69 indicates that the student has demonstrated a very good appreciation of the chosen application domain and the ability to understand and apply a good selection of concepts and techniques to the specific challenge of the project and dissertation. It however falls short of the criteria for excellence.

It indicates also that the dissertation includes an adequate account of risk management in relation to the project work, and an adequate discussion of ethical, legal, social, and professional issues arising: either in the project, or in the broader application domain.

Mark Range	Interpretation
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65 – 69	The student has demonstrated a very good appreciation and understanding, and an ability to evaluate, prioritise, and explain their application of concepts and techniques. However, their submission falls short of excellence in some respects: in terms of the extent of the application; in terms of the quality of their explanation; or in terms of their ability to extend, adapt, or refine the concepts and techniques.
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A mark between 70 and 100 indicates that a student has demonstrated an excellent appreciation and understanding of the concepts and techniques, and has applied them to their full extent within the context of the project and dissertation.

It indicates also that the dissertation includes an adequate account of risk management in relation to the project work, and an adequate discussion of ethical, legal, social, and professional issues arising: either in the project, or in the broader application domain.

Mark Range Interpretation

- 70 - 79** The student has demonstrated an excellent appreciation and understanding of the essential concepts and techniques, and has applied them to their full extent within the context of the project. However, their work falls short of a model dissertation in terms of the quality and extent of the explanation and presentation.
- 80 – 89** The student has produced a submission that could be used as a model dissertation. The selection and application of concepts and techniques is complete in context, and the quality and extent of the explanation, presentation and reflection is excellent as is the discussion of the ethical, legal, social and professional issues.
- 90 - 100** The student has produced a dissertation that exceeds expectations, not only in terms of the excellence of explanation, presentation and reflection, and the application of an appropriate selection of techniques, but also in terms of the quality and novelty of that application: for example, through the extension, adaptation, refinement, or clarification of the concepts and techniques, their use in combination, or their application to non-standard situations. The account of the project work, including the approach taken to risk management, is excellent, as is the quality and extent of the discussion of ethical, legal, social, and professional issues.

2.3 Verification and reconciliation of marks

2.3.1 Written assignments

For papers for which there is a model solution and marking scheme approved by the examiners, each script is marked by an examiner or assessor and is checked independently to ensure that all parts have been marked and the marks and part-marks have been correctly totalled and recorded.

Where assignment questions do not have a precise model solution and marking scheme the assignments will be independently double-marked by two examiners or assessors. When double-marking results in discrepancies of judgment between the two markers, the appropriate reconciliation will take place; the markers will identify the reason for the difference and agree an appropriate mark.

2.3.2 Dissertations

Each submitted dissertation will be assessed separately by two markers, who each provide a report and a recommended grade. The two assessors will then attempt to reconcile their reports and arrive at an agreed mark. If they can't agree on a mark, another examiner may be asked to arbitrate.

2.4 Short-weight convention and departure from rubric

A mark of zero shall be awarded for any part or parts of questions that have not been answered by a candidate, but which should have been answered.

2.5 Penalties for late or non-submission

Written assignments submitted late will not be accepted. A student who fails to submit by the deadline for a particular assignment will be deemed to have withdrawn from that part of the examination. They may register to take a subsequent assignment in the same subject, provided that

another module in that subject is scheduled within their period of study, without the need to attend the teaching week for that module.

A student may choose to withdraw an existing submission for an assignment at any point before the deadline. In this case, they are deemed to have withdrawn from that part of the examination, exactly as if no submission had taken place. Again, they may register to take a subsequent assignment in the same subject, without the need to attend the teaching week for that module.

Dissertations submitted late will not be accepted.

2.6 Penalties for over-length work and departure from approved titles or subject-matter

Dissertations

Dissertations should be submitted in A4 format, with a normal font size no less than 10pt and no greater than 12pt, and margins no less than 2cm and no greater than 2.54cm. As stated in the regulations, they should not exceed 20,000 words in length, excluding diagrams and appendices. Submissions that are clearly in violation of these constraints may not be considered by the Examiners.

Where a candidate submits such a dissertation, the title or subject matter which differs from that which was approved by the supervisory body concerned, the examiners, if they agree to proceed with the examination of the work, may similarly reduce the mark by up to 10 marks.

Assignments

Assignments should be submitted in A4 format, with a normal font size no less than 10pt and no greater than 12pt, and margins no less than 2cm and no greater than 2.54cm. They should normally be no more than 25 pages or 10,000 words, excluding diagrams, images and appendices.

Submissions that are clearly in violation of these constraints may not be considered by the Examiners. Where a candidate submits such an assignment, the examiners, if they agree to proceed with the examination of the work, may similarly reduce the mark by up to 10 marks.

2.7 Penalties for poor academic practice

Less serious instances of poor academic practice can be dealt with by the examiners through the deduction of a maximum of 10 marks for a particular piece of work. More serious cases, and cases where the penalty applied by the examiners would result in failure of the assessment and the programme, must be referred to the Proctors.

Detailed guidance can be found here:

https://www.admin.ox.ac.uk/media/global/wwwadminoxacuk/localsites/educationcommittee/documents/policyguidance/Plagiarism_procedures_guidance.pdf

3. Progression rules and classification outcomes

3.1 Qualitative descriptors of Distinction, Merit, Pass, Fail

Outcome	Interpretation
Distinction	The student has demonstrated an excellent appreciation and understanding of the essential concepts and techniques.
Merit	The student has demonstrated a very good appreciation and understanding of the essential concepts and techniques.
Pass	The student has demonstrated an adequate appreciation and understanding of the essential concepts and techniques.
Fail	The student has not demonstrated sufficient appreciation and understanding of the essential concepts and techniques.

3.2 Final outcome rules

For the Degree of MSc in Software Engineering

To be awarded a pass in the MSc, it is normally sufficient to:

- attend modules and submit assignments in 10 different subjects, of which 6 or more need to be in Software Engineering (as defined by the degree schedule)
- achieve an average grade overall of 50 or more in those assignments
- achieve an average grade of 50 or more in the 6 best Software Engineering assignments
- attend a project week
- submit a dissertation that was approved as a topic in Software Engineering
- achieve a grade of 50 or more in the dissertation

To achieve a merit award in the MSc, it is normally sufficient to:

- attend modules and submit assignments in 10 different subjects, of which 6 or more need to be in Software Engineering (as defined by the degree schedule)
- achieve an average grade of 65 or more in those assignments
- achieve an average grade of 65 or more in the 6 best Software Engineering assignments
- attend a project week
- submit a dissertation that was approved as a topic in Software Engineering
- achieve a grade of 65 or more in the dissertation

To achieve a distinction for excellence in the MSc, it is normally sufficient to:

- attend modules and submit assignments in 10 different subjects, of which 6 or more need to be in Software Engineering (as defined by the degree schedule)
- achieve an average grade of 70 or more in those assignments

- achieve an average grade of 70 or more in the 6 best Software Engineering assignments
- attend a project week
- submit a dissertation that was approved as a topic in Software Engineering
- achieve a grade of 70 or more in the dissertation

For the Degree of MSc in Software and Systems Security:

To be awarded a pass in the MSc, it is normally sufficient to:

- attend modules and submit assignments in 10 different subjects, of which 6 or more need to be in Security (as defined by the degree schedule)
- achieve an average grade of 50 or more in those assignments
- achieve an average grade of 50 or more in the 6 best Security assignments
- attend a project week
- submit a dissertation that was approved as a topic in Security
- achieve a grade of 50 or more in the dissertation

To achieve a merit award in the MSc, it is normally sufficient to:

- attend modules and submit assignments in 10 different subjects, of which 6 or more need to be in Security (as defined by the degree schedule)
- achieve an average grade of 65 or more in those assignments
- achieve an average grade of 65 or more in the 6 best Security assignments
- attend a project week
- submit a dissertation that was approved as a topic in Security
- achieve a grade of 65 or more in the dissertation

To achieve a distinction for excellence in the MSc, it is normally sufficient to:

- attend modules and submit assignments in 10 different subjects, of which 6 or more need to be in Security (as defined by the degree schedule)
- achieve an average grade of 70 or more in those assignments
- achieve an average grade of 70 or more in the 6 best Security assignments
- attend a project week
- submit a dissertation that was approved as a topic in Security
- achieve a grade of 70 or more in the dissertation

Distinctions and Merits will only be considered at the first attempt. Should a student attend modules and submit assignments in more than 10 subjects, the Examiners will consider the 10 assignments that would best advantage the student in the examination. The average grade is rounded to the nearest integer.

A candidate who fails to satisfy the Examiners on the first occasion of their final examination, but would satisfy the Examiners in respect of another, lower qualification offered by the Programme, will be given a choice between failure (and possible re-examination), and the award of that other qualification.

If a candidate fails to satisfy the Examiners on the second occasion of their final examination, but would satisfy the Examiners in respect of another, lower qualification offered by the Programme, then they will be awarded that other qualification.

To be awarded a pass in a **Postgraduate Diploma**, it is normally sufficient to:

- attend modules in 8 different subjects
- achieve an average grade of 50 or more in written assignments for those modules

To be awarded a merit, it is normally sufficient to:

- attend modules in 8 different subjects
- achieve an average grade of 65 or more in written assignments for those modules

To achieve a distinction for excellence, it is normally sufficient to:

- attend modules in 8 different subjects
- achieve an average grade of 70 or more in written assignments for those modules

To be awarded a pass in a **Postgraduate Certificate**, it is normally sufficient to:

- attend modules in 4 different subjects
- achieve an average grade of 50 or more in written assignments for those modules

To be awarded a merit, it is normally sufficient to:

- attend modules in 4 different subjects
- achieve an average grade of 65 or more in written assignments for those modules

To achieve a distinction for excellence, it is normally sufficient to:

- attend modules in 4 different subjects
- achieve an average grade of 70 or more in written assignments for those modules

4 Use of vivas

The Examiners have the right to require any student to attend for an oral examination. A candidate who obtains the required passes in written assignments, and who achieves a pass in the project dissertation, is normally dispensed from attending a viva.

5. Failure and Resubmission

The examiners will decide on the final classification of a candidate's degree when the candidate has completed the taught component of the course and submitted their dissertation. If, at this point, a candidate has not fulfilled the requirements for written assignments stated above, they will be granted one more additional year of study, in which they may register for and attend additional modules in the usual way. They may also take assignments for scheduled modules in subjects for which they have previously attended a teaching week, even if they had previously taken an assignment in that subject. This additional period of study begins with the start of the next term following the publication of results; no extensions or intermissions to this period are permitted.

A student who has failed to satisfy the Examiners with regard to the project and dissertation may submit a fresh dissertation on one occasion only, not later than one year after the initial attempt.

If the subject of the dissertation has changed significantly from an original submission, then a fresh proposal will be required.

Any candidate who fails to satisfy the Examiners on the first occasion of their final examination will not be considered for a distinction or merit in the same award, should they be examined on a second occasion.

6. Mitigating circumstances notices to examiners

Where a candidate or candidates have made a submission, under Part 13 of the Regulations for Conduct of University Examinations, that unforeseen circumstances may have had an impact on their performance in an examination, a subset of the board (the 'Mitigating Circumstances Panel') will meet to discuss the individual applications and band the seriousness of each application on a scale of 1-3 with 1 indicating minor impact, 2 indicating moderate impact, and 3 indicating very serious impact. The Panel will evaluate, on the basis of the information provided to it, the relevance of the circumstances to examinations and assessment, and the strength of the evidence provided in support. Examiners will also note whether all or a subset of papers were affected, being aware that it is possible for circumstances to have different levels of impact on different papers. The banding information will be used at the final board of examiners meeting to decide whether and how to adjust a candidate's results. Further information on the procedure is provided in the *Policy and Guidance for examiners, Annex C* and information for students is provided at www.ox.ac.uk/students/academic/exams/guidance

7. Prizes to be considered by the examiners

Prize - Hoare Project Prize for MSc in Software Engineering and MSc in Software and Systems Security

Summary - The prize, value £200, may be awarded, if there is a candidate of sufficient merit, by the Examiners for the Degree of Master of Science in Software Engineering and Software and Systems Security each year to the candidate whose performance in the project they judge to be the best.

Prize - Hoare for the best overall Performance for MSc in Software Engineering and MSc in Software and Systems Security

Summary - The prize, value £200, may be awarded, if there is a candidate of sufficient merit, by the Examiners for the Degree of Master of Science in Software Engineering and Software and Systems Security each year to the candidate whose best overall performance in the project they judge to be the best.

8. Details of examiners and rules of communicating with examiners

Prof. Jeremy Gibbons (Chair)

Prof. Andrew Simpson

Prof. Andrew Markham

Prof. Max van Kleek

Dr. Christopher Hargreaves

Dr. Steffen Zschaler (External, MSc in Software Engineering)

Dr. Geraint Price (External, MSc in Software & Systems Security)

Candidates should not under any circumstances seek to make contact with individual internal or external examiners.