MSc in Computer Science - Examination Conventions 2013/14

The Supervisory Committee for the MSc in Computer Science directs that examinations for which it is responsible be conducted in accordance with these conventions[1]. Examiners are reminded that deviation from these conventions is permitted only after reference to the Supervisory Committee.

Candidates are required to

- submit coursework assignments/written examinations on a total of between 28 and 34 units of topics with no more than 12 units from Schedule A, and

- submit a project dissertation which must demonstrate an appreciation of the rôle of methods studied in the course, and

- attend an examination viva voce, unless individually dispensed.

To satisfy the Examiners a candidate must

- attain an average of ≥ 50 (pass) in assignments/written examination in their best 28 units of topics, and

- pass the project, and

- pursue an adequate course of practical work and achieve an overall pass in practicals (see Practicals Marking Scheme in the following).

The average mark is computed as follows:

Take the best k courses, ordered by USM, whose total number of units is ≥ 28. Let m_i be USM of the i-th best course. Let u_i be the number of units of the i-th best course for $i = 1, 2, \ldots, k-1$, and let $u_k = 28 - \sum_{i=1}^{k-1} u_i$. Then the average USM is given by $\sum_{i=1}^{k} (m_k \cdot u_k)/28$.

Any candidate who has not achieved an average of 50 in 24 units of topics by the beginning of Trinity Term shall be deemed to have failed the degree course and will not be permitted to submit a dissertation.

A candidate who fails the examination will be permitted to retake it on one further occasion only, not later than one year after the initial attempt. Such a candidate whose dissertation has been of satisfactory standard may resubmit the same piece of work, while a candidate who has reached a satisfactory standard on the assignments or written examinations will not be required to retake that part of the examination.

A candidate who has failed to reach a satisfactory standard in the dissertation will be permitted to resubmit a dissertation, not later than one year after the initial attempt. The resubmitted dissertation must be on the same topic as the original submission.

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[1]Nothing contained in this document supersedes the University's regulations and policy set out in the current *Examination Regulations* (pp. 698-699) and the documents *Notes for the Guidance of Examiners and Chairmen of Examiners* and *Notes of Guidance on Examinations and Assessment*

Assignments, written examinations and dissertations are allocated University Standardised Marks (USMs) out of 100 (see description in the following); 50 and above is a pass.

A candidate who obtains the required passes in assignments/written examinations, and who passes the project, is normally dispensed from attending a viva.

A candidate who achieves an Average USM of ≥ 70 in their best 28 units of courses and a USM of at least 70 in their dissertation will be awarded a Distinction. A Distinction may also be awarded to a candidate who achieves an Average USM for Taught Courses of at least 68 and USM for project dissertation of at least 80. Distinctions may be awarded only at the first attempt.

The USMs are calculated and scaled by the Examiners for each individual paper. The Examiners will make all such calculations using floating point numbers. The marks communicated to the students will be integers obtained by truncating each mark. The average mark will be calculated using the floating point marks in the mean formula, and will be rounded to the nearest integer.

Coursework Assignments

Anonymised assignments are marked by the course lecturer and moderated by the Examiners. Moderation is intended to ensure consistency and fairness across courses, and the moderators may adjust marks, or take any other necessary steps, to achieve this goal.

In order to ensure comparability of assessment marks across all courses, the Examiners may, from time to time, find it appropriate to systematically rescale[2] the marks for certain assignments. In making their decision they will:

- Consider the mean and standard deviations for each paper: a mean in the mid to high 60s, and a standard deviation of about 10 is normally expected;

- Compare the marks for each student on this paper with that student's average marks across all papers.

Examiners are obliged to ensure that any rescaling of assignment marks is fair to all students.

Where questions do not have a precise marking scheme, for example, essay-style questions, the students' answers should be independently double marked.

Every assignment will be checked to ensure that all parts have been seen by the Examiners, that all questions had been marked, and that the marks had been added and recorded correctly. After the recorded marks are transferred to the database system used for processing marks, a per-paper data-entry check will be performed.

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[2]They may perform an initial mechanical rescaling, but will then consider whether this obtains fair results. The suggested rescaling method is to use a piece-wise linear function, typically with control points corresponding to the top and bottom students, and USMs of 50 and 70.

Written Examinations

In 2013/14, the following courses will be examined by written examination at the following times:

Functional Programming	week 0	Hilary Term
Databases	week 0	Hilary Term
Object Oriented Programming	week 0	Hilary Term
Complexity	week 0	Trinity Term
Intelligent Systems	week 0	Trinity Term
Knowledge Representation & Reasoning	week 0	Trinity Term

For all exams, the Examiners base their assessment of the candidates' performance in the examination on a scaled mark out of 100 assigned for each paper; the scaling takes into account the likelihood that some papers in the examination are more difficult than others. The Examiners have the discretion of taking medical certificates or other evidence into account when arriving at standardised marks for each paper.

Every paper will be checked to ensure that all parts have been seen by the Examiners, that all questions had been marked, and that the marks had been added and recorded correctly. After the recorded marks are transferred to the database system used for processing marks, a per-paper data-entry check will be performed.

Project Dissertation

Each project dissertation will be read by at least two assessors, including at least one Examiner, but excluding the supervisor. Each assessor will write a brief report on the dissertation, including comments on context, contribution, competence, criticism and clarity. The assessors are asked to give a mark based on the above criteria. The final USM will usually be computed as an average.

Small differences in marks may be reconciled by discussion between the assessors. If there is a difference of more than ten marks, a third assessor may be asked to mark the project. A third reader may also be appointed if the project marks straddle either of the thresholds of 50 USMs and 70 USMs.

Examiners also receive a report from the project supervisor that is intended to provide them with information about the nature of the student's contribution to the project, the quality of any program that results from the project, and other factors that may not be apparent from the dissertation itself.

In coming to their judgement of the overall quality of a project and the final USM, Examiners may take into account all the above information and, if appropriate, moderate their marks.

Practicals

All marked practical work should be submitted to Wendy Adams by 12 noon on Monday of fifth week of Trinity Term.

Practicals Marking Scheme

The descriptions attached to each mark indicate the rough level of performance expected, but may be adjusted to take into account the degree of difficulty of the practical exercise.

S+ The student has either completed the compulsory parts of the exercise and submitted an exemplary report, or completed all parts of the exercise and submitted an adequate report.

S The student has completed the compulsory parts of the exercise and submitted an adequate report.

S− The student has completed only part of the exercise, or has submitted an inferior report.

The following percentages are allocated to the grades shown above

S+	100%
S	70%
S−	30%

Late Submission or Failure to Submit Coursework

Under the provisions permitted by the Regulations, late submission of coursework (i.e. practical and project reports) will normally result in the following penalties:

The Examiners may apply a penalty for late submission of practical work, miniprojects and project dissertations. Such a penalty will be applied, also taking into account any extenuating circumstances, using the following tariff as a guide:

Lateness	**Cumulative penalty**
Up to 4 hours	1%
4 to 24 hours	5%
24 to 48 hours	10%
48 to 72 hours	20%
72 to 96 hours	30%
96 to 120 hours	40%
120 to 144 hours	50%

Where permission for late submission has been granted by the Proctors (under clause (1) of para. 16.8, page 45), no penalty will be imposed.

Where permission for late submission has not been granted by the Proctors, but the Proctors have given leave for the candidate to remain in the exam (under clauses (3) and (4) of para. 16.8), the Examiners may impose a penalty not exceeding the credit available for that piece of work. The Examiners should take into account such factors as:

- the evidence forwarded to them by the Proctors and (insofar as the following matters are not dealt with by such evidence);

- the degree of advantage gained by the extra time made available to the candidate relative to the time that was available to complete coursework by the original deadline;

- the weight to be attached to the reason given, if any, for late submission.

Where the candidate is not permitted by the Proctors to remain in the examination he or she will be deemed to have failed the examination as a whole.

Vivas

The Examiners have the right to require any student to attend for an oral examination. The oral examination is usually intended for candidates who are borderline failure or borderline distinction on all aspects of the project.

Prizes

Three prizes, each of value £200, may be awarded:

- one for best overall performance in the examination,

- one for best project, and

- the Richard Bird Prize for the dissertation that best presents a piece of software, an algorithm, or a mathematical theory pertaining to program construction.

If dissertations of sufficient merit are not submitted, the award may be withheld.

Criteria for University Standardised Marks (USM*s*)

Distinction

90–100: The candidate shows remarkable ability and extraordinary insights. Dissertations in this band will be worthy of publication.

80–89: The candidate shows outstanding problem-solving skills and outstanding knowledge of the material over a wide range of topics, and is able to use that knowledge innovatively and/or in unfamiliar contexts.

70–79: The candidate shows excellent problem-solving skills and excellent knowledge of the material over a wide range of topics, and is able to use that knowledge innovatively and/or in unfamiliar contexts.

Pass

60–69: The candidate shows good or very good problem-solving skills, and good or very good knowledge of much of the material over a wide range of topics.

50–59: The candidate shows basic problem solving skills and adequate knowledge of most of the material.

Fail

40–49: The candidate shows reasonable understanding of at least part of the basic material and some problem solving skills. Although there may be a few good answers, the majority of answers will contain errors in calculations and/or show incomplete understanding of the topics.

30–39: The candidate shows some limited grasp of basic material over a restricted range of topics, but with large gaps in understanding. There need not be any good quality answers, but there will be indications of some competence.

0–29: The candidate shows inadequate grasp of the basic material. The work is likely to show major misunderstanding and confusion, and/or inaccurate calculations; the answers to most of the questions attempted are likely to be fragmentary only.