

# MSc in Computer Science - Examination Conventions 2007/08

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

Candidates are required to

- submit assignments on a total of between 28 and 32 units of topics with at least 16 units from Schedules B and C combined, and
- submit a dissertation which must demonstrate an appreciation of the role of methods studied in the course, and
- attend an examination viva voce, unless individually dispensed.

To satisfy the examiners a candidate must:

- attain a minimum standard (30 USMs) and above in assignments on at least 28 units of topics,
- pass assignments in at least 20 units of topics (including at least 12 units from Schedules B and C combined or alternative topics approved by the organising committee),
- pass the project,
- pursue an adequate course of practical work and achieve an overall pass in practicals,
- attain an adequate level of achievement in all three parts of the examination.

Assignments and dissertations are allocated University Standardised Marks (USMs) out of 100 (see description below). 50 and above is a pass.

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.

A candidate who obtains the required minimum standard and passes in assignments described above, and who passes the project, is normally dispensed from attending a viva.

Each project dissertation is read by at least two assessors, including at least one examiner, but excluding the supervisor. Each assessor writes a brief report on the dissertation, including comments on context, contribution, competence and clarity. Assessors suggest a mark, giving approximately 30% weight to each of contribution and competence, and approximately 20% weight to each of context and clarity, but do not necessarily give separate marks for these different components.

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 examiners may take this report into account.

Small differences in marks are reconciled by discussion between the two assessors. When there are differences of more than 10%, a third assessor is employed.

Examiners will receive a report from the project supervisor, which they should use as a "sanity check" on their marks; they should moderate their marks based on this, if appropriate.

In order to ensure comparability of assessment marks across all courses, the examiners may, from time to time, find it appropriate to systematically rescale the marks for certain assignments.<sup>1</sup> In making their decision they will:

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<sup>1</sup>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.

- Examine the proportion of students in each class with MPLS averages;
- 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.

A candidate who achieves an average USM of at least 70, and has satisfied the examiners as above, will be awarded a Distinction. Distinctions may be awarded only at the first attempt.

**The Average USMs should be calculated as follows.**

Arrange the student's courses in decreasing order of marks:  $c_1, \dots, c_n$ . Let the corresponding marks be  $m_1 \geq m_2 \geq \dots \geq m_n$ , and let the number of units for those courses be  $w_1, \dots, w_n$ , respectively. Let  $k$  be the minimum number such that  $\sum_{i=1}^k w_i \geq 28$ : courses  $c_{k+1}, \dots, c_n$  do not count towards the average USM; course  $c_k$  might receive less than a full weighting. The Average USM for taught courses is then calculated as

$$\left( \left( \sum_{i=1}^{k-1} m_i \times w_i \right) + \left( 28 - \sum_{i=1}^{k-1} w_i \right) \times m_k \right) / 28.$$

The average USM is then the arithmetic mean of the Average USM for taught courses and the USM for the dissertation.

**Criteria for University Standardised Marks (USMs)**

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.

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.

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.

### **Late submission or failure to submit coursework**

Under the provisions permitted by the 2007 regulation, late submission of coursework (i.e. practical and project reports) will normally result in the following penalties:

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 Proc-

tors, 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:

1. the evidence forwarded to them by the Proctors and (insofar as the following matters are not dealt with by such evidence);
2. the degree of advantage gained by the extra time made available to the candidate relative to the time that was available to complete course-work by the original deadline;
3. 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.

### **Prize**

A prize, value 200, may be awarded, if there is a candidate of sufficient merit, by the Examiners each year to the candidate whose performance in the examination they judge to be the best.

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<sup>2</sup>Nothing contained in this document supersedes the University's regulations and policy set out in the current Examination Regulations (pp.727-729) and the documents Notes for the Guidance of Examiners and Chairmen of Examiners and Notes of Guidance on Examinations and Assessment