



DEPARTMENT OF  
**COMPUTER  
SCIENCE**

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4<sup>th</sup> November 2014

**MSc in Computer Science**

**Michaelmas Term examination 2014**

**NOTICE TO CANDIDATES**

Sixteen courses are scheduled for examination at the end of Michaelmas Term, 2014. This notice gives information about what to hand in and when, advice on practical work, advice on how much time to spend on each assignment, and the sit down exam. Attached to this circular you will find details of University Standardised Marks (USMs) used to assess your examined work (Appendix A) and guidelines for assignments (Appendix B).

Please note that the Examination Conventions and Examination Regulations for the MSc in Computer Science 2014-15 are available online: <http://www.cs.ox.ac.uk/files/6849/conventions.pdf> and [http://www.admin.ox.ac.uk/examregs/17-40\\_SPECIAL\\_REGULATIONS.shtml#subtitle\\_19](http://www.admin.ox.ac.uk/examregs/17-40_SPECIAL_REGULATIONS.shtml#subtitle_19)

**1. Examination Entry Form**

Please note that you will be required to complete a formal examination entry form for your Michaelmas Term topics. You will receive this form in the next couple of weeks through your college, and will be required to return it to the Exam Schools by 12 noon on Friday of week 8. Please visit the Examination Entry website for further information: <http://www.ox.ac.uk/students/academic/exams/entry>.

**2. Written Examination**

**Date and Papers**

The following courses will be examined by a sit down exam which will take place early in week 0 of Hilary Term (dates of term can be viewed here: <http://www.ox.ac.uk/about/facts-and-figures/dates-of-term>), the actual day and time to be determined:

- Functional Programming
- Object Oriented Programming
- Databases
- Probability & Computing

Exams will take place at the Examination Schools, High Street, Oxford and you will have three hours to complete each exam.

Please note that previous years papers can be viewed here:  
<https://www.cs.ox.ac.uk/teaching/internal/papers/MSCinCS/2014/>

### Subfusc

You will be required to wear academic dress with subfusc clothing at these exams, which comprises of the following:

- A dark suit with dark socks, or a dark skirt with black stockings or trousers with dark socks and an optional dark coat; black shoes; plain white collared shirt; a black tie or white bow tie (please see: <http://www.admin.ox.ac.uk/statutes/regulations/48-012.shtml>).

### 3. Submitted Assignment(s)

#### Collection Date

The assignments for each course may be collected from Sarah Retz in **room 105** of the Department of Computer Science **after 12 noon** on the date show:

#### **Monday of week 8, Michaelmas Term (1<sup>st</sup> December):**

- Foundations of Computer Science
- Computational Learning Theory
- Computer Aided Formal Verification
- Automata Logic & Games
- Categories Proofs & Processes
- Quantum Computer Science

#### **Friday of week 8, Michaelmas Term (5<sup>th</sup> December):**

- Computers in Society
- Computer Security
- Principles of Programming Languages
- Computer Animation
- Concurrent Algorithms and Data Structures
- Probabilistic Model Checking

#### Submitting an Assignment

The assignment must be submitted in an envelope clearly marked with your candidate number to the Chairman of Examiners via Examination Schools, 75-81, High Street, Oxford, by 12.00 noon on the submission date detailed below. **Unless the answers are delivered by hand, students are advised to use registered post or a courier delivery service. Please ensure that you receive documentation from the courier service ensuring delivery on the above date. It is your responsibility to make sure that your assignments are submitted on the deadline stipulated.**

Each assignment must be accompanied by a declaration form (to be found in each envelope containing an assignment) stating that it is entirely your own work (except where otherwise indicated). **Please place each assignment in the appropriate envelope (enclosed), ensuring that the scripts are firmly tied or stapled, but in a manner that allows the script to be read without detachment.**

Please note that your candidate number should be the only means of identification of your work. **DO NOT** include your name or OSS student number. You can obtain your candidate number through student self-service (for guidance on using the student self-service, please visit: <http://www.ox.ac.uk/students/selfservice/>). Should you encounter any problems doing this then please contact Sarah Retz ([sarah.retz@cs.ox.ac.uk](mailto:sarah.retz@cs.ox.ac.uk)).

## Submission Date

**Submission Date: 12.00 noon, Monday 5<sup>th</sup> January 2015**

### **Schedule A**

Foundations of Computer Science

### **Schedule B**

Computational Learning Theory  
Computers in Society  
Computer Aided Formal Verification  
Computer Security  
Principles of Programming Languages

### **Schedule C**

Automata Logic & Games  
Categories Proofs & Processes  
Computer Animation  
Concurrent Algorithms and Data Structures  
Probabilistic Model Checking  
Quantum Computer Science

## Guidelines for assignments

Please refer to Appendix B.

#### 4. **Practicals**

You will be required to submit your practical work for all your courses in one bundle in Trinity Term. Details will follow in Hilary Term of the submission date and time.

Please do not submit the practical work from your Michaelmas Term courses with your assignments, but please do keep the work in a safe place until required for submission.

#### 5. **Problems**

Students **MUST NOT** contact any member of the Examination Board, their supervisor, or Lecturer in charge of the course with any queries about the take-home assignment or examination in general. Please address any such queries to Sarah Retz ([sarah.retz@cs.ox.ac.uk](mailto:sarah.retz@cs.ox.ac.uk)), who will advise you of the next steps. You must do so no later than **12 noon on Monday 15th December 2014**.

If other problems arise (e.g. personal issues, health issues, bereavement) please consult your supervisor (or the Director of the MSc course) in the first instance. It is possible to apply for an extension of time to complete your assignments due to reasons like the ones listed above. In such cases, you must apply via your College as soon as possible, and please also inform Sarah Retz that you are doing so. Your College will then write to the Proctors to request an extension. Please note that evidence will be required.

Supervisors will not be able to help you answer the assignments, but they may be able to help you with your reading and planning. If you need to contact your supervisor but have difficulty doing so, you should contact Sarah Retz.

#### 6. **Results**

It is anticipated that results will be available sometime after **Wednesday 28<sup>th</sup> January 2015**. You will be able to view your results by logging on to OSS, using your single sign-on.

## 7. Examination Board

Prof. Paul Goldberg (Chair of Examiners)

Dr Edith Elkind

Prof. Elias Koutsoupias

Prof. Tom Melham

Dr Hanno Nickau

Prof. Howard Barringer, The University of Manchester (External Examiner)

Prof. Paul Goldberg  
Chairman of Examiners  
MSc in Computer Science

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Copy: Supervisors

## **Appendix A**

### Qualitative Descriptors MSc in Computer Science

Assignments and dissertations are allocated University Standardised Marks (USMs) out of 100 (see description below). A candidate who achieves an average USM of at least 70 will be awarded a Distinction. 50 and above is a pass.

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

90-100: The candidate shows remarkable ability and true 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.

## Appendix B

### Guidelines for assignments

An assignment will normally take the form of a tutorial sheet containing several questions on the course, and will contain bookwork questions and new exercises. While you are free to work until the hand-in date, the expectation is that you will spend around 3/4 days per assignment for topics under Schedules A and B, and around 4/5 days per assignment for topics under Schedule C, including preparatory reading.

1. Although the assignments may be carried out while you are resident in Oxford, some may be prepared over the Vacation period. Students who wish to complete their assignments away from Oxford should make sure that they have access to a computer.
2. Your answer to an assignment should not normally exceed 20 pages, (10 pages would be more typical). Write on one side of the paper only, and use standard A4. Write legibly and allow time to polish answers. Illegible and poorly laid out answers will be penalised more severely than in a standard 3-hour written exam. Typewritten or word-processed answers are acceptable, provided the mathematical notation is clear, but do not spend excessive time in presenting your answers in Word format or in LaTeX-ing your answers (unless you are accomplished at this).
3. You should aim to do significantly more than half of each assignment. If you complete less than half of an assignment, you should still hand it in. Even if you fail in that subject, the work will earn you credit in the overall assessment. Furthermore, your work may suggest remedial action to your supervisor.
4. If prior to submitting your exam entry form you think you will have trouble with completing all the assignments, consider dropping one of them altogether; discuss this with your supervisor. If you do decide to drop one assignment you must make sure you advise Sarah Retz and the tutor of the relevant class. **However, you cannot withdraw once you have submitted the exam entry form.** If you fail to submit an assignment for one of the topics listed on your Exam entry form, the Examination Schools will notify the Proctors that you have failed to submit an assignment. As a result, the Proctors may deem you to have failed the entire course.
5. When submitting your assignments you will have to complete a Declaration Form attesting that they are your own work, except where indicated. Failure to correctly acknowledge your sources is plagiarism, which is treated as a very serious disciplinary offence. The consequences of copying can never be remedied. Please consult (a) the University web site regarding plagiarism (<http://www.ox.ac.uk/students/academic/guidance/skills/plagiarism>), (b) your supervisor if you are worried about possible suspicion of irregularity in examination procedures, and (c) consult the detailed guidance on plagiarism under Appendix J in the MSc Computer Science Handbook.

**YOU SHOULD NOT** show your assignment to, or discuss it with, any other student. **YOU SHOULD NOT** ask or seek to look at anybody else's work.

If you use material from any other source such as textbooks, lecture notes or the web, then you should reference it explicitly at the relevant point. Your supervisor can give you guidance on proper referencing, or for more guidance see <http://www.ox.ac.uk/students/academic/guidance/skills> and <http://www.cs.ox.ac.uk/files/3161/Referencing.pdf>

You will not receive any credit for simply copying information verbatim because that displays very little understanding. The assessors will be more impressed if you synthesise information from a number of sources (properly cited, of course), and combine it with your own ideas.

6. Please remember that you need to obtain an overall pass in your practicals to be able to pass the MSc in Computer Science. See the Course Handbook for details.