

Head of Department: Professor M Wooldridge Direct Line Tel: +44 (0)1865 210812

Email: mjw@cs.ox.ac.uk

Departmental Administrator: Sharon Lloyd Direct Line Tel: +44 (0)1865 283668 Email: sharon.lloyd@cs.ox.ac.uk MSc Course Administrator: Sarah Retz

Direct Line Tel: +44 (0)1865 283559
Email: sarah.retz@cs.ox.ac.uk

17th August 2015

MSc in Computer Science

Trinity Term examination 2015

NOTICE TO CANDIDATES: DISSERTATION GUIDELINES

This notice gives information about what to hand in and when. Attached to this circular you will find details of University Standardised Marks (USMs) used to assess your examined work (Appendix A), advice and guidance on MSc Projects (Appendix B), information on plagiarism (Appendix C), the declaration form (Appendix D), Turnitin information (Appendix E) and the leaving form (Appendix F).

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.cs.ox.ac.uk/files/6849/conventions.pdf and http://www.cs.ox.ac.uk/files/6849/conventions.pdf and http://www.cs.ox.ac.uk/examregs/2014-15/mosbcincompscie/studentview/

1. Submitting your dissertation

Submission instruction

Two typewritten or printed copies of the Dissertation must be handed in by 12.00 noon on Tuesday 1st September 2015 in an envelope clearly marked with your candidate number to the Chairman of Examiners via Examination Schools, 75-81, High Street, Oxford, OX1 4BG by 12.00 noon on the submission date detailed above. **Unless the dissertations 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 dissertations are submitted on the deadline stipulated. Please note that Examination Schools will be closed on Monday 31st August 2015, and so will not be receiving deliveries on this date.

The dissertation must be accompanied by a declaration form (see Appendix D) stating that it is entirely your own work (except where otherwise indicated).

Please note that **candidates should include their name**, but <u>not</u> their candidate number, on their dissertation.

Submission Date

Submission Date: 12.00 noon, Tuesday 1st September 2015

Advice and guidance on MSc Projects

Please refer to Appendix B.

2. Problems

Students **MUST NOT** contact any member of the Examination Board with any queries about the examination in general. Please address any such queries to Sarah Retz (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 24**th **August 2015**.

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 dissertation 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.

3. Results

It is anticipated that results will be available sometime after **Friday 2nd October 2015**. You will be able to view your results by logging on to Student Self Service, using your single signon.

4. 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

Appendix A

<u>Qualitative Descriptors</u> <u>MSc in Computer Science</u>

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 under-standing 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

Important Deadlines

- Tuesday 1st September, 2015, noon: submission date for the dissertation.
- Thursday 1st October, 2015: viva voce examination date.

Available Projects and Registration Details

Available projects can be found here:

http://www.cs.ox.ac.uk/teaching/studentprojects/MSCinCS.html

You should submit the registration form with either a single project title, together with a signature of the supervisor, or a list of at least three projects for which you have (or are doing) the stated prerequisites. We would encourage you to talk to potential supervisors and select a specific project if possible. However, if you are not able to do this, then the Projects Committee will endeavour to find a suitable person to supervise one of the projects you have listed. If you do supply a list projects you are interested in, then please make sure that they are selected from at least two different possible supervisors.

Although some students do projects that are jointly supervised with another department or industry you should remember that the project has to be relevant to computer science and should demonstrate your understanding and ability to exploit and integrate the material you have learnt from the courses you have taken.

Please note the regulations stipulate that you must demonstrate a link between your project and the taught part of the course.

In making your choice of project, you may wish to look at previous projects held in the Library.

Below are some that were awarded a distinction in the MSc in Computer Science.

- Sparsh Gupta Web Content Recommendation Using Machine Learning on User Mouse Tracking Data - (2009)
- Muneeb Ali Forecasting UK Housing Market Using Artificial Neural Networks (2009)
- Edward Grefenstette Analysis Document Similarity Measures (2009)
- Rachel Bailey A Comparative Study of Algorithms for Solving Bischi Games (2010)
- Theordore Bluche Mathematical Formula Recognition Using Machine Learning techniques (2010)
- Stuart Bowyer Segmentation and Classification of Magnetic Resonance Images (2010)
- Nurzhan Bakibayev Query Evaluation on Factorised Representations (2011)
- Di Chen Complexity of Metric Bisimilarity for Markov Chains (2011)
- Ian Childs Deductive theorem Prover Based on GADTs (2011)
- Constantin Daniil OX Alert (2012)
- Vladimir Zamdzhiev A Categorical Approach to Quantum Secret Sharing (2012)
- Julie Makelberge Initial Investigations in Multitask Learning Applied to Steganalysis (2012)
- Nathan Hale Network-based Content Recommendation for Social Interaction (2012)
- Laura Draghici Updates in Factorised Databases (2013)
- Liyuan Lu reCon: Web Document Analysis and Reconstruction (2013)
- Michael McLeod Reasoning about Multi-stage Programming (2013)
- Stefa Saftescu Visualising CSP Compressions (2013)

Please make sure that you also read the section in the MSc Course Handbook on dissertations.

Project proposals fall into two categories: there are specific proposals put forward by members of the department which can be discussed with the academic concerned, and some members of the department have put forward general areas in which they would be prepared to supervise projects.

If you have a project of your own in mind you can discuss it with the academic whose interests fall into this area.

You should note that it is a requirement of the MSc in Computer Science that you must demonstrate a link between your project and the taught part of the course.

Guidance on Presentation

The following guidelines have been produced for MSc in Computer Science students to refer to when completing their dissertation. Please note that the University's Examination Regulations govern the preparation and presentation of a research thesis (currently under section 13.6), and it is these guidelines that should be followed. Please consult the latest edition of the Examination Regulations when reading this document, and before you start to type up your dissertation.

Should any of the information be unclear, please contact Sarah Retz (sarah.retz@cs.ox.ac.uk) for advice in advance of the submission deadline, and certainly before the dissertation is bound.

General

- Two typewritten or printed copies must be submitted, this can include LaTeX, which is the best choice if your dissertation involves a significant amount of mathematical notation.
- The paper size must be A4 (210 x 297mm).
- Both copies should be securely bound with a cover that displays the title page. Both combbinding and thermal binding are sufficient, and there is a comb-binding facility at the reception of the Wolfson Building.

Formatting

- Size 11 or 12 font must be used.
- Single spacing should be used for the main text, quotations and footnotes.
- The margins of the page must not be less than 1.5cm, apart from the binding edge where the margin must not be between 3-3.5cm.
- Pages of the dissertation must be numbered throughout except for the title page.
- The dissertation can be printed single or double sided.

Title Page

- The full title of the dissertation.
- The term and year of submission.
- The candidates name.
- The title of the degree the dissertation is being submitted under.

Contents

You should include a contents page.

Abstract

- It is strongly recommended that a short abstract (of less than one page) be included at the beginning of the dissertation, separate from the Introduction.

Submitting programs on a disc

 Occasionally people like to include their working program on a disc, inside the front cover of the dissertation. This is acceptable, but you should not assume that the examiners will have an opportunity to run it, and the rest of your dissertation should be complete in itself.

Training Session

In Trinity Term there will be a session on presentation skills which will cover both writing skills and verbal presentations. All students are expected to attend as this will provide you with useful background for your dissertation.

Appendix C

Plagiarism

The University's code of conduct concerning academic integrity is set out on the website at:

http://www.admin.ox.ac.uk/personnel/cops/researchintegrity/

The following information and advice is of relevance and use to graduate students, particularly those with limited experience of academic writing. It is expected that most graduates will have mastered the rules and conventions of scholarly writing before arriving at Oxford, and therefore plagiarism is treated as a serious breach of academic integrity. However, even graduate students sometimes find it difficult to avoid unintentional plagiarism; consequently you must ensure that you understand fully what is meant by the term "plagiarism", how to avoid it in your writing and the potential consequences of either deliberate or inadvertent plagiarism.

All graduate students must complete the University's online plagiarism courses as part of their graduate skills training portfolio:

https://weblearn.ox.ac.uk/access/content/group/e34f4cf9-1ecb-4244-a62b-ba3e96472790/SkTK WebPages/Tool Ep Plagiarism.html

https://weblearn.ox.ac.uk/access/content/group/e34f4cf9-1ecb-4244-a62b-ba3e96472790/SkTK WebPages/Tool Ep Plagiarism2.html

At the end of the course there is a quiz to test your knowledge; if successful you can print out a certificate for your records. The course also provides an accessible source of information and advice about plagiarism. You should use it in conjunction with the advice on these pages.

What is plagiarism?

Plagiarism is the copying or paraphrasing of other people's work or ideas into your own work without full acknowledgement. All published and unpublished material, whether in manuscript, printed or electronic form, is covered under this definition.

Collusion is another form of plagiarism involving the unauthorised collaboration of students (or others) in a piece of work.

Cases of suspected plagiarism in assessed work are investigated under the disciplinary regulations concerning conduct in examinations. Intentional or reckless plagiarism may incur severe penalties, including failure of your degree or expulsion from the university.

What forms can plagiarism take?

Verbatim quotation of other people's intellectual work without clear acknowledgement. Quotations must always be identified as such by the use of either quotation marks or indentation, with adequate citation. It must always be apparent to the reader which parts are your own independent work and where you have drawn on someone else's ideas and language.

Paraphrasing the work of others by altering a few words and changing their order, or by closely following the structure of their argument, is plagiarism because you are deriving your words and ideas from their work without giving due acknowledgement. Even if you include a reference to the original author in your own text you are still creating a misleading impression that the paraphrased wording is entirely your own. It is better to write a brief summary of the author's overall argument in your own words than to paraphrase particular sections of his or her writing. This will ensure you have a genuine grasp of the argument and will avoid the difficulty of paraphrasing without plagiarising. You must also properly attribute all material you derive from lectures.

Cutting and pasting from the Internet. Information derived from the Internet must be adequately referenced and included in the bibliography. It is important to evaluate carefully all material found on

the Internet, as it is less likely to have been through the same process of scholarly peer review as published sources. For guidance on how to use the Internet appropriately in your scholarly work, try the `Internet Detective' online tutorial: http://www.vts.intute.ac.uk/detective/

Collusion. This can involve unauthorised collaboration between students, failure to attribute assistance received, or failure to follow precisely regulations on group work projects. It is your responsibility to ensure that you are entirely clear about the extent of collaboration permitted, and which parts of the work must be your own.

Inaccurate citation. It is important to cite correctly, according to the conventions of your discipline. Additionally, you should not include anything in a footnote or bibliography that you have not actually consulted. If you cannot gain access to a primary source you must make it clear in your citation that your knowledge of the work has been derived from a secondary text (e.g. Bradshaw, D. Title of Book, discussed in Wilson, E., Title of Book (London, 2004), p. 189). For more guidance on how to reference correctly, see http://library.leeds.ac.uk/info/200232/referencing.

Failure to acknowledge. You must clearly acknowledge all assistance which has contributed to the production of your work, such as advice from fellow students, laboratory technicians, and other external sources. This need not apply to the assistance provided by your tutor or supervisor, nor to ordinary proofreading, but it is necessary to acknowledge other guidance which leads to substantive changes of content or approach.

Professional agencies. You should neither make use of professional agencies in the production of your work nor submit material which has been written for you. It is vital to your intellectual training and development that you should undertake the research process unaided.

Autoplagiarism. You must not submit work for assessment which you have already submitted (partially or in full) to fulfil the requirements of another degree course or examination.

The necessity to reference applies not only to text, but also to other media, such as computer code, illustrations, graphs etc. It applies equally to published text drawn from books and journals, and to unpublished text, whether from lecture hand-outs, thesis or other students' essays. You must also attribute text or other resources downloaded from web sites.

Why should you avoid plagiarism?

Graduate students' work is expected to meet high academic standards and will be scrutinised carefully. The University must ensure that these standards are upheld and that its research degrees provide proper training for an academic career. In addition, the academic community has to be satisfied that those who obtain the D.Phil. are appropriately qualified to undertake further unsupervised research. Plagiarism at this level is a serious breach of academic integrity and the consequences can be severe. In some cases a student may be expelled, or they may be stripped of their degree if their thesis is later discovered to contain plagiarised material. Some academics' careers have been ruined by the discovery of plagiarism in decades-old published work.

Far from being simply a disciplinary matter, plagiarism undermines the central tenets of scholarly discourse. Knowledge develops via a cumulative process as a result of years of research, innovation and debate. It is a principle of intellectual honesty that all members of the academic community should acknowledge their debt to the originators of the ideas, words, and data which form the basis for their own work. It is important to recognise that academic texts are multi-voiced, constructed from references to other texts; it is your responsibility as a writer to make it clear at all times whose 'voice' is speaking, whether your own or one of your sources'. This requirement for transparency of source use means that you must cite adequately, make it clear when you are quoting or paraphrasing, and establish the relationship between your source and your own text.

Citation

Giving credit to the authors of the ideas and interpretations you cite not only accords recognition to their labours, but also provides a solid theoretical basis for your own argument. Your ideas will gain credence if they are supported by the work of respected writers. Transparent source use allows you

to situate your work within the debates in your field, and to demonstrate the ways in which your work is original. It also gives your reader the opportunity to pursue a topic further, or to check the validity of your interpretations.

When writing you should consider the ways in which your work depends upon or develops from other research, then signal this with appropriate citation. Make clear your reasons for citing a source. When paraphrasing an idea or interpretation you must ensure that your writing is not too closely derived from the original, and you must also acknowledge the original author.

You will be provided with a guide to the referencing conventions in your discipline, and may wish to employ software which keeps track of your sources and automatically formats the footnotes and bibliography (i.e. EndNote, Reference Manager, ProCite). It is important to be meticulous when taking notes: include full citation details for all the sources you consult and remember to record relevant page numbers. It is far too time-consuming to go back to your books to find page numbers or citation details later. Citation practice varies but, depending on the type of text cited (book, chapter in an edited volume, conference paper, journal article, e-print, etc.), the elements of a reference include: author; title of the book or article; title of the journal or other work; name of the conference; place of publication; date of publication; page numbers; URL; date accessed. The conventions for citing web resources vary between disciplines. You should note as many essential items of information as possible, such as author, title, publisher, dates of publication and last revision, URL, and date of last access. When using e-print archives you should bear in mind that many contain articles which have not yet been submitted for peer review. It is good practice to review the later, published versions for important changes before submitting your dissertation.

Patchwriting

Inexperienced writers, particularly those who are not native speakers of English, often develop their writing technique via a process known as "patchwriting". If they lack the requisite skills of academic writing or self-expression, they may copy or heavily paraphrase their source material. Where the derivation is not made clear, this is plagiarism. However, it is recognised that many honest students employ mimicry and borrowed language as they learn to write in the academic style, and that patchwriting can be seen as a developmental stage. As students gain more experience at writing they must develop an independent voice and cease to rely on imitation. If work containing unattributed paraphrase is submitted for assessment, it will be treated as plagiarism regardless of the author's intentions.

Language skills

Graduate students who are non-native speakers of English are entitled to take two free courses in English for Academic Studies at the University Language Centre at 12 Woodstock Road. These include a three-term Academic Writing Course, individual writing tutorials, advanced English language teaching, and modules on specific topics, such as pronunciation. Demand for places on these courses often outstrips supply so you should ensure that you book early by going to the Language Centre in person to register. There are also fee-paying courses available, including the intensive Pre-Sessional Course in English for Academic Purposes. This is either a four or eight week course taken during the period from the end of July to late September. It is open to students embarking on study at any English-speaking university, but students coming to Oxford will usually be accommodated by their colleges. Intensive one-week courses in Academic Writing are offered in the ninth or 0th week of some terms, which may be of use to those under severe time pressures. There are also ample resources for independent study in the Language Centre library, and a wealth of online English teaching tools.

Cultural differences

Students who experience difficulties adapting to the culture of academic study at Oxford should not delay in seeking out sources of support and guidance. If you are not a native English speaker, you should take full advantage of the resources at the Language Centre. Do not hesitate to approach your course director or supervisor to discuss your needs. Develop your academic writing skills through practice and ask for detailed feedback on your work. Ensure that you follow scrupulously the source use and referencing conventions of your discipline, even if they vary from those you have used

before. You should take the online plagiarism course as early as possible to ensure that you understand the issues involved. This web site and the sites it links to will also provide useful resources. If you have specific difficulties or questions, you should always ask for advice.

Disciplinary process

Plagiarism in the work you submit for assessment is considered to be a breach of the disciplinary regulations regarding conduct in examinations. Full details of the disciplinary process are available elsewhere on this web site.

A last word

Not only is plagiarism unethical, it also seriously undermines the value of your research and of any degree you may obtain. By extension, it devalues the work of your colleagues and the standards of your institution. It can also have far-reaching consequences, the effects of which may be felt many years hence.

However, you should not avoid plagiarism for fear of disciplinary consequences, but because you aspire to produce work of the highest quality. Once you have grasped the principles of source use and citation, you should find it relatively straightforward to steer clear of plagiarism. Moreover, you will reap the additional benefits of improvements to both the lucidity and quality of your writing. It is important to appreciate that mastery of the techniques of academic writing is not merely a practical skill, but one that lends both credibility and authority to your work, and demonstrates your commitment to the principle of intellectual honesty in scholarship.

A guide to citing and referencing for students

This can be found at:

http://www.cs.ox.ac.uk/files/3161/Referencing.pdf

Appendix D

MSc in COMPUTER SCIENCE DECLARATION OF AUTHORSHIP - DISSERTATION

This declaration should be completed and submitted to the Examination Schools with **two typewritten or printed copies of your dissertation** by noon on **Tuesday 1**st **September 2015**.

Name (in capitals):	Candidate number:	
College (in capitals):	Supervisor(s)/Co-Supervisor(s):	
Title of dissertation (in capitals):		
Word count:		
Please tick to confirm the following:		
I am aware of the University's disciplinary regulation particular, of the regulations on plagiarism.	ns concerning conduct in examinations and, in	
The dissertation I am submitting is entirely my own	work except where otherwise indicated.	
It has not been submitted, either wholly or substantia University, or for a degree at any other institution.	ally, for another Honour School or degree of this	
I have clearly signalled the presence of quoted or parthe relevant point.	caphrased material and referenced all sources at	
I have acknowledged appropriately any assistance I l [supervisor/adviser].	nave received in addition to that provided by my	
I have not sought assistance from any professional ag	gency.	
The dissertation does not exceed 30,000 words in ler tables, listing, etc.	ngth, plus not more than 30 pages of diagrams,	
I have submitted, or will submit by the deadline, and have read the notice concerning the use of Turnitin in Assessor's Memorandum) at	n the Student Handbook (Proctors' and	
http://www.admin.ox.ac.uk/proctors/info/pam/, and of described there. I confirm that the electronic copy is	•	
I agree to also retain an electronic version of the wor Chair of Examiners should this be required in order t plagiarism.		
Candidate's signature:	Date:	
•••••		

Appendix E

From: Sarah Retz

Sent: 10 August 2015 13:26

To: 'msc-cs-students@cs.ox.ac.uk'

Subject: MSc Projects: Turnitin *please read*

Dear All,

As detailed in previous correspondence, the Examiners intend to use the Turnitin system (http://www.turnitinuk.com/en_gb/) to screen MSc projects for evidence of plagiarism. For this it will be necessary for you to upload the electronic version of your project to Turnitin.

I will be enrolling you all onto the 'MSc Computer Science: Project' class shortly. For those that already have a TurnitinUK user profile, you will be notified and enrolled onto this class. If you do not have a profile, Turnitin will create one for you and send an email notification with a temporary password. Please note that I will be using your oxford email addresses.

Important

- 1. Deadline: 12 noon of Tuesday of week minus 5 of Michaelmas Term (1st September 2015).
- 2. Two typewritten or printed copies are required.
- 3. An electronic copy of the project submitted to the Exam Schools must also be uploaded to Turnitin by 12 noon of Tuesday of week minus 5 of Michaelmas Term (1st September 2015).
- 4. An electronic copy of the project submitted to the Exam Schools must also be emailed to Sarah Retz sarah.retz@cs.ox.ac.uk 12 noon of Tuesday of week minus 5 of Michaelmas Term (1st September 2015).

Please let me know if you encounter any problems.

I will send out reminders closer to the submission deadline.

Best wishes, Sarah

Sarah Retz
MSc Course Administrator
Department of Computer Science
Room 112, Wolfson Building, Parks Road, Oxford OX1 3QD

Email: sarah.retz@cs.ox.ac.uk

Tel: 01865 (2)83559

Appendix F

DEPARTMENT OF COMPUTER SCIENCE LEAVING FORM

Please complete and return	this form with your dissertation.	ALL sections must be completed
Name:		
College:		
Leaving Date:		
Forwarding Address:		
Email Address:		
New Employer:		
Address:		
Type of Business:		
If Further Education, please	state University and Title of Cou	ırse:
Start Date of New Employer		
These sections need only be	completed by Students	
Dissertation/Thesis Title:		
Date of Submission:		
Supervisor:		
PLEASE REMEMBER TO:	Return all library books Return your Radcliffe Science	Library Photocopying Card

13