M.Sc. in Computer Science

Course Handbook

2012-2013

DEPARTMENT OF
COMPUTER
SCIENCE

Contents

1. Preface

Welcome to the Department of Computer Science.

This Course Handbook is designed for MSc in Computer Science students. It also contains general information about the Department, people, facilities and safety. *Please pay particular attention to the safety pages*.

The information here is designed to be general and relevant throughout your time at Oxford; further information on courses, practicals and projects will be given to you and/or made available on our web pages at appropriate times. Whilst we have tried to make information about examinations as accurate as possible, the final authority on examinations and other academic regulations is *University of Oxford Examination Regulations* (the "grey book"),

see http://www.admin.ox.ac.uk/examregs/Computer_Science.shtml

Comments on the contents of this handbook would be much appreciated, so please do not hesitate to send a note to any of us if you can think of ways to improve the next issue.

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2. Introduction

Welcome! You have chosen to study at one of the world's leading centres for the development, application and teaching of computer science. You join a rapidly expanding group of researchers, lecturers, visitors and students who have been attracted to Oxford from all over the world.

The Department of Computer Science's reputation ranges from its fundamental research into computing methods and languages through to practical solution of engineering and scientific problems on the latest highly parallel computer architectures. Our wide-ranging collaborative work with leading industries in this country has been twice recognised by the rare honour of a Queen's Award for Technological Achievement.

During your study at Oxford, we hope to share with you some of the understanding which we have gained, both by our research into basic theory and by industrial collaboration. We hope too that you will be able to share with us - and with each other - our enthusiasm for the subject, and will enjoy developing your talents in this field. The development of computing at Oxford has been heavily supported by donations and sponsorship from our industrial partners. We have devoted our best efforts to the design of the courses you will take and to the perfection of our lecturing and teaching skills; when you leave, we are confident that you will have a sound basis for a productive and rewarding career.

This handbook aims to save time by giving you a certain amount of basic information which you would otherwise have to ask for or learn by experience, but it cannot tell you all you need to know. Do not be afraid to ask for further information or advice.

2.1 The Department of Computer Science, the University, the Division and the Colleges

The University of Oxford is organised both by department and by college.

The colleges are the oldest components of the University, some dating back to the twelfth century. Traditionally, the admission of students to Oxford and their academic and personal well-being is the concern of individual colleges. In arts subjects much of the teaching is organised on college premises and there is little need for divisional buildings or departments. For science subjects on the other hand, expensive equipment is needed and the University has the responsibility for providing common facilities for use by all students, particularly at the graduate level, just as it has always organised central examinations on their behalf. Thus the Department of Computer Science, like other Oxford science departments, is run by the University to provide central teaching and research facilities for members of all colleges.

The departments are grouped into divisions, which have responsibility for resource allocation, for academic policy, examinations, lectures and graduate admissions within a group of related departments. The Department of Computer Science belongs to the Mathematical, Physical and Life Sciences Division.

Your college has allocated someone as your college advisor: this person should be your primary source of advice about college matters. Your college advisor may be a computer scientist, a mathematician or an engineer and should meet you each term to hear about your progress. Information gained from a personal contact is far better than any handout from an impersonal and central organisation, and it is to your college that you should, in the first instance, direct any queries or difficulties of a non-technical nature.

Most Tutorial Fellows of the colleges are also employed by the University as lecturers. Consequently our relationship with the colleges is a very close one and you may well meet your college advisor giving lectures or organising classes in the Department of Computer Science.

2.2 Terminology

Matriculation. Matriculation is the formal University admission procedure and is organised by your college.

University Terms. The three University "full" terms, called *Michaelmas* (October - December), *Hilary* (January - March) and *Trinity* (April - June) last eight weeks each. But terms simply set the periods during which formal instruction is given by way of lectures, seminars and tutorials. The University functions throughout the year and you will need to work outside term time as well as in term (apart from reasonable breaks).

Subfusc. The University Examination Regulations state that all members of the University are required to wear academic dress with *subfusc* clothing when attending formal university events such as matriculation and university examinations. It consists of:

- *For women* – A dark skirt or trousers, a white blouse, black tie, black stockings and shoes, and, if desired, a dark coat

- *For men* – A dark suit and socks, black shoes, a white bow tie and plain white shirt and collar

Candidates serving in HM Forces are permitted to wear uniform together with a gown. (The uniform cap is worn in the street and carried when indoors.)

3 The Supervisor

You will be allocated an academic supervisor and an advisor both of whom are usually members of the academic staff in the Department of Computer Science. During term you are expected to remain in close contact with your supervisor. You should meet with your supervisor for at least half an hour once a fortnight. Guidelines for both student and supervisor can be found in Appendix K.

The following is an extract from the Graduate Studies Prospectus:

> Whether you are taking a taught course, diploma or studying for a research degree, your academic supervisor will meet regularly with you to provide guidance and advice throughout your programme. A high degree of self-motivation is essential. Your supervisor will help you to construct a programme that allows you to optimise the benefits from the intellectual resources available but students should be prepared that the level of detailed teaching may be considerably less than they have experienced an undergraduate or graduate courses taught elsewhere.
>
> Each term your supervisor will prepare a report on your progress and a copy will be sent directly to you and to your college.
>
> Oxford's approach to graduate study reflects on emphasis on the individual student's ability to work independently, to take the initiative in exploring a line of research, or in acquiring a new skill or in identifying and remedying a perceived area of weakness. Students pursuing degrees by research (MSc, MLitt, DPhil) may attend such courses on specific research skills such as computer and statistical techniques, and supervisors will provide advice about the nature of research, sources available and the standards expected. Your supervisor will meet you at specifically agreed times if you encounter particular problems or difficulties that you need to discuss.

4 MSc in Computer Science

4.1 Aims

As in other branches of applied mathematics and engineering, improvements in the practice of programming require determined and meticulous application of traditional methods of mathematical understanding, calculation and proof.

Recognising this, the MSc in Computer Science at Oxford has been designed to teach the mathematical principles of specification, design and efficient implementation of both software and hardware.

It is intended as a graduate conversion course both for those who have already been trained and/or employed as programmers, and for graduates of other numerate disciplines who have had less previous exposure to the subject.

The course aims

- *To provide a challenging and supportive learning environment that encourages high quality students to reach their full potential, personally and academically.*
- *To provide the foundation for a professional career in the computing-based industries - including telecommunications, process control, business-, mission-and safety-critical fields.*
- *To enhance the skills of a professional who is already working in one of these industries.*
- *To provide a foundation for research into the theory and practice of programming and the design of computer-based systems.*
- *To present knowledge, experience, reasoning methods and design and implementation techniques which are robust and forward-looking.*

The Department is committed to the development and application of effective theory based on realistic practice, and many of the modules were developed through consultation and collaboration with industry. We believe that only by the interplay of theory and practice can professionals be trained properly in such a rapidly advancing subject. Practice alerts us to real contemporary problems; theory is an investment against professional obsolescence.

Entrants to the course will come from a variety of backgrounds. Experienced programmers in industry and commerce will be motivated by the need for formal methods to overcome the problems of unreliable and inadequate software, or may wish to extend their understanding by studying new programming and development paradigms. Recent graduates in Computer Science will want to supplement their knowledge with the kind of sound mathematical basis which is not always found in undergraduate courses. Graduates in Mathematics, Science and Engineering will want to apply their training in the context of a rigorous application of the fundamental techniques of Computer Science.

On subsequent employment, graduates of the course will be able to select techniques most appropriate to their working environment, adapt and improve them as necessary, establish appropriate design standards and sound practices for both hardware and software, pass on these standards and sound practices to colleagues and subordinates, and keep abreast of research and development.

4.2 Course Selection

We hope that you will make a suitable selection of courses from among the many interesting topics that we offer. The choice should be related to the area of your subsequent dissertation but should not overlap with courses you have followed during your undergraduate degree.

To assist you in choosing courses, please consult the document “Selecting Options 2012-2013”

http://www.cs.ox.ac.uk/files/4904/Selecting Options.pdf

which lists the various options, grouped into themes. These are only meant to reflect natural associations of ideas among courses. When considering them you should bear in mind the requirements of the MSc as stated in the Handbook. Thus while you may want to do several courses from one theme, you can expect that you will need to choose courses from different themes to meet the MSc requirements.

Choices have to be made in advance, when you have least information on which to base them, so it is important to consult your supervisor. It is recommended that students undertake no more than four topics in any one term. However they need to have an average of > 50 in their best 24 units by the end of Hilary Term otherwise they will be deemed to have failed and will not be allowed to continue the course in Trinity Term.

A number of courses recommend pre-requisites; please check the relevant synopses.

Some of our lecture courses have upper and lower limits on the number of students: between five and twenty is a usual range. If numbers fall outside this range you may be asked to make an alternative selection.

It is therefore a good idea to start discussing the choices with your supervisor as soon as possible during your first week at Oxford. Your choices have to be approved by the Organising Committee for the MSc and, in this respect, there are certain deadlines laid down in the regulations to which you must adhere. There are a number of important deadlines:

Monday 22nd October (beginning of 3rd week, Michaelmas Term). You must declare to the department your selection from among courses lectured in the first term or the Christmas vacation.

Monday 28th January (beginning of 3rd week, Hilary Term). You must declare to the department your selection of remaining courses.

Monday 22nd April (first Monday of Trinity Term). You must hand in an essay about the background and objectives of your project together with a

plan of work. This is a strict deadline and must be adhered to. You will receive more information at the beginning of Hilary Term about the procedure for selecting your project. Your supervisor during Michaelmas and Hilary Terms will also provide you with advice. If you are experiencing particular difficulty, you should contact the Academic Administrator or the PGT Course Administrator.

4.3 Synopses

Synopses of the courses being offered can be found on our web pages at: http://www.cs.ox.ac.uk/teaching/courses/

4.4 Hours of study

Typically a student would attend between 8 and 12 hours of lectures, 4-6 hours of practicals and 3 hours of classes a week. In addition it is likely that students would complete 15-20 hours of private study each week. Students will be working during the vacation on their assignments and in the summer on their project.

4.5 Timetables

These will be sent to you at the beginning of each term but can also be found on our web pages at: http://www.cs.ox.ac.uk/teaching.html

4.6 Tutorial Classes

Each lecture course will have associated tutorial exercises and, in most cases, practical exercises as well. You are expected to attend the tutorial classes and any practical sessions for the courses you wish to follow.

The lecturer will provide you with the tutorial exercises. Your work on these exercises must be handed in by the required deadline for assessment by the person running the tutorial classes for that subject. The timetable for these classes (and the associated deadlines) will usually be published sometime during week 1.

There is usually one class per subject each week starting in week 2 or 3, so you are likely to be attending 3 or 4 tutorial classes a week from week 3 onwards. It is also likely that you will have to hand in the first set of work for each of these subjects early in week 2.

The marks from the tutorial exercises will be passed to your supervisor for information. A record will also be held centrally as we have to provide the Examiners with information on the extent to which each candidate has pursued an adequate course of tutorial class work.

4.7 Practicals

Practical classes for courses organised by the Department of Computer Science usually take place in room 379 in the Department of Computer Science or in the Practical Laboratory (room 6.09) on level six of the Thom Building, where demonstrators will usually be present to assist you in overcoming any difficulties you may experience. **Attendance at these supervised practical classes is compulsory** if you are to get full credit for practical work in the examination. The purpose of practical exercises for the Computer Science courses is to help you make sure you understand the application to practical programming of the theory that is taught in lectures; demonstrators at the practical classes are there to help you learn as much as possible from them.

For each lecture course with a practical component, a series of supervised practical sessions will be arranged. They will typically be in the same term as the lectures. For example, a course with two practical exercises might have a practical timetable as follows:

Weeks 2, 3, 4, 5 Sessions for first practical
Weeks 6, 7, 8 Sessions for second practical

Practicals are assessed in two ways: first, the demonstrators keep a record of who has attended the practical sessions and completed each practical exercise associated with a lecture course; and second, you will write a practical report that the demonstrators will mark and which you will submit to the Examiners with your written assignment. Records of attendance and completion of practical exercises will also be held centrally.

If you are taking a lecture course with practicals, you must sign up for the practical session within the first two weeks of term. You can do this by signing into the Minerva database (details will be given to you on how to do this). When you attend a practical session, you will find that specific machines have been reserved for the practical, and there will be a register for you to record your presence. You are expected to attend the sessions for each practical until you have completed it.

For example, with the timetable shown above, you must begin attending practical sessions for the course in week 2. If you complete the first practical early, say in week 4, then you may attend the session in week 5 in order to start the second practical, but you are not obliged to do so. Unless you have already finished both practicals, you will be expected to attend again in weeks 6, 7 and 8. If you are unable to attend a practical, for example because of illness, you should inform the demonstrator in charge.

These rules are made with three purposes in mind: to make it easy for you to avoid getting behind with your practical work; to make it easy for the demonstrators, who can mostly concentrate on demonstrating the practical that is currently active; and to enable the examiners to be sure that work signed off by the demonstrators is your own.

In order to have the demonstrator record that you have completed the practical, you must show that you have done the work, perhaps by demonstrating a working program. In the ordinary way of things, you will have done the work in the lab with the demonstrator's help, and he or she will be able to check quickly that you have finished. You may prepare your practical work in advance of a practical session and bring it for checking at the session, but the demonstrators will not check off your work unless you have been attending the practical sessions.

You are encouraged to write up reports on practicals as you do them during the term. The demonstrators will happily look at your reports and give you advice about them at the practical sessions, and mark them there and then. It is perfectly acceptable to have your report marked at one practical session, then do further work on the practical and submit an improved report by the deadline. Please note that you must turn up at the beginning of the session in which you wish your practical to be marked; the demonstrators will not have time and will not be willing to mark your practical if you turn up for only the latter part of the session.

4.7.1 Writing practical reports

Each practical requires a report to be submitted for assessment. The report should not be a major burden: it is simply to provide evidence that you have done the work properly. Practicals should contain specific instructions as to what should be included in the practical report. In any case the following guidelines should be followed.

In many practicals, most of the report will be in the form of a program. Of course, you are expected to follow good programming practice:

- in a multi-module program, you should include some text explaining the role of each module, and the relationship between them;
- you should include suitable comments explaining the purpose of variables and procedures;
- you should also include comments to explain any interesting algorithms you have used: writing down an invariant will often help;
- you should make the code easy to read, for example by following standard indentation conventions, and by suitable use of white space.
- you should also include some evidence that the program works, for example by including sample output or screen shots: testing is a very important programming skill, and so you should show that you have considered suitable tests.

Many practicals will include specific questions for you to answer. Make your answers concise and relevant.

If the aim of the practical is to produce some experimental results, then you should present and discuss those. Do not just include pages and pages of numbers generated by the program. A concise summary is better - perhaps using another program to show the results are correct (by making a graph, for example).

Try to avoid reproducing large volumes of code from the practical materials or repeating program code that you have already listed in the report. If a second program has to include the same procedure definition (for example), just write "Procedure Sort(x) defined as before."

You may want to use text formatters like TeX or LaTeX to produce reports, or word processors running on your personal computer. Be careful that the time you spend in formatting the document prettily does not distract you from getting the content right. A cogent, concise, neatly hand-written report is preferred to pages of word-processed verbiage. If you do produce a typed report, please ensure that it is legible, with adequate margins and with type that is no smaller than 10 points. While working on your practical, keep a record of the tests you performed on your program, so that you can easily copy relevant data into your report.

Do not copy any other person's practical report: if you do, you are likely to end up in trouble with the Proctors. You may have general discussions with other students about the practicals, but the report must be all your own work.

4.7.2 Late practicals

Practicals are intended to support the lectures and tutorial work on a course, to help to impress material on your understanding, and to connect theory with practice. Accordingly, it is very much better to be doing the practicals for a lecture course at the same time as the other work on that course. Deadlines are set to help you to resist the temptation of putting off practicals.

Another advantage of doing your practicals during the scheduled sessions is that the demonstrators are often able to spot problems that are affecting several people and do something about them, perhaps clarifying the instructions or providing a piece of missing information. If you do not attend the practical sessions, you will not have access to this help.

Under the rules specified in the Examination Regulations, the Examiners will not take into account practical reports unless they have been *signed by a demonstrator*. The markers will sign the reports when they mark them.

The Examiners will give you no credit for practical work that was not submitted for marking by the deadline and signed by a demonstrator, unless there are extenuating circumstances.

Likewise the demonstrators will not mark work that is late, unless there are extenuating circumstances. If there is a good reason why you can't submit your practical on time, for example because you were ill, then you may submit your practical late through your supervisor - who will ask you to give a detailed account of your reason.

4.7.3 Practical marks

When you have completed the work for a practical and the report on it, a demonstrator will check and mark your work at a practical session. The demonstrator will ask you first to show that you have done the work, leaving aside any optional parts, and will record this fact in their register, together with your attendance at practical sessions. If a practical turns out to be very long or difficult, the demonstrators (with the advice of the course lecturer) may record the practical as complete if you have done a reasonable amount of work, even if you have not finished it.

The demonstrator will also mark your report, either at the practical session if there is time, or by taking it away and returning it later. The practical report will be marked, taking into account whether you have done any optional parts, as well as the quality of your write-up, and the general difficulty of the practical exercises. As a general guide, even an incomplete report on each practical in the course gains more credit than one where some practicals are entirely missing. Extra credit is awarded for completing optional parts of practicals, but not to such an extent that it is worth spending many hours finishing every optional part.

The following scale of marks is used by the markers; 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.

In examinations, the marks for practicals are treated separately from those for assignments and written examinations. It is necessary to achieve an overall pass mark in practicals in order to pass the examination.

The following percentages are allocated to the grades shown above:

- **S+** 100%
- **S** 70%
- **S-** 30%

4.8 Assignments and Written Examinations

Lecture courses are examined either by assignment or by written examination. In 2012/13, the following courses will be examined by written examination: Functional Programming; Databases; Intelligent Systems, Computational Complexity and Knowledge Representation & Reasoning. All other courses will be examined by assignment.

4.8.1 Assignments

At noon on Friday of week 8 of each term you will be given assignments for each of the lecture courses for which you have registered that term and which are examined in this way. For courses that are shared with the MSc in Mathematics and Foundations of Computer Science, the assignments will be given out on Monday of week 8. Typically you will be given two to three weeks to complete all the assignments. The deadline for completion will be indicated on the assignment.

Remember that you *must* complete at least 28 units but no more than 34 units of assignments with a maximum of 12 units from Schedule A. A candidate must attain an average of at least ≥ 50 (pass) in the assignments or written examination in their best 28 units of topics.

The following guidelines on the completion of assignments have been prepared by the examiners but you should also see the section on Examinations.

An assignment will normally take the form of a tutorial sheet containing about four questions on the course, and will contain bookwork questions and new exercises. Assignments should each take 2-3 days for topics under Schedules A and B, and 3-4 days for topics under Schedule C. You may, however, need an extra day for background reading. You should aim to spend no more than two to three days on each assignment, excluding preparatory reading.

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.

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 waste your precious time in presenting your answers in Word format or in LaTeX-ing your answers (unless you are accomplished at this).

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 as long as it

reaches the minimum standard. Furthermore, your work may suggest remedial action to your supervisor.

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 Wendy Adams. **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!

If problems arise, please consult your supervisor (or the Director of the MSc course) in the first instance. Supervisors will not be able to help you answer the assignments, but they may be able to help you with your reading and your planning. They will consult the examiners on your behalf if necessary, and inform the examiners (through the Proctors) of any extraneous factors (e.g. illness) that may affect you. If you have difficulty contacting your supervisor you should contact Wendy Adams. You should not make direct contact with either the lecturer concerned or the examiners.

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.admin.ox.ac.uk/epsc/plagiarism/index.shtml and (b) your supervisor if you are worried about possible suspicion of irregularity in examination procedures.

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://library.leeds.ac.uk/info/200232/referencing

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.

If you fail an assignment, it is possible to remedy the situation later; but the consequences of copying can never be remedied. Please consult your supervisor or the Course Director if you are worried about any possible suspicion of any irregularity in examination procedures. The following link offers additional relevant advice:

http://www.admin.ox.ac.uk/epsc/plagiarism/index.shtml

When matters of plagiarism are reported to the Proctors, the investigations can be protracted and involve serious stress for the candidate(s) concerned. Penalties imposed can result in the assignment(s) being disregarded and this could ultimately mean failure of the degree course.

4.8.1.1 Submission of Assignments

Answers to the assignments should be submitted to the Chairman of Examiners via the Examination Schools to arrive by the date specified. Unless the answers are delivered by hand, students are advised to use registered post or a courier delivery service.

4.8.2 Written Examinations

In 2012/13, the following courses will be examined by written examination at the following times:

Functional Programming	week 0, Hilary Term
Databases	week 0, Hilary Term
Intelligent Systems	week 0, Hilary Term
Computational Complexity	week 0, Trinity Term
Knowledge Representation & Reasoning	week 0, Trinity Term

4.8.2.1 Preparation

Your supervisor will advise you about revision and practice.

Past examination papers are a good guide to the sort of examination question that you might be set. A word of caution: the syllabus for examinations changes over time, and is certainly not determined by what has appeared in past papers.

Past papers can be found on the Web at:

https://www.cs.ox.ac.uk/teaching/internal/papers/MSCinCS/

4.8.2.2 Entering

Your College arranges for you to be entered for both the assignments and the written examinations, which involves the submission of an exam entry form from the College to the University detailing all of the papers which you are sitting. A few weeks before the examinations begin a timetable will be issued and sent to your College showing where and when each of the written papers will happen. Your College will pass on to you your timetable together with a randomly allocated *candidate number* which you will use to identify your scripts, instead of your name and College, so that they can be marked anonymously.

4.8.2.3 Notices to Candidates

Before your examination you will receive one or more letters of *notice to candidates* from the examiners which will tell you of any details of the examination procedure that are different from the usual. Notices to candidates will be sent to you Wendy Adams. These notices contain important information about your examinations and should be read very carefully. If you have any questions then please ask your supervisor; you should not contact the examiners directly.

4.8.2.4 Procedure for Written Examinations

Your written examinations will be held in the Examinations Schools, on the High Street. Different papers happen in different rooms around the building, as detailed in the entrance hall.

***You must wear full academic dress (sub fusc, gown and cap) to attend public examinations, and you must bring your University card with you. Your College will advise you about academic dress*.**

You should make every effort to be on time for examinations. If you are not there at the start of the examination, attempts will be made to contact your College or the Department of Computer Science to find out why not. Generally speaking there is no insurmountable difficulty if you get there in the first half hour, although you will have less time to do the examination. For this reason, nobody may leave an examination until half an hour after it starts.

Desks are identified by your name and college, with the desks in alphabetical order of names, but you will need to know your candidate number so that you can write this (and *not* your name) on your script when you hand it in. For each paper that you sit you will be given a cover sheet on which you identify yourself by your candidate number, and the paper by its number and title.

The question paper will be on your desk when you go in to the examination. You should check that it is the paper that you have entered for, and you should carefully read the instructions on the cover, but you may not open it until told to do so. Read the wording of each question carefully, and make sure that you have not missed out any parts.

You will be provided with (probably) booklets of ruled A4 paper in which to write your answers. The Exam Regulations require that you write in ink, rather than pencil, although you may use pencil for any graphs and drawings. It is a good idea to use blue or black ink, rather than something more unusual, in the interests of anonymous marking. Please start each answer on a new page. (This makes it much easier for the marker.) If you do start part way through a sheet, do not worry: just make a clear note of the fact so that the examiners can be careful not to be confused.

You must write legibly: if nothing else it will avoid annoying the marker; but there is a provision for illegible scripts to be typed *at the expense of the candidate*!

You will be given instructions at the examination about handing in your script. It is your responsibility to do this: anything left on your desk is liable to be thrown away by the person clearing the room. There will be treasury tags for you to use to attach booklets together. The rubric on the paper will tell you whether to bind everything in one bundle, or whether to hand in answers to different parts of the paper with separate cover sheets. If you do not attempt any questions from one part of the paper, you should still hand in a cover sheet for that part, so that the examiners can check that all parts of all papers are accounted for.

4.8.2.5 Marking and Classification

The way in which the Examiners administer the examinations is described in the Examination Conventions which can be found at:

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

For all exams, the examiners base their assessment of your 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.

4.9 Dissertations

A description of possible dissertations and proposed supervisors will be available during Michaelmas Term. You should discuss with your supervisor the general area of your project, because this may help in selection of appropriate lecture modules through the year. The sooner you choose a specific project, the sooner you will be able to start background reading and investigations.

You will be required to submit a project registration form in the second half of Hilary Term; you will be given details of the specific date for submission nearer the time.

Available projects and a registration form will be found at:

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. The supervisor of your project may be different from your supervisor in the first two terms. 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, (supervisors may accept students on a “first come, first served” basis) then the Projects Committee will try to find a suitable person to supervise one of the projects you have listed. If you do supply a list of 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.

There is also a formal requirement for you to submit a summary of your selected project to the Director of the course before the first Monday of Trinity Term. This must be accompanied by an essay of one to two thousand words describing the project, including

- Background: the theory or application areas.
- General open questions.
- Selection of particular question for study.
- Proposed method.
- Draft Timetable.
- Signature of Project Supervisor.

You need not do a project from the circulated list; if you prefer, you can make up a new project description in consultation with someone who would be prepared to supervise it. A good way to start is to draft a description of what you propose to do as though it were going to be part of the circulated list, then show it to staff who you think might be interested in supervising it.

The project is required to "demonstrate in the dissertation an appreciation of the role of methods studied in the course". (This quote is from the Grey Book Regulations.) What this means in practice differs from project to project. For example, if the project is devoted to constructing a substantial piece of software, it will probably involve the development of formal specifications of the more crucial parts of the structure, attention to good software engineering practices in building the system, and possibly some reasoning about the result. If the project involves mathematical modelling of an artefact or process, the ideas would have to be put into a general context, relating them to material studied elsewhere in the course.

4.9.1 Structure

The main body of the dissertation should be preceded by a table of contents listing chapters and sections. Every page in the main body should carry a header indicating the current chapter or section.

The main body of the text of a typical dissertation will contain:

- an introduction: the first chapter should introduce the subject of the dissertation and explain the structure of the text to the reader.

- an explanation of the problem: a second chapter should explain the problem to be studied, or the context in which the work takes place.
- a description of the method: a third chapter should introduce the method used to solve the problem, or the formal techniques employed.

- an account of the work: the following chapters should present the work carried out during the project, including any practical results and theoretical insights obtained.
- conclusions: the final chapter should contain conclusions drawn from the project, comparisons which may be made between this and existing work or practice, and suggestions regarding the extension or continuation of the work.
- a bibliography, and/or list of references.

Material that is used to support the work but does not have a place within the body of the text may be included as an appendix. Typical examples include program code, mathematical proofs, and sample output.

The dissertation should be securely bound in such a manner as will facilitate reading and assessment. Students may wish to submit additional material in electronic form; this will not affect the formal assessment of the dissertation, but may prove useful to the examiners. See also section 4.11.2.

4.10 Presentation Skills

In Trinity Term there will be sessions on presentation skills and on writing skills. All students are expected to attend as these will provide you with useful background for your dissertation.

Overseas students whose first language is not English are encouraged to investigate attending one of the courses on English for Academic Study given in the University Language Centre.

See *http://www.lang.ox.ac.uk/*

If you think this would be suitable for you, please discuss it with your supervisor or the Academic Administrator.

4.11 Examinations

The Regulations governing the M.Sc. in Computer Science are printed in the Examination Regulations 2012. If you have not received a copy from your college, please see either Wendy Adams. The Regulations are definitive. The following text gives further information.

The examination procedures for the M.Sc. are adapted to the nature of each module. They are designed to test whether you have understood the basic concepts and principles, and know how to put them into practice. The modules are assessed separately, and your academic record will include a list of those that you have passed. To satisfy the examiners for the degree of MSc in Computer Science, a candidate must attain an average of at least ≥ 50 (pass) in the assignments or written examination in their best 28 units of topics. A pass in the dissertation, pursue an adequate course of practical work and achieve an overall pass in practicals, and unless dispensed under cl.3 (iii) above satisfy the examiners in the viva voce

examination. Candidates may complete at most 34 units, including a maximum of 12 units from Schedule A.
The main part of the examination consists of assigned work which you carry out by yourself and hand in by a designated date. It is very important that this is your own work, even if it contains your own omissions, errors, and misunderstandings. You may talk about your problems and perplexities with your supervisor, but do not show him or her a copy of your draft submission, and do not expect corrections. You should not discuss the assignments with your fellow students, **never** try or ask to see another student's draft, and make sure that you **never** show your own. If you have received significant help from anyone, the extent should be explicitly acknowledged.

> **A student may be tempted to copy, or closely paraphrase, a substantial part of a submission or a program from another student or from some other unacknowledged source. Sometimes an attempt is made to conceal the copying by changing words or wording. This is regarded as a fundamental betrayal of academic honesty. The procedures for dealing with it are unpleasant, and may result in the offending student's expulsion. Please see Section 4.6 and also Appendix L on Plagiarism in the Exam Regulations.**

N.B. It is also necessary for candidates to achieve an overall pass mark in practicals in order to pass the examination. Please see Section 4.5.3

4.11.1 Assessment and Moderation

The following guidelines have been prepared by the Examiners to help you understand the marking procedure:

The M.Sc. in Computer Science is examined by assignment/written examination and dissertation. The five appointed Examiners for this degree do not mark the assignments and written examinations themselves, neither do they undertake the first reading of each dissertation. Instead, these tasks are carried out by appointed assessors, usually a member of the academic staff with expert knowledge in the subject area.

The role of the examiners is to moderate the judgements made by the assessors, ensuring that assessments are consistent, and that expectations are uniform across the entire range of modules and assessors; only then will they form an overall impression of each candidate's performance.

For this process to be successful, the examiners will require a complete report from each assessor. They receive:

- an annotated final marking scheme for the assignment: revised in the light of candidates' answers and alternative approaches to the questions,

- an account of the assignment itself: an explanation of how the questions fared as tools for assessment,

- an indication of the performance of the class as a whole: an account of how the assignment was received.

For each candidate:

- a marked script: the examiners should be able to see the points at which a particular candidate gained or lost marks.

- mark allocated according to the interpretations in Table 1,

- some comments to explain the choice of mark, and to assist the examiners in moderation.

Table 1 gives a description of the performance required for each mark band. Please note that a mark of at least 50 is required to achieve a Pass in either the dissertation, assignments/written examinations.

4.11.1.1 Marking Assessments

Each band has an informal interpretation:

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 f 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.

Distinction

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.

Pass

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.

4.11.2 Dissertation

These guidelines are for students, supervisors, and assessors on the M.Sc. in Computer Science; they are designed to indicate the expectations of the examiners in assessing the dissertation.

Two typewritten or printed copies of the Dissertation must be handed in by 12.00 noon on Friday 6th September 2013 to the M.Sc. Examiners (Computer Science), c/o Clerk of the Schools, Examination Schools, High Street, Oxford. This must be accompanied by the declaration form about originality. You will also be required to submit an electronic copy of your dissertation to TurnItIn, and also email a copy to Wendy Adams (wendy.adams@cs.ox.ac.uk).

The dissertation should be typed or printed - this wording is intended to allow LaTeX or another decent word processor. (LaTeX is the best choice if your dissertation involves a significant amount of mathematical notation.) 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.

The typing should follow the guidance for research thesis (see Examination Regulations).

4.11.2.1 Content

The regulations state that

> Candidates will be expected to demonstrate in their dissertation an appreciation of the role of methods studied in the course.

Such a *demonstration of appreciation* can take different forms; it might consist in an application of the method, or an extension to the theory. Examples include:

- a specification produced using a language taught in one of the specification-oriented courses;
- a result about inductive arguments for data refinement;
- a technique for conducting hazard analysis using a process algebra.

Each of these involves a single method. Most application-oriented projects will involve more than one method: if the project requires the development of a piece of software, then the resulting dissertation could demonstrate understanding of methods taught on a variety of courses.

In some cases, it may be possible to see the project work in terms of a clearly-defined problem and an original solution. In others, key problems emerge only during the project itself, and the value of the work lies in its contribution to understanding.

The only part of your project work which is seen and considered by the examiners is the written dissertation. You should therefore allocate a substantial part of your time to writing it; unless you are a practised writer of technical prose, then plan to take around a month for this. Some dissertations show signs of having been spoilt by a last-minute rush. The dissertation should be a technical document designed to be readable by a person who is neither the candidate nor the supervisor, nor a research expert in the precise subject area.

The Department's Library contains many previous dissertations, you can also find these on the MSc Thesis Repository database at:
http://www.cs.ox.ac.uk/msctheses/

You should look at some of these, in consultation with your supervisor, to get an idea of the appropriate length and style. Your supervisor will normally be happy to comment on a draft of your dissertation, but you must take care to allow time for this: some supervisors are likely to be away in the period leading up to the submission deadline.

4.11.2.2 Length and effort

Here, the regulations insist that

> Candidates shall submit a dissertation of not more than 30,000 words, plus not more than 30 pages of diagrams, tables, listing, etc., on a subject selected by the candidate in consultation with the supervisor and approved by the director of the course.

There is no minimum length. However, it would be unusual to see a document of less than, say, 35 pages that contained an adequate demonstration of understanding and appreciation.

Although it is difficult to measure such quantities, the effort required for the project and dissertation should be roughly equivalent to that required for five subject courses, with the associated practical work and assignments/written examinations.

The dissertation should have a definite structure - a beginning, a middle and an end. In particular, there should be a final paragraph or two bringing all the material together. However, you should take care that the introduction, the brief project description and the conclusion are not merely repetitions of the same paragraph cast into the future, the present and the past tenses respectively. You might well include in the report a section on what was learnt from doing the project: this could perhaps include a technical discussion of approaches that were tried and did not work. The conclusions should be reasonably general, so that they could be relevant and useful for other people embarking on similar short projects, or perhaps a continuation of this one. An analysis of your personal development from doing this project is also appropriate (or otherwise) by doing the project is appropriate. If applicable, include source code etc. as an appendix (possibly in smaller type).

4.11.2.3 Satisfying the examiners

The regulations state that the examiners must be satisfied that the candidate has attained an adequate level of achievement in the dissertation:

To satisfy the examiners for the degree of MSc in Computer Science, a candidate must attain an average of at least ≥ 50 (pass) in the assignments or written examination in their best 28 units of topics, pass in the dissertation, pursue an adequate course of practical work and achieve an overall pass in practicals, and unless dispensed under cl.3 (iii) above satisfy the examiners in the viva voce examination.
The decision of the examiners will be based upon two things: the standard set in previous examinations, and the stated aims of the M.Sc. in Computer Science.

Students are encouraged to examine previous dissertations, available in the library, but are reminded that many of these will be of a higher standard than would be expected of dissertations at the pass/fail borderline. A piece of documentation which is particularly relevant notes that:

> The project is written up as a dissertation, which should give a clear account of an attempt to apply some of the principles taught in the course in practice. Students are encouraged to pay careful attention to the organisation of the material and the style of its presentation.
>
> Although the expected standard is that of a good internal project report in industry, some past dissertations have reached publication standard, and others have been the starting points for research programmes.

Opinions may vary on what constitutes a good internal project report, but this remains a useful indication of intentions.

Each project will be read by at least one examiner, and an assessor on behalf of the examiners. Both readers will be asked to supply a brief paragraph describing the scope and achievement of the project, and will be asked to give a grade.

4.11.2.4 Factors in assessment

The mark awarded to a dissertation will be based upon the examiners' overall impression of the work. To arrive at this impression, they will consider the following factors:

Context: The dissertation should demonstrate, as far as is relevant, a good understanding of the context in which the work was undertaken. It should be evident that the student understood both the problem and the problem domain, and that the choice of approach was informed and intelligent. The examiners would like to be convinced that the student has a good general knowledge of the field.

Competence: The student should demonstrate, in the text of the dissertation, that they are able to apply the ideas and the techniques that they have studied. The

examiners will look for evidence of understanding, and appropriate application of techniques. They would like to be convinced that the student has shown competence in investigating the chosen topic.

Contribution: The dissertation should have some value in itself. This may arise in different ways: the dissertation may present a fresh application, an extension to a theory, a new solution, or a new approach to a problem. The value will depend upon the extent of achievement: the nature of the application, the utility of the extension, the elegance of the solution, or the coherence of the approach.

> All of these are intangible, but the examiners' expectations will be framed in the knowledge that this is work undertaken by new graduates (it should be better than a third-year undergraduate project, but not necessarily comparable with that of a research student). Ideally, the examiners would like to be convinced that the student has made a worthwhile contribution to knowledge or understanding in the field.

Clarity: If the dissertation is to succeed as a demonstration of knowledge and understanding, and if the examiners are to be convinced of the competence of the student, then a certain degree of clarity and organisation is required. However, part of the value of the dissertation lies in its accessibility: if it is to make a worthwhile contribution, then it must be readable.

> For these reasons, and because clarity of exposition may in itself reflect a greater degree of effort and understanding, the examiners would like to be convinced that the dissertation is presented in a lucid and scholarly manner.

4.11.3 Viva Voce

The examiners have the right to require any student to attend for an oral examination on Friday 4th October 2013. You will be expected to be available on that day. The oral examination is intended to help candidates whose performance in one or both of the other parts of the examination is questionable or not quite satisfactory. If you are required to attend, you should consult your supervisor on the best method of preparing yourself. Most candidates will be dispensed from attendance.

4.11.4 If things go wrong ....

In a course which takes as many students as this one does, it is probable that some will fail. Those who are most at risk can often be identified in time; and with extra support and/or special tuition, they can sometimes win through.

The most common cause for failure is personal problems. If these begin to affect your health or your work, do not delay in consulting your medical advisor or one of the many supervisors or advisors allocated to you by the Department and your College. Almost no problem is unique, whether it is emotional, medical or psychological; and nearly all problems can be solved or alleviated by those who

have the experience and expertise to advise, *provided that they know about it early enough*.

The second most common reason for failure is the undertaking of outside commitments or employment at any time during the academic year. **Do not do this**. It is incompatible with your status as a student of the University. In cases of exceptional pressure, you should discuss with your supervisor or the Course Director the options of withdrawing or delaying. This would be much better (financially as well) than failing the course and having to retake it.

A third possible reason for disappointment is a mismatch between the culture and content of the course and the experience and aspirations of the student. Every effort is made in course design, the provision of options, and the selection of students; but there is no way to avoid the occasional mismatch. This must be regarded as failure of the system rather than the student, and it is sensible to treat the problem without allocating blame. The best solution is to recognise the situation as early as possible, and avoid further waste of effort and disappointment.

4.11.5 Failure and Resits

The requirements that must be met to obtain the M.Sc. in Computer Science are set out in the Regulations, together with the consequences of failing to meet them.

Any candidate who has not achieved an average of at least ≥ 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.

To satisfy the examiners for the degree of MSc in Computer Science, a candidate must attain an average of at least ≥ 50 (pass) in the assignments or written examination in their best 28 units of topics, pass in the dissertation, pursue an adequate course of practical work and achieve an overall pass in practicals, and unless dispensed under cl.3 (iii) above satisfy the examiners in the viva voce examination.

The examiners may award a distinction for excellence in the whole examination.

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.

4.12 Difficulties

If you have difficulty in understanding a lecture, please discuss it with your supervisor, or the class tutor for the course; at least one of them should be able to make an explanation that meets your needs. If you find the lectures unsatisfactory in any other way, please tell the lecturer or your supervisor; they are keen to make

improvements where possible. If you find any aspect of your supervision unsatisfactory and you feel unable to discuss it with your supervisor, you should contact your Advisor, the MSc Course Director, the Academic Administrator or (in exceptional circumstances) the Head of Department.

4.13 Feedback

You will be asked to complete a questionnaire for each lecture course you attend. Please take the time to complete this and return it as feedback is extremely valuable in helping us to continue to improve the course and your learning experience.

4.14 Student Representative

You will be asked to nominate a student representative to sit on the M.Sc. Supervisory Committee which meets once a term on Thursday of week 2. Please make sure that the representative is aware of any concerns or comments you have regarding the course.

5 Communications

We have two main ways of communicating with you:

- **by email**: Please read your email frequently as there may be an urgent/important message for you from one of us. This will go automatically to the address the Department sets up for you. If you regularly use a different email address then you must ensure that your Department of Computer Science address is forwarded to it. Instructions on how to do this can be found at:

  https://wiki.cs.ox.ac.uk/wiki/support/EMail

- **by paper copy to your pigeon hole**: You will be allocated a pigeon hole in the post room which is just inside the main door of reception. Again, please check your pigeon hole on a frequent basis as there may be important information waiting for you.

Messages for staff may be left with the receptionist of the Wolfson Building or in their pigeon hole (Room 157)

5.1 University Gazette and Oxford Blueprint

The Gazette is published weekly, in term time and is the official publication for University business, regulation changes, meetings etc. It is available in all the University and College Libraries and in the Common Room on the ground floor.

Oxford Blueprint, a newsletter for University and college staff and students, is published in 0th, 3rd, 6th and 9th weeks of term. It contains news, interviews and features reflecting the diversity of activity across the University, and an events diary will be included.

5.1.1 Publications

Each group publishes a series of either Research Reports or Technical Reports and a series of Monographs. These are distributed within the Department and to the wider academic community, and provide a speedy way of publicising the work of the Department. Publication in these series can lead (and has led) to fruitful contacts with fellow-researchers and organisations who may wish to apply the research.

5.1.2 General Information

Information about the Department of Computer Science, its staff and courses is also available on World-Wide Web from the Department of Computer Science's home page:

http://www.cs.ox.ac.uk/

Information about lectures, seminars, job vacancies, etc. will be placed on the relevant web pages.

Announcements of seminars and talks are displayed on newsgroups and noticeboards. Do read the newsgroups:

- ox.cs.announce
- ox.cs.misc

You can read the newsgroups with the command `trn'.

5.2 Seminars

All Graduate Students are encouraged to attend the following series of seminars:

The Departmental Seminars are held in the Department at 16:30 on most Tuesday afternoons in term time. They are frequently presented by distinguished speakers from outside the Department, and they are well worth the time to attend.

In addition, there are many informal seminars and discussion groups in the Department. Their meetings are usually publicised at relatively short notice on the notice-boards and electronic newsgroups and web pages. You should check

http://www.cs.ox.ac.uk/seminars/

6 Careers

We are approached by many companies who are interested in employing our students and we frequently arrange recruitment talks here either in the lunch hour or early evening. The University has a Careers Service at No 56 Banbury Road which can offer you lots of help and advice and which provides information on jobs advertised. Additional information on jobs being advertised can be found at:

https://www.cs.ox.ac.uk/industry/internal/vacancies.jsp
and
http://www.cs.ox.ac.uk/admissions/dphil/newsindex.html

Please check this site regularly as information is constantly updated. Lots of information can also be found on the Notice Boards in the basement and in the common room. DO NOT TAKE UP EMPLOYMENT UNTIL YOU HAVE COMPLETED YOUR DISSERTATION, I.E. NOT BEFORE THE BEGINNING OF SEPTEMBER.

7 Holidays

Please note that this is a full time course and you will need to be in Oxford for most of the year. This means that you should not take on any other commitments during the year, e.g. it will not be possible for you to fit in any sort of employment. Also, before making any holiday arrangements, please bear in mind that you will have to complete written assignments and possibly attend one-week options outside of normal term. You should seek advice from your supervisor or the Academic Administrator before booking holidays.

8 Access to course material pages from outside ox.ac.uk

There is a lot of course material on the Department of Computer Science web pages. This can be accessed from outside the Oxford domain, though it is protected.

If you try to access these pages from outside ox.ac.uk you will reach a page saying

If you try to access these pages from outside ox.ac.uk you will be redirected to the common Single Sign On authentication page. Successful completion will return you to the materials pages you requested.

This material is made available for your use only (it is copyright of the authors). You should not pass it on to anyone else, nor should you let anyone else know your Single Sign On details

Alternatively, you could use the university vpn service, which uses your "Remote Access" password for SSO authentication, to mimic being inside the university.

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9 Doing a Research Degree at Oxford after the MSc

Some students undertake the M.Sc. course specifically as initial preparation for doing Ph.D. level research; others discover an interest in doing research during the course. If you wish to be considered for a research place in the Department, you will have to apply following the standard applications procedure. The process and deadlines are documented on the Department's web site, and you are encouraged to consult the information provided there.

You should be able to obtain a pre-populated form from OSS Student Self Service which will contain all the relevant information currently held. This application form should be available from November. You will need to submit the minimum supporting material, i.e. a transcript, two references and a research proposal. One of the references should be from your supervisor at Oxford.

If you wish to apply for Departmental or EPSRC funding you should indicate this on the application form with the appropriate studentship code.

IF YOU ARE APPLYING FOR ANY FUNDING YOU SHOULD AIM TO APPLY BY THE NOVEMBER DEADLINE BUT MUST APPLY BY THE JANUARY DEADLINE.

As you will see in the notes accompanying the application form, a *research proposal* must be included in your application. The proposal is important, so you should spend some time on its preparation. We use this document to assign you a provisional supervisor, who acts as your advocate during the competitive selection process. A weak or inaccurate proposal may result in assignment of an inappropriate provisional supervisor or one who could not advocate you strongly. Your provisional supervisor also assumes responsibility for you initially, if you are offered and take up a D.Phil. place.

Your research proposal need not be long. It should not exceed about six pages, and between two and four pages is typical. It should contain the following items: a clear description of the proposed topic of research; why you think the topic is important; a little technical detail; a brief survey of relevant work and a short bibliography; and, if possible, a proposal outlining your plan of research towards the D.Phil.

Of course it's a good idea to have informal discussions with potential D.Phil. supervisors in the Department, before proceeding to a formal application. Perhaps you are thinking of a research proposal arising from your M.Sc. project, in which case you should discuss your ideas with your project supervisor. Perhaps you have become interested in the research area of one of your lecturers or another member of the Department; get in touch with them to talk about it. The Director of Graduate Studies or the Graduate Studies Administrator are also happy to talk informally about doing a D.Phil.

10 Department of Computer Science - General Information

The Department of Computer Science is housed in a building specifically designed, constructed and equipped for it, largely funded through the generosity of the Wolfson Foundation and the Wolfson Family Trust. The Department's postal address is:

Department of Computer Science, University of Oxford
Wolfson Building
Parks Road
Oxford, OX1 3QD
England

This building stands at the south-eastern angle of what is known as the Keble Road Triangle consisting of Keble Road, Banbury Road and Parks Road. The Lecture Theatres on the lower ground floor (Lecture Theatre A) and on the ground floor (Lecture Theatre B) can be reached from the entrance to the right of the main Parks Road entrance, as can the seminar room 051.

Rooms have a telephone which can receive calls directly from outside as well as internally. The number to give people is “01865 2*****”, where the *s represent the extension number.

Please do not give people the general enquiries number or the secretary's number.

10.1 Room Numbering

The number system for rooms is made up of a three digit number which designates the floor level in the building as well as the actual room number. Hence room numbers beginning with 0 are in the basement, room numbers beginning 1 are on the ground floor, room numbers beginning 2 are on the first floor, and so on up to room numbers beginning 5 which are in the attic.

It is possible you may use the Practicals Laboratory (6.09) in the Thom Building which is the large glass sided tower block between Banbury Road and Parks Road. Entry is on level 2 from the walkway.

Please take note of any warning signs and ensure you know where the emergency escape routes are located.

Please note that various doors both in the Wolfson building and the Thom building have signs warning that the door is alarmed. These doors are **only** to be used in an emergency and not for any other reason.

10.2 Opening Hours

The Wolfson Building opens at 08:30 and the doors are locked at 17:15, Monday to Friday, excepting closed periods (i.e. Bank Holidays out of term time).

The Thom Building opens at 08:15. The doors are locked at 19:00 in term time and at 17:30 during vacations.

Detailed rules governing access to the Department of Computer Science are as follows:

10.3 Access to the Department of Computer Science

An entry-card system controls access to the Wolfson Building outside normal opening hours. You will also need a card to be able to access your pigeon hole.

This applies to the main Parks Road entrance and the entrances on 6, 7 and 11 Keble Road entrance of the Wolfson Building. The front door of No.8 Keble Road has been alarmed and should only be used in an emergency.

The cards also control access within the building from the Lecture Theatre areas.

University cards, if you already have one, will be activated for the Department's entry card system, when you have signed the enclosed declaration (yellow sheet included in your information pack).

To activate your entry card you will need to take your University Card, to Brenda Deeley (106). You will need to select a four digit pin number.

10.4 Rules

The rules for using this system are:

- A card and individual PIN will be issued to all staff and graduate students who require access to the Wolfson Building. In the case of graduate students, a University Card is required. Please complete the yellow form in your induction pack.
- The PIN must be kept secret and under no circumstances should be written on the card or in the wallet where the card is kept. (Should an entry card be lost, access cannot be effected without knowledge of the PIN. The card can be also be barred when it is reported lost).

- Each card will be set to operate for the period of the student's stay in Oxford.
- Cards will be issued on a personal basis and must not be loaned or passed on to another person.
- No-one should allow access to another person unless they are prepared to “escort” them throughout their stay in the building.
- When a card is used to gain access to the building, the system keeps a record of that use for a period of approximately six months.

10.5 Teaching Rooms, particularly Room 379

You may use room 379 when there are no supervised practical sessions scheduled.

You may **not** use it when sessions are scheduled unless you are part of the group that was signed up for that session.

You may **not** use the kitchen adjacent to room 379.

You may **not** unplug the Department of Computer Science's machines in room 379, nor should you plug your own equipment into the sockets, unless this has been safety tested.

It is forbidden to take food or drinks into lecture rooms, seminar rooms or computer rooms.

11 Computers

The Department of Computer Science's teaching network comprises 83 PCs. 35 of these are located in room 379 of the Department of Computer Science where most of the graduate practical sessions will take place. These machines are dual-boot and will run Linux or Windows. There are also 48 PCs in the Practicals Laboratory (6.09) on Level 6 of the Thom Building, which is the main building of the Engineering Science Department. This is the tall building to the north-west of the Department of Computer Science. The machines in the Thom Building run Linux and are mostly used for undergraduate practical sessions though MSc students may occasionally have a practical session scheduled there.

Additionally there is a server based remote access service available at all times from anywhere, such as personal laptop at home or through networked computers in college computer rooms (you should check with your college for information about the facilities they provide.)

All students need to complete an application form to use Department of Computer Science computing facilities. A form is enclosed with your information pack *(see also Appendix D).*

Most students have some prior knowledge of using computers; however it is inevitable that not all of you will have specific experience with the type of systems available at Oxford. Therefore during your first week you will have an introductory session with the Departmental Lecturers and you will have the opportunity to attend a practical session to familiarise yourself with the systems available and give you an initial opportunity to use the network and ask questions.

Those courses which have practical work associated with them are supported by time-tabled practical sessions in the Practicals Laboratory (Level 6, Thom Building) throughout the term. These sessions guarantee students exclusive access to the computing facilities they require to complete their work. Demonstrators are present at each session so that you can obtain help with the practicals as you are doing the work.

Although the computers in 379 are often booked for practical use, there are times when these computers are available for students to use outside the arranged practical sessions. This is mainly to facilitate work on projects. Many students also find it useful to be able to do further work on their practicals outside the normal practical times, or to take the opportunity to learn more about the facilities available.

Oxford University IT Services (formerly OUCS) run introductory courses throughout the year. These courses will be helpful for those of you who have had less opportunity of hands-on experience with computers. They will also help you to explore facilities available at Oxford University which, although not required elements of any of your courses, may be of interest to you.

IT Services are based at 13 Banbury Road---opposite the Department of Engineering Science. You can find out about its courses here or at www.it.ox.ac.uk/itlp/courses.

11.1 Using your own Computer

You do not need a PC. The Department's computing facilities are all you will need during your graduate studies. However, some of you will have or will acquire a PC during this time. The practical work associated with some courses is flexible enough to enable you to do the work on a PC, provided it has the appropriate programming environments.

The Department's computing facilities can also be used remotely from personal computers attached to the University network or elsewhere on the internet, provided they have X server software and an SSH client (typically included in linux but not on Windows machines by default, where you need something like Exceed which is available from ITS for a nominal charge, and PuTTY which is available as a free download).

Before any personal computers may be used in the Department they must be tested for electrical safety and then checked for security patching and anti-virus software. Only after these checks have been passed will they be authorised for connection. These checks should be carried out in your college.

Please note that you will not be allowed to plug in a laptop in either the Practicals Lab in the Thom Building or in the Department of Computer Science, unless this has been safety tested. Wireless connectivity is available in these areas and most of the rest of the university as Eduroam. You self register for this on-line with your university card and Single Sign-on (SSO), details from ITS - www.it.ox.ac.uk.

12 Laser Printing

No restriction on the use of laser printer output is made, but we do monitor individual totals. Please make only single copies of output and use the photocopiers to

duplicate them if required. Multiple copies of documents cause delays for other users, so please do not abuse the privilege. We reserve the right to charge for excessive use.

13 Photocopying

Photocopiers are available for use by staff and students on all floors of the Wolfson Building.

The copier in the Library is only available to copy articles etc. from journals (subject to copyright laws) and must not be used for general copying. The other copiers can be used by anyone, but please seek instruction from John Peachey (Room 140) and always report any faults or problems to Casey Hambidge (Room 113) so that we can get the machines repaired. Private copying is monitored and maybe chargeable.

Copying in the Radcliffe Science Library or the Bodleian Library requires a special copy card. This can be obtained from Michael Neville (room 240) and will require you to pay an initial fee of £5 (for which a receipt must be obtained) to put a “credit” on the card during your first visit to the Radcliffe Science Library. Michael will refund this £5 on production of the receipt. When you leave the Department you should return the card to Michael Neville. If you lose your card, you will have to pay the cost of a replacement `credit' so please look after it carefully.

14 Pigeon Holes

All students and staff are allocated a pigeon hole in room 157 (near Reception). All post will be put in your pigeon hole, together with any messages. **It is extremely important that you check them regularly**. Please note that the room can only be accessed with your entry card.

15 Safety

All students should read Appendix A carefully before the start of term. The Department of Computer Science is a very safe place but we need your full co-operation to keep it so.

16 The Examination Schools

The Examination Schools are situated on High Street, to the east of University College. The full address is The Examination Schools, 75-81 High Street, Oxford. OX1 4GB

17 Staff Members

The Head of Department is Professor Bill Roscoe. You will find a list of current academic members (and support staff you may come across) in Appendix B. To help you to identify us, photographs can be found in our webpages at http://www.cs.ox.ac.uk/people

Academic Staff are in offices on levels 0, 1, 2, 3 and 4 of the Wolfson Building although they are sometimes away in their respective Colleges, and occasionally at conferences and study trips abroad.

18 Liaison with academic staff

There is a graduate student representative, currently Hugo Nava Kopp, on the Faculty of Computer Science which meets on the Thursday of sixth week. Please tell your representative of any matters or questions you would like raised at the Faculty meetings.

19 Library

The Department of Computer Science Library contains books, monographic series, journals, technical reports and past theses covering the main research interests of the Department. It is situated on Level 2 of the building.

Opening hours: Library staff are normally available from 09:00 - 13:00 and 14.00 – 16.30. The library remains unlocked at other times.

Registration: you will be pre-registered but you must confirm your registration by bringing your University Card to the library before you begin to borrow.

The Catalogue: books and journals are listed on OLIS (the University-wide online catalogue).

Borrowing: members are limited to 12 books at any one time. Books may be borrowed for 3 weeks at a time with possibility of renewal for a further three periods of three weeks unless a book has been recalled by another reader. Books are borrowed using the automated self-issue system. Please ask if you have problems using the machine. No journal or part of a journal may be borrowed.

Short-loan Collection: books in the short loan collection are held in the Library Office and may be borrowed for 5 days. The short loan collection is mainly composed of books listed on Reading Lists for the M.Sc. courses.

Web Pages: See http://www.cs.ox.ac.uk/internal/library

Other services: The library also contains copies of the MSc and DPhil these submitted by students attached to the Department and past examination papers.

Contact the Library: Michael Neville (Librarian), Aza Ballard-Whyte (Library Assistant), telephone 73837, e-mail library@cs.ox.ac.uk.

20 Harassment

By University legislation, it is an offence for any senior or junior member of the University to harass any other member or any person for whom the University is responsible. Sexual and racial harassment are among the forms of harassment covered by this rule, but it also covers any form of intentional or unintentional teasing, embarrassment or bullying which causes you inconvenience or unhappiness, particularly if persistent.

The University has a code of practice for dealing with any such cases which may arise and this is included *Appendix G*. In addition, the Proctors have set up a panel of people with relevant expertise to act as advisers in particular cases. These arrangements complement the procedures which may exist in individual colleges.

21 University Club

The University Club provides a social and recreational venue intended to serve the University's academics, post-doctorates, staff, postgraduates, alumni and those who have retired from academic or staff positions. To apply to become a member of the University Club, please visit the Club's web site: http://www.club.ox.ac.uk and fill out the on-line membership application form (accessible via the “Membership” link). On-line applications are preferred, but if you do not have access to the Internet, please complete the application form in your graduate pack and hand in to the reception desk, or, send them to Reception at the University Club. Applications may take two weeks to process. Once processed your University card will admit you to the club.

A. Safety Information

These notes give some information about the Department's safety arrangements. For further information, please contact the Departmental Safety Officer.

ACTION IN CASE OF EMERGENCY

To summon the FIRE BRIGADE, AMBULANCE SERVICE and/or POLICE, DIAL 999. Note that 999 can be dialled from any internal University telephone extension, even if it is otherwise barred from making outside calls.

For **SERIOUS ACCIDENTS** or **FIRES** on University premises, immediately after arranging for the emergency services, telephone again either the *University Safety Office* (ext 70810), or if the Safety Office is unmanned, the *Security Services* (ext 89999).

To summon the **SECURITY SERVICES**, dial 89999.

Remember that unless there is a continuing risk to others or to property, the law requires that in cases of serious accidents or fires the scene must remain undisturbed until it is examined by the Health and Safety Executive, the University Safety Office and Trade Union safety representatives. Some types of serious accident must be reported immediately. In those cases, the Safety Office is responsible for contacting the Health and Safety Executive.

First Aid

The department arranges in-house first aid training for new research students, normally through a two hour session in the week before Michaelmas Term. Any other member of the department interested in attending such a course should contact the Safety Committee Secretary. Several members of staff have taken part in extended first aid training, and a list of Qualified First-Aiders is posted in the entrance hall of the Wolfson Building; their names are also marked on the departmental telephone list. First Aid boxes are located with each of the qualified first aiders

Fire

There are blue **FIRE ACTION** notices in each building. Please read these *before* there is a fire!

If you discover a fire, immediately operate the nearest fire alarm call point (these are situated in the stair wells and at each emergency exit), and then attack the fire, if possible, with the fire extinguishers provided *but under no circumstances putting yourself or others at risk*. The receptionist or the senior person present should call the fire brigade immediately.

On hearing the fire alarm, leave the building **immediately** - use the nearest available exit, close all doors as you leave, do not stop to collect personal belongings. Do not use the lift - if you are unable to use the stairs, please wait inside the stairwell nearest the lift for the fire brigade to rescue you. Do not re-enter the building unless authorised to do so. Familiarise yourself with fire exit routes from the buildings, and relevant assembly points. The assembly point for the Wolfson Building is on the south side of Keble Road by the chapel of Keble College - do not cluster at the exits to the buildings.

Fire alarms in the Wolfson Building are sirens. It is necessary to test the alarms every Monday morning at 8:30am the alarm sounds only for a few seconds - assume that any fire alarm sounding for more than five seconds is a signal that you must leave the building.

In the Wolfson Building/eScience, there are several sets of fire extinguishers on each floor - including a set near the lift, and one in the South West stairwell (8 Keble Road). Please take note of where the nearest fire extinguishers are to the rooms you normally use.

Fire extinguishers in the Wolfson building are now in the European standard colours: they are all red! Carbon dioxide extinguishers are now identified only by a black panel, foam extinguishers by a cream label, and any remaining water extinguishers by a white label. Do not use water or foam on electrical equipment: use the CO2 extinguishers with the black label.

Escape routes

Please check that you know the **escape routes** from the buildings you use - again, *before* you actually need to use one in an emergency evacuation of the building. These are sign-posted in each building.

Corridors, stairwells and exits {\bf must not be obstructed}. Anything left in corridors, stairwells or exits will be removed. Bicycles which obstruct any of the exits or emergency exits will be removed.

Smoking

Smoking is not permitted anywhere on the University premises or immediately outside windows and doors. Smoke detectors linked to the fire alarm system are in operation in the Wolfson/eScience Buildings.

Electricity

All electrical equipment (including personal property) must be tested for safety before it is used in the Department of Computer Science buildings. Equipment must not be dismantled. If equipment is faulty, do not attempt to repair it - please email technicians@cs.ox.ac.uk. Do not tamper with electrical supply equipment. Do not unplug equipment without express permission. Please report any problems to the Department's technicians.

Equipment rooms

Electrical power in the various equipment rooms (including the Teaching Laboratory in the Thom Building) can be cut by an “emergency stop”. In the Thom Building, this is a white break-glass unit; in the Wolfson Building, it is a red button (either just inside or just outside the door to each equipment room); it is normally clearly labelled with a green “Emergency stop” sign. Please note
that it will need the support staff to restart circuits.

Lighting

Do not switch off any corridor lighting at any time. Please report any faulty corridor or staircase lighting to the technical staff. Please advise the Administrator if there are any other areas which are poorly lit.

Other Safety information

A blue ring binder containing a Statement of the Department's Safety Organisation, a Statement of the University Safety Policy, and a collection of University and Departmental Guidance Notes, is available in the Library (room 240) and in the Common Room (room 103).

The University Safety Office has a library of safety publications and other material at 10 Parks Road. The Office also issues an occasional newsletter ("OUCH") which is available in the Common Rooms and on notice boards.

Minutes of meetings of the Departmental Safety Advisory Committee are published, and are available on the department's notice boards.

Hanno Nickau
Departmental Safety Officer
14th August 2012

UNIVERSITY OF OXFORD HEALTH AND SAFETY POLICY - PART 2

STATEMENT OF HEALTH AND SAFETY ORGANISATION FOR THE DEPARTMENT OF COMPUTER SCIENCE

Statement by the Head of Department of the Department of Computer Science

As Head of Department, I am responsible for ensuring compliance with the University Health and Safety Policy in the Department of Computer Science. I am responsible for the entire premises of the Wolfson Building Parks Road, and the eScience Laboratory including those areas occupied by the Doctoral Training Centre and Oxford e-Research Centre, and 39A St Giles. Supervision of the University Health and Safety Policy in Engineering Science is the responsibility of the Head of Department of Engineering Science. Members of the Department of Computer Science who have rooms in, or use rooms in the Thom Building are required to familiarise themselves with the corresponding statements of safety organisation. My responsibilities are set out in Annex A. I have delegated some parts of these responsibilities to others and this document describes these and also describes the advisory arrangements within the Department.

EXECUTIVE RESPONSIBILITY FOR SAFETY

Every employee with a supervisory role is responsible for ensuring, in accordance with the law, the health and safety of staff, students and other persons in their area of responsibility and also anyone who may be affected by their work activities. In particular, the following responsibilities are delegated to such persons for their areas.

I. To ensure adherence in all respects to the Health and Safety Policy of the University of Oxford and in particular to ensure that the Departmental Safety Advisory Committee is advised of resources necessary for implementation.

II. To plan, organise, control, monitor and review the arrangements for health
    a. and safety including the arrangements for any visitors.

III. To carry out general risk assessments and specific risk assessments as required by health and safety legislation.

IV. To ensure that all work procedures under their control are safe and without risks to health.

V. To ensure that training and instruction have been given in all relevant procedures including emergency procedures.

VI. To inform the Director of the Department of Computer Science, before any significant hazards are introduced or when significant hazards are identified.

VII. To report immediately to the Administrator of the Department of Computer Science, all cases of ill health, accidents, hazardous incidents and fires, and to

ensure that any serious or potentially serious accidents, incidents or fires are reported immediately to the University Safety Officer.

In all areas of the Department of Computer Science, the Administrator of the Department of Computer Science, (or Deputy) has overall executive authority for safety. All those with executive responsibility should notify me and the Departmental Safety Officer, of any planned, new or newly identified significant hazards in their areas and also of those control measures needed to avert any risks involved. As it is my duty to ensure adherence to the University Health and Safety Policy, I instruct every employee with a supervisory role and the Departmental Safety Officer, to report to me any breach of the Policy. Where supervisors or others in charge of areas or with specific duties are to be absent, Health and Safety responsibility is delegated to the senior member of academic staff available. The following employees have executive responsibility throughout the Department to ensure compliance with the University Policy as it applies to their special function:

VISITORS and CONTRACTORS

The Building & Facilities Manager (Joe Atherton) is responsible for making arrangements for visitors (including contractors). This will involve carrying out suitable risk assessments as appropriate.

ELECTRICITY

Work on the electrical distribution network can only be carried out on the authority of the University Electrical Engineer (see University Guidance Note S1/90 and Standing Orders). Requests for modifications should be made via the Administrator, who will make the necessary arrangements with the Surveyor's Office. See also section 2 for details of the Departmental Electrical Safety Supervisor.

COMPUTER SYSTEMS

The installation or hardware modification of computers and peripheral equipment may only be carried out by a qualified technician, Research Support Officer or an authorised Service Engineer. Requests for such work should be made to the Computer Manager.

SOLVENTS

The person responsible for ensuring compliance with storage regulations of flammable and highly flammable liquids is the Administrator. Any requirement to introduce solvents to the Department of Computer Science must be discussed and approved before their introduction.

ABRASIVE WHEELS

No member of the department is permitted to change and dress abrasive wheels.

ADVISORY RESPONSIBILITY FOR SAFETY

I have appointed those listed below to advise me on matters of health and safety within the Department. If their advice is not taken by any member of the Department, I must be informed. Exceptionally, if they discover danger which requires immediate action, they are authorised to take the necessary action and inform me subsequently.

DEPARTMENTAL SAFETY OFFICER (DSO)

The Departmental Safety Officer is responsible for advising me on the measures needed to carry out the work of the Department without risks to health and safety; co-ordinating any safety advice given in the Department by specialist advisors and the University Safety Officer; monitoring health and safety within the Department and reporting any breaches of the Health and Safety Policy to me. To assist in this work, the Department has the following specialist advisors:

DEPARTMENTAL FIRE OFFICER

The Departmental Fire Officer is responsible for advice to the DSO on all matters relating to fire precautions and prevention to ensure compliance with the University Health and Safety Policy.

DEPARTMENTAL ELECTRICAL SAFETY SUPERVISOR

The senior technician, is responsible for advice to the DSO on all matters relating to electrical safety to ensure compliance with University Health and Safety Policy and in particular for the implementation of University Guidance Note S1/90.

DEPARTMENTAL SAFETY ADVISORY COMMITTEE

In addition to the above arrangements I have set up a Departmental Safety Advisory Committee. The members are:

Departmental Safety Officer (Chairperson)
Department of Computer Science Administrator
Departmental Fire Officer
Electrical Safety Supervisor
Academic Staff representative
Graduate Student representative
OeRC representitve
SEP representative
The purpose of the Committee is to advise the Head of Department on all matters relating to health and safety within the Department of Computer Science. It will meet once a term.

TRADES UNIONS AND APPOINTED SAFETY REPRESENTATIVES

Employees in this Department who wish to consult their safety representatives should initially contact the senior safety representative of the appropriate trade union as listed in University Guidance Note S4/90, Appendix A. If you are unable to contact this person you should try to contact the nearest representative who will advise you further.

OTHER FUNCTIONS

First Aid

The following persons are responsible for first aid:
Wolfson Building

Name	Room No.	Tel. No.
Andrew Simpson	008	83514
Douglas Russell	012	83519
Mark Slaymaker	012	83528
Emmanuel Apostolidis	142	73849
John Peachey	140	83561
Milo Thurston	164	10679
Jamie Vicary	213	10775
Alex Merry	214	83574
Jonathan Whiteley	365	73858
Gavin Lowe	343	73841
Philip Gemmell	369	10751
Dan Olteanu	409	10678
Stephen Cameron	424	73850
Lu Feng	452	10715
Jeremy Gibbons	462	83508

Thom Building: See the Engineering Science First Aiders list.
First Aid Boxes are located with each of the above qualified first aiders.

Display Screen Equipment Assessors

The following have undertaken training to be display screen equipment assessors:

Emanuel Apostolidid	142	73849
Shoshannah Holdom	107	73863

Sharon Lloyd 115 83668

INDIVIDUAL RESPONSIBILITY

All Departmental employees, students and all other persons entering onto the Department's premises or who are involved in Departmental activities are responsible for exercising care in relation to themselves and others who may be affected by their actions. Those in immediate charge of visitors (including contractors) should ensure that the visitors adhere to the requirements of the University Health and Safety Policy as appropriate.

You must:

a) Make sure that your work is carried out in the approved way and in accordance with University Policy.

b) Protect yourself and others by wearing the personal protective equipment provided, and by using any guards or safety devices provided.

c) Obey all instruction emanating from the Head of Department in respect of health and safety.

d) Warn me [and/or the DSO] of any significant new hazards to be introduced or newly identified significant risks found in present procedures.

e) Give your visitors (including contractors) a named contact within the Department with whom to liaise.

f) Offer any advice and suggestions that you think may improve health and safety.

g) Report all fires, incidents and accidents immediately to the Administrator or Assistant Administrator.

h) Familiarise yourself with the location of fire fighting equipment, alarm points and escape routes, together with the fire procedures.

i) If you are in doubt about any matter of health and safety consult your supervisor, the DSO or, if necessary, the Head of Department.

Note: The University Guidance Notes can be found in the library (Room 240) and in the Common Room (Room 104) and are available for your consultation. The University Safety Office has a small safety library that may be consulted during normal office hours (telephone extension 70811).

SPECIFIC ARRANGEMENTS

Mechanical Workshop
Only the following persons are authorised to enter the workshop (Room 016):
S. Lloyd, J. Atherton, and P. Turner.

Lift
Under University rules no-one in the department is authorised to release anyone trapped in a lift. In the case of an emergency contact the University Security Services (Tel. 89999) using the telephone located in the lift and a lift engineer will be contacted to attend the site.

Please note that out of normal working hours there may be an extended delay if no engineer is available in Oxford.

University Security Services
The emergency telephone number for the University Security Services is 89999 and is manned 24 hours per day.

Adjacent Building Site
No member of staff or student may venture on to the building site without the express permission of the Site Manager.

Signed: ..... 15th February 2007

Professor A W Roscoe,
Head of the Department of Computer Science.

Annex A

It is my responsibility, as Director of the Department of Computer Science, directly, or through delegation (which is detailed and in writing), in accordance with the law:

- To ensure adherence in all respects to the Health and Safety Policy of the University of Oxford and in particular to ensure that the necessary resources for implementation are available.
- To plan, organise, control, monitor and review the arrangements for health and safety including the arrangements for any visitors (including contractors).
- To carry out general risk assessments and specific risk assessments as required by health and safety legislation.
- To ensure that all work procedures under my control are safe and without risks to health.
- To ensure that training and instruction have been given in all relevant procedures including emergency procedures.
- To inform the University Safety Officer before any significant hazards are introduced or when significant hazards are identified.
- To investigate and keep a record of all cases of ill health, accidents, hazardous incidents and fires, and to report immediately to the University Safety Officer any serious or potentially serious accidents, incidents or fires.

Annex B

Officers Referred to In the Health and Safety Policy Document

Title	**Name**	**Room No.**	**Tel. No.**
Head of Department	Prof. A.W Roscoe	256	73859
Department Administrator	Sharon Lloyd	115	83668
Director of the SEP	Prof J Davies	461	73835
Departmental Safety Officer	Hanno Nickau	428	83588
Safety Committee Secretary	Jo Leggett	106	83601
Departmental Fire Officer	Jo Leggett	106	83601
Electrical Safety Supervisor	Terry Brown	140	73881
Graduate Student representative	Hugo Nava Kopp	204	10780

Unite Union Representative	contact:	nite@ox.ac.uk
Unison Union Representative	contact:	unison@ox.ac.uk
UCU Union Representative	contact:	ucu@.ox.ac.uk

B. Staff List

Director of Oxford University Department of Computer Science

Bill Roscoe	256	73859	bill.roscoe@cs.ox.ac.uk

Lecturers, Academic Staff and Supervisors of the Department of Computer Science

Name	Room	Telephone[1]	email address
Samson Abramsky	254	83558	samson.abramsky@cs.ox.ac.uk
Michael Benedikt	355	83503	michael.benedikt@cs.ox.ac.uk
Phil Blunsom	408	73897	phil.blunsom@cs.ox.ac.uk
Kevin Burrage	313	83568	kevin.burrage@cs.ox.ac.uk
Ani Calinescu	317	83527	ani.calinescu@cs.ox.ac.uk
Stephen Cameron	351	73850	stephen.cameron@cs.ox.ac.uk
Alessandra Cavarra	466	83666	alexandro.cavarra@cs.ox.ac.uk
Sadie Creese	402	73616	Sadie.creese@cs.ox.ac.uk
Bob Coecke	210	73829	Bob.coecke@cs.ox.ac.uk
Bernardo Cuenca Grau	306	83529	berg@cs.ox.ac.uk
Jim Davies	461	73835	jim.davies@cs.ox.ac.uk
Oege de Moor	005	73878	oege.de.moor@cs.ox.ac.uk
Andreas Doering	208	73885	andreas.doering@cs.ox.ac.uk
Ivan Flechais	468	83502	ivan.flechais@cs.ox.ac.uk
David Gavaghan	362	10667	david.gavaghan@cs.ox.ac.uk
Jeremy Gibbons	448	83508	jeremy.gibbons@cs.ox.ac.uk
Georg Gottlob	358	83504	georg.gottlob@cs.ox.ac.uk
Michael Goldsmith	427	10813	Michael.goldsmith@cs.ox.ac.uk
Jotun Hein			hein@stats.ox.ac.uk
Ralf Hinze	467	10700	ralf.hinze@cs.ox.ac.uk
Ian Horrocks	304	73939	ian.horrocks@cs.ox.ac.uk
Peter Jeavons	354	73853	pete.jeavons@cs.ox.ac.uk
Marina Jirotka	268	10613	marina.jirotka@cs.ox.ac.uk
Geraint Jones	350	73851	geraint.jones@cs.ox.ac.uk
David Kay	323	10814	david.kay@cs.ox.ac.uk
Andrew Ker	348	83530	andrew.ker@cs.ox.ac.uk
Daniel Kroening	449	83506	daniel.kroening@cs.ox.ac.uk
Marta Kwiatkowska	453	83509	marta.kwiatkowska@cs.ox.ac.uk
Gavin Lowe	343	73841	gavin.lowe@cs.ox.ac.uk
Thomas Lukasiewicz	156	73847	thomas.lukasiewicz@cs.ox.ac.uk
Andrew Martin	460	83605	andrew.martin@cs.ox.ac.uk
Steve McKeever	464	83552	steve.mckeever@cs.ox.ac.uk
Tom Melham	418	73824	tom.melham@cs.ox.ac.uk
Boris Motik	308	83544	boris.motik@cs.ox.ac.uk
Hanno Nickau	428	83588	hanno.nickau@cs.ox.ac.uk
Dan Olteanu	449	10678	dan.olteanu@cs.ox.ac.uk
Luke Ong	349	83522	luke.ong@cs.ox.ac.uk
Joel Ouaknine	409	73822	joel.ouaknine@cs.ox.ac.uk
Vasile Palade	322	83606	vasile.palade@cs.ox.ac.uk
Dave Parker	450	83566	dave.parker@cs.ox.ac.uk
Joe Pitt-Francis	329	83511	joe.pitt-francis@cs.ox.ac.uk
Stephen Pulman	405	10800	stephen.pulman@cs.ox.ac.uk
Mehrnoosh Sadrzadeh	217	73825	mehrnoosh.sadrzadeh@cs.ox.ac.uk
Andrew Simpson	008	83514	andrew.simpson@cs.ox.ac.uk
Mike Spivey	314	73854	mike.spivey@cs.ox.ac.uk

[1] These are internal telephone numbers. If you are dialling from an outside telephone, dial 2 before the number listed.

Niki Trigoni	469	10861	niki.trigoni@cs.ox.ac.uk
Nikos Tzevelekos	251	83565	nikos.tzevelekos@cs.ox.ac.uk
Irina Voiculescu	425	83501	irina.voiculescu@cs.ox.ac.uk
Michael Wooldridge			
James Worrell	416	73843	james.worrell@cs.ox.ac.uk
Hongseok Yang	218	10783	hongseok.yang@cs.ox.ac.uk

Support Staff

Name	Room	Tel	Email (@cs.ox.ac.uk)	
Wendy Adams	112	83559	wendy.adams	PGT Course an School Events Administrator
Emmanuel Apostolidis	142	73849	emmanuel.apostolidis	Computing Officer
Joe Atherton	108	73888	joe.atherton	Building Facilities Manager
Barbara Beattie	022	73845	barbara.beattie	Auxiliary
Terry Brown	140	73881	terry.brown	Computing Officer
Nycole Cain	104	73820	nycole.cain	Personnel Officer
Leanne Carveth	104	73833	leanne.carveth	Deputy Academic Administrator
Ian Collier	142	83589	ian.collier	Computing Officer
Edward Crichton	140	73839	edward.crichton	Web Developer
Brenda Deeley	106	83585	brenda.deeley	Administrative Staff Secretary
Katie Dicks	115	73898	katie.dicks	Finance Officer
Robert Fink	412		Robert.fink	Teaching Assistant
Liz Gresham	215	83586	liz.gresham	Project Administrator
Casey Hambidge	113	73611	casey.hambidge	Finance Assistant
Steve Hill	002	73867	steve.hill	Facilities Technician
Shoshannah Holdom	107	73863	shoshannah.holdom	Academic Administrator
Colin James	022	73845	colin.james	Technician
Jackie Jordan	471	83521	jackie.jordan	SEP Manager
Justin King-Lacroix	474	10716	Justin.king-lacroix	Teaching Assistant
Jo Leggett	106	83601	jo.leggett	Academic Administration
Sharon Lloyd	116	83668	sharon.lloyd	Administrator
Suzanna Marsh	244	73821	suzanna.marsh	Publicity & Schools Liaison Officer
Michael Neville	240	73837	michael.neville	Librarian
John Peachey	140	83561	john.peachey	Computing Officer
Kello Ryan	253	83555	Kelly Ryan	Research Facilitator
Shirley Sardar	471	83525	shirley.sardar	Administrative Officer
Julie Sheppard	112	73817	julie.sheppard	Graduate Studies Administrator
Aza Stephenson	240	73837	aza.stephenson	Library Assistant
Ashish Thandavan	142	10733	ashish.thandavan	Computing Officer
Craig Tranfield	148	83567	craig.tranfield	Computer Operations Manager
Peter Turner	022	73845	peter.turner	Technician
Elizabeth Walsh	253	83503	elizabeth.walsh	PA to Head of Department
Maureen York	104	83569	Maureen.york	Projects Manager
Graduate Rep 2012/13				
Hugo Nava Kopp	204	10780	joskop@cs.ox.ac.uk	

C. Departmental Research Groups

Computing Science

Please see http://www.cs.ox.ac.uk/research/

D. Application for Computer Resources on Department of Computer Science Facilities

The Department network connects dozens of, real and virtual, servers, several hundred workstations (mostly Linux but also Windows), and many other machines. Facilities elsewhere are accessed via fast connections to the Internet. Details of the facilities available on the network may be obtained from any of the Department's Computing Officers or on the web at

https://wiki.comlab.ox.ac.uk/wiki/support

The University has formal regulations and a code of conduct which govern the use and misuse of Computers and Networks. In addition to this, members of the Department of Computer Science are expected as a matter of honour to respect the privacy of other users of the networks to which they have access, and to refrain from actions which will cause others' work to be damaged or delayed. Any member of the Department seeking to explore the letter, rather than the spirit, of the University regulations would be well advised to consult the Director of Graduate Studies beforehand.

For an account on the Department's own network you should complete the Application for Computer Resources form included in your induction pack, and bring it to the first practical class. If this is not possible, please consult the support team (user accounts), Room 142, 83589. If you experience difficulties in using any of the machines or networks, please send electronic mail to support@cs The following notes are to help you to complete your Application for Computer Resources.

The Data Protection Act

The Data Protection Act 1998 defines “personal data” as data which “relate to a living individual who can be identified- (a) from those data, or (b) from those data and other information which is in the possession of, or is likely to come into the possession of, the data controller, and includes any expression of opinion about the individual and any indication of the intentions of the data controller or any other person in respect of the individual;”

The University has issued a statement on its Data Protection Policy, and you are requested to read and take note of this; a copy is appended. By signing the application form you are agreeing that you will not misuse personal data. If you are in any doubt about this, or other aspects of data protection, you should contact the support staff.

Other Notes

These notes are to help you to interpret the Application for Computer Resources form. If you need any additional help or information, please contact the support staff at the Department of Computer Science, Wolfson Building, Parks Road, support@cs.ox.ac.uk

Nobody may use the resources of the Department of Computer Science without signing an application form, nor continue to do so once their account has expired.

Queries about the conditions imposed by particular software licence agreements should be addressed to the support staff.

Heads of University departments issue rules and regulations which apply to all whose use facilities in their departments. The use of Department of Computer Science facilities based in the Thom Building is governed by the rules of the Department of Engineering Science (as they apply to the Thom Building) and by the rules of the Department of Computer Science (as they apply to use of practical facilities). You must comply with any such rules which are brought to your attention. The University has issued a policy on data protection and computer misuse which you should read and take note of, copy attached. By signing the application form you are agreeing that you will not misuse any of the resources.

Referenced documents are available at or based upon:

www.ict.ox.ac.uk/oxford/rules/
www.legistation.gov.uk/

Returning the application form

Please bring the completed form to Introduction to Computing facilities talk, or one of the practical classes, arranged for your course during first week where you will be asked to hand it to one of the Departmental Lecturers in exchange for an envelope containing details of your username and password.

Declaration

This is a copy of the declaration which each student who requires computing facilities is asked by the Department of Computer Science to sign

> I accept that all software systems and software packages used by me are to be regarded as covered by software licence agreement, with which I agree to abide, which unless specifically stating otherwise will prohibit me from making copies of the software or transferring copies of the software to anyone else, other than for security purposes, or from using the software or any of its components as the basis of a commercial product or in any other way for commercial gain. I indemnify the Chancellor, Masters and Scholars of the University of Oxford, and the Department of Computer Science, University of Oxford, for any liability resulting from my breach of any such software licence agreement.
>
> I will not use personal data as defined by the Data Protection Act on computing facilities made available to me in respect of this application other than in the course of my work as per the University's registration. I accept that the Department of Computer Science, University of Oxford reserve the right to

examine material on or connected to any of their facilities when it becomes necessary for the proper conduct of those facilities or to meet legal requirements and to dispose of any material associated with this application for access to its resources upon termination or expiry of that authorisation.

I agree to abide by any code of conduct relating to the systems I use and the University policy on data protection and computer misuse. In particular, I will not (by any wilful or deliberate act) jeopardise or corrupt, or attempt to jeopardise or corrupt, the integrity of the computing equipment, its system programs or other stored information, nor act in any way which leads to or could be expected to lead to the disruption of the approved work of other authorised users.

E. Regulations Relating to the Use of Information Technology Facilities

ICTC Regulations 1 of 2002

REGULATIONS RELATING TO THE USE OF INFORMATION TECHNOLOGY FACILITIES

Made by the ICTC on 6 June 2002

Approved by Council on 24 July 2002

Amended 2nd October 2003, 23rd October 2003, 16th February, 2006 and 1st June, 2006 and 3 June 2011

See: http://www.admin.ox.ac.uk/statutes/regulations/196-052.shtml

Rules and Regulations Concerning use of Department Equipment

These are the formal conditions under which use may be made of DEPARTMENT OF COMPUTER SCIENCE equipment in the teaching network of the Department of Computer Science and on level 6 of the Engineering Thom building. Users *must* abide by the rules; anyone wishing to use the facilities of the Department of Computer Science must sign a declaration to do so.

See Appendix D.

Copies of the rules are displayed in Department of Computer Science buildings and in the Practicals Laboratory on level 6 of the Engineering Thom building.

Definitions:

In these rules, "users"' are students of the University who have been given accounts on the Department of Computer Science workstation network. The authorisation permits those involved to use the facilities of DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF OXFORD only for the subject of their course. Authorisation lapses on the completion of that course. A "remote terminal" is any device that may be used to make a connection with the network. Any reference to equipment is assumed to include any Department of Computer Science or Engineering equipment on level 6 of the Engineering Thom building. A "remote site" is any equipment, or building containing equipment, that is not covered by these rules. The `Director' is the Director of the Department of Computer Science, the Head of the Engineering Department or their agents.

1. The submission of a completed registration form to DEPARTMENT OF COMPUTER SCIENCE, UNIVERSITY OF OXFORD implies that the user has read, understood and has agreed to comply with these rules.

2. No work of direct commercial application may be carried out without the written authorisation of the Director who shall specify any conditions to be observed. In particular, a charge may be made for the use of some or all of the facilities (such as external mail) and restrictions may be made on the use of certain items of software.

3. The University will not be liable for any loss or damage sustained by any user in any involvement with DEPARTMENT OF COMPUTER SCIENCE.

4. It is the responsibility of a user to comply with the "*Data Protection Act 1988"*, and, in general, with all statutory and other provisions and regulations for the time being in force in the field of data protection and information privacy. Those whose work involves or may involve the storage of personal data as defined in the "*Data Protection Act 1988"* are required to notify the Department of Computer Science in advance.

5. Equipment in the Practicals Laboratory on level 6 of Engineering's Thom building is available to undergraduates 9am to 6pm, Monday to Friday of Full Term. It may also be used at other times as determined from time to time by the Director,

but at these times undergraduates may only use the facilities under supervision by an authorised graduate or member of the Department of Computer Science staff. Equipments available at all times from remote terminals (such as college PCs).

a. If at any time any student is requested by an authorised member of the Department of Computer Science staff or graduate supervisor to leave the Practicals Laboratory, he or she must do so immediately.

6. The periods that the Department of Computer Science equipment is available may vary from time to time at the discretion of the Director. In particular, users should note that at certain times, certain equipment is booked for practicals and the like. At these times, such equipment may not be used by other users.

a. Users must comply with local rules of any building they use or that contains equipment that they use. In particular, users accessing the network through remote terminals must comply with the rules of the Computing Service and users accessing remote sites must comply with the rules of the site that they are connected to as well as the Computing Service rules.

7. Children under the age of 12 years and animals are not allowed in the Software Laboratory without prior written permission of the Director.

8. Meetings of any kind, other than authorised classes and practicals, may not be held in the Software Laboratory without the written permission of the Director, who shall specify any conditions to be observed.

9. Notices or posters may only be displayed if they are clearly marked with the name of the person posting and are placed on an appropriate board according to content. The Director reserves the right to remove any notice or poster without advance warning.

10. In the interests of safety and to prevent damage to the equipment, eating and drinking are prohibited in all equipment areas. Smoking is also prohibited on all University premises.

11. Fire alarms and fire extinguishers may only be used in case of emergency. Any tampering with fire alarms, fire extinguishers, locks, key boxes or cabinets will be regarded as an offence against the rules.

12. Students are not permitted to use departmental telephone extensions for external calls on the British Telecom network except with permission or in case of emergency. There is a pay phone in the reception area of the Thom building.

13. No person may make use of DEPARTMENT OF COMPUTER SCIENCE facilities other than for an authorised academic purpose unless written permission is obtained from the Director.

14. No person may, by any wilful or deliberate act, jeopardise or corrupt, or attempt to jeopardise or corrupt, the integrity of the computing equipment, its system programs or other stored information. In particular, no user may:

a) subscribe to any external mailing lists, info-servers, list-servers or the like or request or receive mail from such without the written permission of the Director;

b) attempt to store files in any manner whatsoever that could be considered an attempt to evade file quotas;
c) allow their password to become known to any other person (if a user suspects that some other person may know their password, they should change it immediately);

d) log in, or attempt to log in, to any computer as another user;

e) take on, or to appear to take on, the identity of another user or for their username to appear changed according to any process or piece of software;

f) send unwarranted unsolicited e-mail to others;

g) post inappropriate messages to newsgroups;

h) knowingly send, or facilitate the sending of, offensive material or knowingly download or store or facilitate the downloading or storing of offensive material;

i) send or propagate chain e-mail.

No person may act in any way which leads to, or could be expected to lead to, the disruption of the approved work of any other user.

The Director may suspend any person who is believed to be in breach of these rules from use of all or specified DEPARTMENT OF COMPUTER SCIENCE facilities. The Director may also make subsequent use of the equipment and/or facilities subject to such conditions as he thinks fit. The Director may, at his discretion, report the matter to the University Proctors with recommendations for further action. If a suspension of greater than two weeks is imposed, the matter shall be reported to the University Proctors.

In the case of the user being a member of a University other than Oxford, or of some other such institution, the matter will be reported to the Director of computing facilities at that University or institution.

Failure to discharge a debt to DEPARTMENT OF COMPUTER SCIENCE shall be a cause for suspension from use of the facilities.

The Director may make such general conditions on the use of Department of Computer Science equipment as he thinks fit from time to time.

Appeal against the actions of the Director under rules 16, 17 and 18 shall be made to the University Proctors.

F. University of Oxford - Code of Practice Relating to Harassment

The University Policy and Procedure on Harassment and Bullying can be found at:

http://www.admin.ox.ac.uk/eop/harassmentadvice/policyandprocedure/

Guidance on taking action if you believe you have been harassed

Informal or formal resolution?

If possible, you should attempt to resolve the matter informally; it may be that the alleged harasser does not know what effect his or her behaviour is having on you. If an informal resolution can be effectively achieved, this will in many cases be advantageous to you. It is however recognised that, in some cases, only a formal procedure would be appropriate.

Regardless of whether you succeed in resolving the matter informally, or decide to bring a formal complaint, try to keep a factual record of the offending behaviour. It is easy to forget details after the event and such a record will help you when seeking advice, in deciding whether to make a complaint, in formulating the complaint and in giving evidence at any subsequent hearing.

The harassment adviser will discuss with you what steps you can take to try to reach an informal resolution. The first step may be to speak with the alleged harasser and let him or her know that you object to his or her behaviour, explain why you object and ask that they stop. You should keep a factual record of what is said and done and of any witnesses present. Alternatively, or as a second step, you could put your objections and a request to stop in a letter addressed to the alleged harasser. Again, keep a copy. It is not advisable to communicate with the alleged harasser by email as these are easily copied and all too quickly sent without proper consideration of the wording.

The harassment adviser cannot tell you what you should say, or write a letter for you, but he or she can guide you, discuss the steps to take and review the outcomes with you.

If the behaviour continues regardless of your requests to stop, or, if attempting an informal resolution is not appropriate in the first place, the next stage will be to make a formal complaint.

The Harassment Advisors for the Department of Computer Science are:

Shoshannah Holdom - Tel. 73863
&
Luke Ong - Tel. 83522

And you should contact them in the first instance.

G. Rules and Regulations Concerning Use of Department of Engineering Science Premises

In addition to the rules of the University and of the Department of Computer Science, students using the facilities in the Thom Building should be aware of, and comply with, the following extracts from the Rules of the Department of Engineering Science:

Normal working hours of the department are:

Monday to Thursday;	08.15 -- 13.00 and 14.00 -- 17.15
Friday	08.15 -- 13.00 and 14.00 -- 16.45.

Except by permission of the staff member responsible, junior members may not remove tools or equipment from any part of the buildings.

Except by permission of the member of staff responsible, junior members of the department are not permitted to enter research laboratories, staff offices, stores, workshops (other than the staff/student workshop), roof areas, service areas, photographic darkrooms, the enquiry office and rooms carrying notices of special hazards. Except in the case of fire, junior members must not use the walk way round the outside of the Thom Building at 7th floor level.

Permission must be obtained from the Head of Department before photographs or articles concerning the work of the department are communicated to the press.

Junior members of the department are not allowed to bring cars into the departmental car parks.

Motor cycles should be parked in the spaces provided and pedal cycles should be left in the racks, including those adjacent to the Department of Metallurgy and Science of Materials.

Those entrusted with a key to any departmental building are responsible for ensuring that the building is properly locked if they leave outside normal working hours. The loss of a key must be reported immediately. The copying of keys is forbidden.

H. University Policy on Intellectual Property Rights

Please see: http://www.admin.ox.ac.uk/researchsupport/ip/

I. Equal Opportunities

EQUAL OPPORTUNITIES STATEMENT: STUDENTS

Please see:
http://www.admin.ox.ac.uk/eop/missionstatement/integratedequalitypolicy/

Departmental Disability Co-ordinator

Shoshannah Holdom - tel. 73863, email: shoshannah.holdom@cs.ox.ac.uk

J. Notes of Guidance for MSc in Computer Science Students and their Supervisors

Responsibilities of the supervisor:

In agreeing to supervise an MSc student, the supervisor must recognise and accept the responsibilities both to the student and to the divisional board.

Supervisors should meet with their new students ideally in 0th week but no later than the end of week 1.

The supervisor is responsible for assisting the student in the selection of options and ensuring that the student has the correct background for particular courses. There must be no overlap with courses already completed either at Oxford or elsewhere. Students have to submit a form by Monday of week 3 committing themselves to courses they will definitely follow. This has to be countersigned by the supervisor. The supervisor is also responsible for advising the student about attendance at classes and requisite techniques (including helping to arrange special instruction where necessary).

The supervisor should meet with the student regularly i.e. a minimum of half an hour per fortnight. Times should be fixed to ensure that a busy supervisor does not inadvertently find that meetings are less frequent than the student would like, and to give sufficient time for the student to discuss the work and for the supervisor to check that certain things have been done. Informal day-to-day contact should not be seen as a substitute for formal scheduled meetings. The supervisor should also be accessible to the student at other appropriate times when advice is needed.

During meetings the supervisor should ask to see the student's class work and practical work and ensure that they understand the demonstrator's notes. If a student exhibits a consistent weakness and misunderstanding, supervisors should inform the Academic Administrator and the Director of the MSc as soon as possible so that the arrangement of extra special supervision can be authorised.

The supervisor should tell the student from time to time how well, in the supervisor's opinion, the work is progressing, and try to ensure that the student feels properly directed and able to communicate with the supervisor. It is essential that when problems arise, corrective action is clearly identified and full guidance and assistance are given to the student.

If the supervisor is unable to see a student due to unforeseen circumstances they should inform the Academic Administrator so that alternative arrangements can be made.

If a student regularly fails to keep appointments the supervisor should inform the Academic Administrator who will inform the Tutor for Graduates at the student's college and the Director of the MSc. This applies especially to project supervisions.

The supervisor is required to report on the student's work at the end of each term. Each report should state the nature and extent of recent contact with the student. The report should also make clear whether the student is making satisfactory progress. Report forms should be completed in a timely manner i.e. returned to the University offices before the beginning of the following term.

Responsibilities of the student

The student must accept his or her obligation to act as a responsible member of the University's academic community.

The student should take ultimate responsibility for his or her studies and develop an appropriate working pattern, including an agreed and professional relationship with the supervisor. The student should discuss with the supervisor the type of guidance and comment which he or she finds most helpful and agree a schedule of meetings.

The student should make appropriate use of the teaching and learning facilities available within the University.

It is the student's responsibility to seek out and follow the regulations relevant to his or her course, including faculty/departmental handbooks/notes of guidance, and to seek clarification from supervisors and elsewhere if this is necessary.

The student should not hesitate to take the initiative in raising problems or difficulties, however elementary they may seem. He or she should ensure that any problems regarding the project are drawn to the attention of the supervisor so that appropriate guidance may be offered.

If the student feels there are good grounds for contemplating a change of supervision arrangements, this should first be discussed with the supervisor or, if this is difficult, with the advisor, the Academic Administrator or the Director of the MSc course.

The student should seek to maintain progress in accordance with the plan of work agreed with the supervisor. Both the student and the supervisor should keep a record of all formal, scheduled meetings. They may wish to agree a record of what has been discussed and decided.

The student should recognise that the supervisor may have many competing demands on his or her time. The student should give adequate notice of unscheduled meetings. The need for adequate notice also applies to requests for meetings from the supervisor.

The student should be aware that the provision of constructive criticism is central to a satisfactory supervisory relationship, and should always seek a full assessment of the strengths and weaknesses of his or her work.

Where problems arise it is essential that a student gives full weight to any guidance and corrective action proposed by the supervisor.

Students should ensure that they allow adequate time for writing up their dissertation and should not take up employment before the submission deadline. Particular attention should be paid to final proof reading.

Students should make full use of the facilities for career guidance and development and should consult their supervisor for advice where appropriate.

K. Plagiarism

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

http://www.admin.ox.ac.uk/ps/staff/codes/air.shtm

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 online plagiarism course as part of their graduate skills training portfolio:

http://onlinecourses.skillsportal.ox.ac.uk

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 handouts, theses 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.

Overseas students

Some students from overseas may face particular difficulties when embarking on study at Oxford, especially if they also have to overcome a language barrier. They may need help to improve their skills in academic English, or they may experience difficulties adapting to the requirements of Western academic culture. Time constraints mean this can be a particular problem for students on one-year Master's courses.

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

L. Complaints and academic appeals within the Department of Computer Science

The University, the Mathematical and Physical Sciences Division and the Department of Computer Science all hope that provision made for students at all stages of their programme of study will make the need for complaints (about that provision) or appeals (against the outcomes of any form of assessment) infrequent.

However, all those concerned believe that it is important for students to be clear about how to raise a concern or make a complaint, and how to appeal against the outcome of assessment. The following guidance attempts to provide such information.

Nothing in this guidance precludes an informal discussion with the person immediately responsible for the issue that you wish to complain about (and who may not be one of the individuals identified below). This is often the simplest way to achieve a satisfactory resolution.

Many sources of advice are available within colleges, within departments and from bodies like OUSU or the Counselling Service, which have extensive experience in advising students. You may wish to take advice from one of these sources before pursuing your complaint.

General areas of concern about provision affecting students as a whole should, of course, continue to be raised through Joint Consultative Committees or via student representation on the department's committees.

Complaints

If your concern or complaint relates to teaching or other provision made by the department, then you should raise it with the chairman of the Teaching Committee, Professor Ian Horrocks or with the Director of Graduate Studies, Professor C-H L Ong as appropriate. Within the department the officer concerned will attempt to resolve your concern/complaint informally.

If you are dissatisfied with the outcome, then you may take your concern further by making a formal complaint to the University Proctors. A complaint may cover aspects of teaching and learning (e.g., teaching facilities, supervision arrangements, etc.), and non-academic issues (e.g. support services, library services, university accommodation, university clubs and societies, etc.). A complaint to the Proctors should be made only if attempts at informal resolution have been unsuccessful. The procedures adopted by the Proctors for the consideration of complaints and appeals are described in the Proctors and Assessor's Memorandum [http://www.admin.ox.ac.uk/proctors/pam/] and the relevant Council regulations [http://www.admin.ox.ac.uk/statutes/regulations/]

If your concern or complaint relates to teaching or other provision made by your college, then you should raise it either with your tutor or with one of the college officers, Senior Tutor, Tutor for Graduates (as appropriate). Your college will also be able to explain

how to take your complaint further if you are dissatisfied with the outcome of its consideration.

Academic appeals

An appeal is defined as a formal questioning of a decision on an academic matter made by the responsible academic body.

For undergraduate or taught courses, a concern, which might lead to an appeal, should be raised with your college authorities and the individual responsible for overseeing your work. It must not be raised directly with examiners or assessors. If it is not possible to clear up your concern in this way, you may put your concern in writing and submit it to the Proctors via the Senior Tutor of your college. As notes above, the procedures adopted by the Proctors in relation to complaints and appeals are on the web [http://www.admin.ox.ac.uk/statutes/regulations/].

For the examination of research degrees, or in relation to transfer or confirmation of status, your concern should be raised initially with the Director of Graduate Studies. Where a concern is not satisfactorily settled by that means, then you, your supervisor, or your college authority may put your appeal directly to the Proctors.

Please remember in connection with all the cases in paragraphs 8 - 10 that:

> The Proctors are not empowered to challenge the academic judgement of examiners or academic bodies.
>
> The Proctors can consider whether the procedures for reaching an academic decision were properly followed; i.e. whether there was a significant procedural administrative error; whether there is evidence of bias or inadequate assessment; whether the examiners failed to take into account special factors affecting a candidate's performance.
>
> On no account should you contact your examiners or assessors directly.

The Proctors will indicate what further action you can take if you are dissatisfied with the outcome of a complaint or appeal considered by them.

This document can also be found on our web pages at: http://www.cs.ox.ac.uk/