

OXFORD UNIVERSITY COMPUTING LABORATORY

D.Phil. Programme Requirements at the Computing Laboratory

This article aims to provide you with as much as you need know, as a prospective research student, about the various stages of and requirements for a D.Phil. in the Computing Laboratory at Oxford, beginning with the research proposal you submit in your application. Much more detail is available in the *PRS Handbook*, which is given to all our beginning research students and is available on the Laboratory's website.

1. Provisional Supervisor

You will already have read that a *research proposal* must be included in your application (section M of the application form). The proposal is important, so you should spend some time on its preparation. Only from it can we 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 provision 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—two or three pages is typical, and it should not exceed five pages. The most important element will be a clear statement of a proposed research topic or at least a reasonably specific subject area that you wish to do research in. We use this to identify possible provisional supervisors. You might try to describe your interests as a *problem* worthy of academic research, even if you don't yet have many definite ideas for attacking the problem. You should also tell us why you think the topic is important, and give a little technical detail if possible. What we're looking for is evidence that you have a specific interest, and indications that you have some understanding of why it's suitable for doctoral research.

2. Offer

If you are made a provisional offer of a place to do a D.Phil., your letter of offer will normally state the name of your provisional supervisor and the conditions under which the offer is provisional. For home and EC students those usually include a level that must be attained in your current examination and evidence of sufficient funding. For those whose first language is not English, they also usually include an English language proficiency requirement.

Home and EC students who have been made provisional offers may compete—advocated by their provisional supervisors—for the government-funded places allocated to the Department. For other students, funding is usually dependent on their success in various scholarships (such as the Clarendon scholarships and ORS awards). In either case as, soon as a successful outcome is known, a letter of formal offer of a place is despatched.

3. Terms

The three university 'full' terms, called *Michaelmas*, *Hilary* and *Trinity*, 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 as a research student you will need to work in vacation as well as in term time (apart from reasonable breaks), when you are expected to remain in close contact with your supervisor. The terms in your first year will be particularly important as the vehicles for the courses you choose in order to complete the coursework component of your first year. In the Programming Research Group, four courses are taken; in the Numerical Analysis Group six special topics are taken; in both cases a directed reading project may be undertaken in place of a course. (In exceptional circumstances exemptions from coursework may be obtained.)

4. Advisor

Each D.Phil. student is also allocated an advisor—a member of staff of the Computing Laboratory to whom you may talk, as an alternative to your supervisor, about research or problems unrelated to work. Your advisor will probably be involved in monitoring your progress and will stand in if your supervisor is absent (for instance on sabbatical leave). Thus you should keep your advisor informed of your interests and progress. Nearly everyone finds that the process of explaining their work clarifies it, and your explanation will benefit by having to assume less background when explaining it to your advisor.

5. First Year

As a D.Phil. student you will begin as a Probationer Research Student (PRS). As your first year progresses, if both you and your provisional supervisor are content, the supervision arrangement will become permanent; otherwise it will be changed. It will also be changed if it becomes clear that your interests are converging on a research topic that can be supervised more appropriately by another member of staff. In some cases joint supervision is arranged.

Apart from directing your research, your supervisor will be responsible for suggesting which graduate-level courses and seminar series you should attend. There are a range of styles of interaction between supervisor and research student, but it is always important that you meet regularly.

Within one year as a Probationer Research Student, you must apply to transfer status to that of an advanced student, that is, a student for the degree of D.Phil. You apply for transfer to advanced status by preparing a qualifying dissertation and by being examined on it by two assessors. It is important to ensure that you plan and carry out your work in the first so that you will be ready to apply for transfer by the end of the year. If the assessors so recommend then you may be registered as a student for the degree of D.Phil. Alternatively they may recommend that you apply for transfer to the status of a student for the degree of M.Sc. by Research.

6. Second Year

It is usually during second year that the bulk of work for the thesis is done. During this time, as they become more confident technically, many D.Phil. students choose to do a small amount of paid tutoring or demonstrating on undergraduate or M.Sc. courses.

At the end of second year comes another milestone, called confirmation of status, which you have to have completed before you can submit your thesis.

The Department and the University take very seriously their duty to monitor the progress of research students. Indeed most funding bodies, including the Engineering and Physical Sciences Research Council, may discontinue a student's grant if the University does not provide a certificate of good progress each year. The University Regulations require that doctoral students have their status confirmed, usually during the third year of study, before being permitted to submit a thesis. Confirmation of status is conditional on the preparation of a satisfactory interim research report and involvement in graduate activities. The interim report does not have to be long. Its most important ingredients are a clear plan for any research investigations that remain to be done, a table of contents of your proposed D.Phil. dissertation, and a timetable for producing each chapter. Its purpose is to ensure that, after having achieved the main body of results in your second year, you have a clear idea of how they constitute a D.Phil. dissertation (as distinct from conference or journal articles).

7. Third Year

In their third year students often write technical reports and submit papers for publication in conference proceedings or journals. In many cases funds are available to support conference attendance for the purpose of presenting papers.

The final stage in a D.Phil. consists of submission of a dissertation and *viva voce* examination by two examiners, one from the Department and one from outside it. Oh, and then usually some celebration.