

UNIVERSITY OF OXFORD
Mathematical, Physical and Life Sciences Division
Oxford University Computing Laboratory
in association with Somerville College
UNIVERSITY LECTURESHIP IN COMPUTER SCIENCE

Applications are invited for a University Lectureship in Knowledge Representation and Reasoning. The successful candidate will also be appointed to a non-tutorial Fellowship at Somerville College. The University salary will be on a scale up to £54,207 per annum. Details of the Department and further details of the University post are given in Section II and details of the College and further details of the College post are given in Section III.

The lecturer will be a member of the Computing Laboratory, and will contribute to the activities of the Information Systems group under the guidance of Professor Ian Horrocks. The Department welcomes applications from any area of Information Systems, but particularly encourages those whose research interests are concerned with logic based knowledge representation and ontology languages, associated reasoning problems and techniques, and the implementation, optimisation and application of reasoning systems in ontology engineering and deployment. The appointee will also be expected to have the ability to teach effectively over a wide range of topics in the Computer Science syllabus at Oxford, not exclusively in the area of their research expertise.

Duties

- To engage in research of an international standard of excellence.
- To apply for research funding to support the research activities of the group.
- To participate in the teaching and administrative work of the Computing Laboratory in both term and vacation under the direction of the Director of the Computing Laboratory. The lecturer may be asked to lecture to undergraduates and graduate students, to give instruction in the practical laboratories, and to lead classes.
- To examine for the University when required to do so.
- To supervise, or assist in the supervision of graduate students as required.

The appointee will, in addition to these standard duties, be expected to undertake additional duties which are broadly equivalent to the teaching stint of six hours per week during full term undertaken by those University Lecturers who are Tutorial Fellows of colleges. These duties which may, for example, be undergraduate or graduate teaching, will be under the direction of the Director of the Computing Laboratory, who may in some cases assign some or all of them to Somerville or one or more colleges.

Selection Criteria

Applications are welcome from candidates working in any area of Information Systems, but particularly from those with research interests in logic based knowledge representation and ontology languages, associated reasoning problems and techniques, and the implementation, optimisation and application of reasoning systems in ontology engineering and deployment. The successful candidate will be expected to satisfy the following selection criteria:

- A doctorate in an appropriate field.
- Proven research ability of an international standard of excellence, as judged by, inter alia,
 - the number and quality of refereed publications;
 - post-doctoral research experience;

- any research grant awards;

Candidates must also possess

- an excellent standard and range of teaching skills;
- the ability to make an appropriate contribution to undergraduate and graduate teaching, including D.Phil. supervision;
- the ability to contribute to course development, including but not restricted to their area of specialisation.

Application Procedure

Applications should be in the form of a letter of application (clearly stating the post title) setting out how the candidate meets the selection criteria, and supported by a full curriculum vitae, a list of publications, details of teaching experience including a description of teaching approach, and a statement of research interests, together with the names and addresses of three referees (not more than two of whom should be from the same institution). These should be emailed (most formats accepted) to Job16@comlab.ox.ac.uk or posted to: PA to the Director, Oxford University Computing Laboratory, Wolfson Building, Parks Road, Oxford, OX1 3QD to arrive no later than Friday 25th July 2008.

Candidates must ask their referees to consider the further particulars and write directly to the above address (fax (+44 1865 273832) or email is sufficient) so that references arrive by the closing date.

It is hoped to hold interviews in the week beginning Monday 1st September 2008. Candidates short-listed for the post will be interviewed by the selection committee and will be invited to give a short lecture of about twenty-five minutes' duration on their research interests. The lecture should be designed for a general audience of computer scientists and should be based on some aspect of the candidate's own research.

All reasonable interview expenses will be reimbursed. The recommendations of the selection committee will be subject to ratification by the Divisional Board and the Governing Body of Somerville College. The appointment will be subject to satisfactory completion of a medical questionnaire and the provision of proof of the right to work in the UK.

UNIVERSITY OF OXFORD
UNIVERSITY LECTURERSHIP IN INFORMATION SYSTEMS
FURTHER DETAILS CONCERNING THE UNIVERSITY POST

A. The Department

The University of Oxford employs almost 9,000 academic, research and support staff across a wide range of academic disciplines. Its mission is to achieve and sustain excellence in every area of its teaching and research, maintaining and developing its historical position as a world-class university, and enriching the international, national, and regional communities through the fruits of its research and the skills of its graduates.

The academic administration of the University is conducted through four divisions (Humanities, Social Sciences, Mathematical, Physical and Life Sciences, and Medical Sciences). The Mathematical, Physical and Life Sciences Division consists of ten constituent departments: the Department of Chemistry, Computing Laboratory, the Department of Earth Sciences, the Department of Engineering Science, the Department of Materials, Mathematical Institute, the Department of Physics, the Department of Statistics, Department of Plant Sciences and the Department of Zoology. The division provides a framework for interdisciplinary teaching and research. There are also links with the Medical Sciences Division.

The lecturer will be a member of the Computing Laboratory, which is the University's Department of Computer Science, established in 1957. The Department is one of the UK's leading Computer Science Departments. It was rated 5* or 5A in recent RAEs, and its teaching quality has been assessed as excellent. Many members of the Department are active in externally sponsored research, with both government and industrial funding.

OUCLE has close links with government, industry, and other departments within the university. Among the latter are Mathematics, Engineering, Physics and a number of life sciences departments. It has a major role in the rapidly-developing field of e-Science, an essentially inter-disciplinary activity which is at present attracting major funding from a number of sources.

At present, research in OUCLE is managed in five groups but this will be changing to seven from the beginning of the new academic year with some realignment and rearrangement of the present groups and new groups, including *Information Systems*, being defined. Currently, *Applications and Algorithms* is led by Professor Peter Jeavons and includes groups working on database theory (led by Professor Georg Gottlob), knowledge representation and reasoning (led by Professor Ian Horrocks), computational biology (including Professor David Gavaghan and Professor Jeavons), machine learning and AI, robotics and computer graphics. The *Programming and Tools* group is led by Professor Richard Bird and includes work on functional programming, aspect-oriented programming (Professor Oege de Moor), compilers and non-standard programming models. The Theory and Automated Verification group is led by Professor Samson Abramsky FRS and includes groups working on foundations (including Abramsky and Professor Luke Ong), concurrency and security (including Professor Bill Roscoe and Dr Gavin Lowe), probabilistic and software model checking (including Professor Marta Kwiatkowska, Dr Joel Ouaknine and Dr James Worrell), and automated verification of hardware (Professor Tom Melham). The *Software Engineering Group* is led by Professor Jim Davies and, together with Computational Biology, provides the main focus of OUCLE's work on e-Science. *Numerical Analysis* is led by Professor Nick Trefethen and includes Professors Endre Suli and Mike Giles.

Further details of the Laboratory, its research and its courses are to be found on its web-site: <http://www.comlab.ox.ac.uk>

B. Standard Terms and Conditions

1. Applications for this post will be considered by a selection committee containing representatives from the Computing Laboratory and Somerville College. The selection committee is responsible for conducting all aspects of the recruitment and selection process including making a recommendation to the Mathematics, Physical and Life Sciences Divisional Board and the Governing Body of Somerville College on who should be appointed to the post. The Divisional Board and the Governing Body of Somerville College make the final decision on the appointment. Therefore, an offer of appointment is only valid once the Divisional Board and the Governing Body have approved the recommendation of the selection committee and a formal contractual offer has been made.
2. The successful candidate will be appointed on the Oxford scale for university lecturers without tutorial fellowships (£40,334- £54,207). Lecturers appointed below the top of this range will receive annual increments until they reach the top point. There is also an annual 'cost-of-living' review. Departments may also, in wholly exceptional cases, propose the awarding within the substantive scale of additional increments to lecturers at any time during their appointment.

The lecturer will have the option of becoming or remaining a member of the Universities Superannuation Scheme (USS). From 1 June 2008, the University is introducing a salary exchange scheme for pension contributions (Salary Exchange) for members of the USS.

Salary Exchange involves a change to the way in which pension contributions are made, with employee pension contributions reduced to nil and the University increasing its pension contributions accordingly. The overall pension contribution for each individual employee (and associated pension benefits) will remain unchanged. However, reducing basic salary (and all other elements of pensionable pay) will mean that employees and the University will make lower National Insurance contributions.

From 1 June 2008 all new employees who become members of USS will be enrolled automatically into Salary Exchange three months after the date of joining the relevant pension scheme, unless they request to opt out.

3. Additional remuneration is currently paid to those undertaking examining and graduate supervision. Additional payments are also available for some tutorial teaching. Those holding administrative appointments within the department may be eligible for additional payments.
4. Upon completion of an initial period of appointment (which is normally five years), a university lecturer is eligible for reappointment until retiring age, subject to the provisions of the Statutes and Regulations of the University. Evidence of lecturing competence and of substantial progress in research are prerequisites for reappointment to the retiring age.

The University's normal retirement date for university lecturers is 30 September immediately preceding the 66th birthday, except that, if the successful candidate can establish vested rights, as defined in the University's statutes (details available on request), in retirement at age 67 or later, then the date of retirement will not normally be later than the 30 September immediately preceding the 68th birthday.

5. All appointments are subject to the relevant provisions of the Statutes and Regulations of the University in force from time to time, as published from time to time in the University Gazette.

All university lecturers, with other members of the academic staff and certain senior academic-related staff, are normally members of Congregation, which is the University's ultimate governing body. Congregation's approval is required for all university statutes or amendments to statutes, and for major policy decisions, and the members of Congregation constitute the electorate for ten of the members of the main executive body (the Council of the University) and for members of a number of other university committees. Twenty or more members of Congregation may initiate the discussion by Congregation of matters of university policy, and any two members may ask questions about the policy or administration of

the University. The person appointed to this post will receive fuller details soon after he or she takes up the appointment.

6. The holder of this post is eligible to apply for sabbatical leave. In general, one term of sabbatical leave is available for each six terms of qualifying service: qualifying service is built up on a 'rolling' basis, so that leave which is not taken is not lost (although qualifying service does not accrue beyond the maximum of 18 terms). Further details are available on request.
7. The University encourages links with industry and other outside bodies. Although the holding of outside appointments such as consultancies must be approved by the head of department, no limit as such is set on the amount of money individuals may receive in this way. The criterion is the amount of time such appointments take up: a maximum of 30 days per annum may be spent on such activities before any deduction in stipend is considered.
8. The Statutes and Regulations of the University record the extent of the University's claims to intellectual property, and the proportions in which exploitation revenues are shared with researchers. Copies of the relevant extracts are available on request.
9. All staff participate in the University's appraisal scheme which is currently under review.
10. The University has generous maternity leave arrangements. Provided that they have at least 26 weeks' service with the University at the fifteenth week before the expected week of childbirth, or at the fifteenth week before the expected week of childbirth have had two years' continuous service with any employer in the past, or were at any stage entitled to the benefits of a previous employer's paid maternity leave scheme, women may take up to 26 weeks' leave on full pay plus a further 26 weeks' unpaid leave. Arrangements are available to enable a phased return to full duties; for women to return to work on a part-time basis after the birth of their child; and for paternity leave. Requests for flexible working arrangements will be considered.
11. The University has three subsidised nurseries and also subsidises places at some local nurseries, although at present there is a waiting list. In addition, staff have access to a childminding network. There is also a salary sacrifice scheme whereby parents with children at university nurseries are able to save on income tax and national insurance contributions, and a virtual voucher scheme for parents with children not at university nurseries or placed with childminders through the network whereby a saving is made on national insurance contributions. There is also a holiday playscheme for school-age children. Further information may be obtained from the childcare website (www.admin.ox.ac.uk/eop/child) or by e-mailing childcare@admin.ox.ac.uk, or writing to the Diversity and Equal Opportunities Unit, University of Oxford, University Offices, Wellington Square, Oxford OX1 2JD.
12. *Equality of opportunity*: The policy and practice of the University of Oxford require that all staff are offered equal opportunities within employment. Entry into employment with the University and progression within employment will be determined only by personal merit and the application of criteria which are related to the duties of each particular post and the relevant salary structure. In all cases, ability to perform the job will be the primary consideration. Subject to statutory provisions, no applicant or member of staff will be treated less favourably than another because of his or her sex, marital or civil partnership status, sexual orientation, religion or belief, racial group or disability.

Where suitably qualified individuals are available, selection committees will contain at least one member of each sex.

13. All data supplied by applicants will be used only for the purposes of determining their suitability for the post and will be held in accordance with the principles of the Data Protection Act 1998 and the University's Data Protection Policy.
14. All reasonable interview expenses will be reimbursed. The appointment will be subject to satisfactory completion of a medical questionnaire and the provision of proof of the right to work in the UK.

15. Removal expenses and travelling expenses in connection with the move to Oxford of the successful candidate are generally paid in full in appropriate cases. Professional expenses of up to £6,500 also are available where appropriate to cover solicitors' and other costs in connection with a move. Further details are available on request.

ACADEMIC APPOINTMENTS AT OXFORD

There are three main categories of academic post at Oxford: professorships, readerships, and lecturerships. Professorships and readerships form respectively about 11 per cent and 3 per cent of the posts on the academic establishment: the vast majority of initial academic appointments are therefore to lecturerships. As a result of cash-limited promotions exercises held between 1988 and 1994 a small number of staff hold *ad hominem* professorships or readerships.

Virtually all university academic posts at Oxford have a formal association with a college. For lecturers the nature of this association broadly determines which particular type of lecturership they hold.

University lecturerships are found primarily, but not exclusively, in the sciences, and the majority are associated with a tutorial fellowship with a college, i.e. a college appointment which carries with it an obligation to undertake college teaching and other duties, and associated additional remuneration. University lecturers with tutorial fellowships receive, when they reach the top of the university and college salary scales, about 84 per cent of their overall basic stipend from the University, and 16 per cent from the college.

A special scheme operates for university lecturers without tutorial fellowships. This post is a University lecturership but does not have an associated college tutorial fellowship. It therefore falls into a class called **ULNTF** (University Lecturer Non-Tutorial Fellowship). As well as paying the stipend normally paid to University lecturers, the University also pays that part usually paid by colleges. The University therefore requires an additional teaching duty equivalent to that associated with a tutorial fellowship, which it is free to use itself or to assign to one or more colleges.

CUF (Common University Fund), special (non-CUF), and faculty lecturerships, in the arts and social sciences, are always associated with college tutorial fellowships: at the top of the scales CUF lecturers receive roughly 40 per cent of their combined stipend from the University and 60 per cent from the college, and faculty lecturers approximately 50 per cent from each. **Titular** university and CUF lecturerships may be advertised where the college will bear all of the combined costs of the appointment until such time that the University is able to fund its share and so make a substantive appointment.

**SALARY SCALE FOR UNIVERSITY LECTURERS
WITHOUT TUTORIAL FELLOWSHIPS**

The following scale proceeds by annual increments with effect from 1 May 2008:

£
40,334
41,545
42,791
44,074
45,397
46,759
48,161
49,606
51,095
52,628
54,207

**UNIVERSITY OF OXFORD
SOMERVILLE COLLEGE**

in association with the advertised University Lecturership in Computer Science

COLLEGE FELLOWSHIP

The University Lecturership in Knowledge Representation and Reasoning will be held in association with a non-stipendiary Senior Research Fellowship at Somerville College.

Computation at Somerville is a cross-disciplinary subject currently represented by the following Fellows:

- Professor Stephen Pulman, Professor of Computational Linguistics, whose research focuses on semantics and reasoning in natural language.
- Professor Stephen Roberts, Engineering, whose research is in machine learning, especially Bayesian methods, for pattern recognition in a variety of applications.

Fellows with related interests include Dr Nicolai Meinshausen, Tutor in Statistics, whose research is in statistical analysis and machine learning for large datasets.

Somerville is one of the thirty-nine constituent colleges of the University of Oxford. It was founded (as Somerville Hall) in 1879 to provide an opportunity for women, who at that date were excluded from membership of the University, to gain higher education at Oxford. The founders' insistence that students should not be subjected to religious tests or obligations marked Somerville off from its Anglican counterpart, Lady Margaret Hall, and set the tone of cultural diversity which has characterized the College to this day.

Male Fellows were first admitted in 1993 and male undergraduates in 1994. At present there are 41 members of Governing Body, 390 undergraduates and 100 graduates, with roughly equal numbers of women and men at each level. There are reasonably priced nursery facilities, housed in College buildings within the curtilage, and used by many members of the College for pre-school age children. The Senior Research Fellowship offers full Common Table Rights, and membership of the Senior Common Room, a contributory healthcare scheme and a free employee assistance scheme.

More detailed information about the College may be found at www.some.ox.ac.uk/ Candidates may also contact the Senior Tutor, Miss Norma MacManaway (norma.macmanaway@some.ox.ac.uk).