Imperial College
London

Undergraduate Research Opportunities Programme (UROP)

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Institutional Context:
• Imperial College is a research intensive science and technology based institution with 13,473 full-time students (8,608 undergraduate) and an international reputation for excellence in teaching and research. Almost all academic staff are active in research and last year generated a total grant income of £286,812,000. (Imperial College Statistics 2009-10).
• Most undergraduate degrees are specialised, single subject degrees often to masters level with high practical content and considerable exposure to research equipment and staff. There is normally a significant (~30%) research project component.
• In addition to the research and enquiry based study that forms a part of the undergraduate curricula there are a number of opportunities for students to get involved with research (e.g iGem, Racing Green)... Perhaps the most significant of these is the long running UROP.

Imperial UROP:
• Provides an opportunity for undergraduate students to participate in ‘real’ extra-curricula research.
• Started in 1980 - First of its kind in UK and based on the then experiences at MIT - Hosted over 4000 students.
• Open to any taught Imperial student as an extra-curricula activity – most are in their 2nd or 3rd year of study.
• Now also open to any bachelor/masters student from the EEA (credit awarded by home institution).
• Selection of students is undertaken by host group – this can be competitive but is individually negotiated between students and potential supervisors.
• Participants are supported & mentored by their host research group/department.
• Typically placements are 6-12 weeks in the summer vacation, but this is flexible and some are much longer.
• Students can receive a bursary (typically £150-250 p/w) from departmental funds, research grants or specific third party sources (Research Councils, Imperial College, Alumni, Wellcome Trust).
• College funds staff for the UROP team and provides space as part of Registry.
• UROP team registers & formalises placements at college level therefore providing insurance cover, access to college services and a back-up for problems. It administers the payment of bursaries and arranges a summer party.
• Imperial UROP is well-established and sustainable, requiring only a light approach to facilitate and support it.

Strengths of Imperial UROP:
Participants:
• like UROP – 86% enjoyed the independence and responsibility.
• are satisfied with most aspects of UROP – 17% would like more money.
• ‘An amazing and insightful experience!’ ‘good fun and intellectually stimulating’
• feel it helps their disciplinary understanding, & enhances their CV & career prospects.
• highly value the chance to do ‘real’ research.
• ‘UROP participation felt like the beginning of a research career’

Host Researchers:
• well motivated (& cheap) students who are low risk & often contribute significantly to research – bringing perspective & sometimes specific skills.
• build relationships with potential PhD students.
• allows more junior team members to have some experience of supervision.
• ‘We have UROP students to begin the process of fostering the next generation of research scientists ...... they often make novel & unexpected findings that lead us in new research directions.’

UROP - Challenges & Developments:
• Academic Credit – at the moment UROP is extra-curricular and provides extra and ‘real’ experience ... will this be diluted if the programme becomes a credit bearing part of a course?
• Quality – encouraging feedback and actively using it to improve the experience for both students and supervisors.
• Bursaries – finding and managing a complex array of schemes and funds.