BPHIL (HONS) RESEARCH TRAINING THROUGH THE RESEARCH PLACEMENT AT LEVEL 2

Introduction

Global Challenges, Research and Leadership (GCRL1000) provides the platform for undergraduate research training in BPhil (Hons). Placement with a research mentor at Level 2 extends that experience by preparing students for further research placements (e.g. as part of a SAS/Exchange program or an individual placement) and the independent research project, undertaken as a unit, at Level 3.¹

The Research Placement extends a primary aim of GCRL1000 — “learning to think like a researcher” — by enabling BPhil (Hons) students to practice the sequence of research “elements” along with “discipline content” of a Cycle 1 degree at an advanced level. That is, BPhil (Hons) students will experience:

A. The evolution of the discipline, including its history, philosophy and theorising.
B. The methods of enquiry that the discipline uses, including methods of research ethics.
C. The practice of enquiry-based thinking relevant to the discipline.
D. The discourse conventions of the discipline.²

in the context of an active research team.

Students entering BPhil (Hons) through the Group 2 intake will, necessarily, have different experiences but a number of broadening units³ and Level 1 units in degree-specific majors include some elements found in GCRL1000. ENSC1001, for example, is available as a broadening unit, is required for Level 1 in the Engineering Science major and includes some research method and collaboration elements of GCRL1000.⁴

Background

Three documents are relevant:
Honours and B.Phil Working Party Report Future Framework Implementation (F26593) [July 2009], 5 University Policy on: Bachelor of Philosophy (Honours) Date approved 01/06/2011 6 and Interim Board of Studies: Bachelor of Philosophy (Honours) Curriculum (F28852) (2009).7

There is broad agreement among these documents. Academic requirements for the Level 2 research placement are suggested rather than specified in Curriculum (F28852) thus providing flexibility to align students’ interests, mentors’ current research projects and disciplinary protocols.

In semester 1, 2012, GCRL1000 students satisfied a number of learning outcomes beyond those identified for Level 1 in Curriculum (F28852),8 primarily as a result of the pedagogy adopted in this unit (see Attachment A), and suggesting that the academic content can be increased. Thus, a requirement such as, “prepare a short reflective statement on Level 1 experience for B.Phil (Hons) website (500 words max)” (Communications experience, endnote 3) represents a minimum rather than a limit.

Models
Undergraduate research placements are widespread in UWA comparators — e.g. Undergraduate Research Opportunities offered through Universitas 219 — and UWA itself provides a model in the successful UWA-USTC Research Training Program.10 Students’ views on the value of such research placements are also variously attested — e.g. BBSRC’s Review of Research Experience Placements 201011 — and in the scholarship around teaching and learning.12

Best practice
Descriptions of undergraduate research placements vary, often depending on whether they are located within a program (e.g. via U Connecticut’s Office of Undergraduate
Research\textsuperscript{13} or individually negotiated (e.g. University of Cambridge’s university-wide system where individual students sign up for individual projects)\textsuperscript{14}, rolled into assessment or free-standing as not for credit.

The most comprehensive survey of best practice in undergraduate research training is compiled in \textit{Characteristics of Excellence in Undergraduate Research (COEUR)} (2012), edited by Nancy Hensel and published by the Council on Undergraduate Research\textsuperscript{15}. Rowlett, Blockus and Larson’s lead chapter identifies 12 such characteristics ranging from “1. Campus Mission and Culture” to “12 Strategic Planning;” each section describes a characteristic’s individual features and places it within the overall context. “Campus Mission and Culture,” for example, includes discussion of institutional commitment, scholarly faculty, faculty commitment, broad disciplinary participation, accessible opportunities for undergraduates and integration with other engaging and high-impact opportunities (2-4). This survey would provide a valuable framework both or reviewing the Research Placement in BPhil (Hons) at an appropriate time and refining the current model.

More narrowly focused guidelines for research experience placements usually include the following elements to “scaffold” both the students’ and mentors’ experience: selecting a suitable undergraduate student, identifying a suitable project and then ensuring that

- appropriate supervisory arrangements are in place.
- any necessary ethical committee approvals and requirements of regulatory authorities are completed before the work begins and maintained during the duration of the work.
- the identification and protection from exploitation of any intellectual property rights arising from the work are effected.
- all facilities, agreements about access and collaborations necessary for the work are in place and can be ensured through the period of the work.
- support costs provided and used are also audited.
- outcomes from the project are reported.\textsuperscript{16}
In the wider context, UWA has a number of relevant guidelines in place: Code of Conduct for the Responsible Conduct of Research;\(^\text{17}\) a Code of Ethics and Code of Conduct;\(^\text{18}\) for Human Research Ethics;\(^\text{19}\) Guidelines for Graduate Research Supervisors;\(^\text{20}\) a Student Charter of Rights and Responsibilities.\(^\text{21}\) University Policy provides a Best Practice Guide for Honours Supervision as part of the policy on Honours Award;\(^\text{22}\) individual Faculties provide guidance on Honours programs\(^\text{23}\) and advice and support for Honours students;\(^\text{24}\) in addition, discipline-specific academic advice is available within individual Schools;\(^\text{25}\) the Honours Hub\(^\text{26}\) provides generic resources.\(^\text{27}\)

Further, BPhil (Hons) students will come to the Level 2 placement with some research experience. GCRL1000 students, for example, will have applied for Human Research Ethics clearance as part of their research projects; all students are familiarized with the Student Charter through the Current Students webpage.\(^\text{28}\)

**Guidelines**

These guidelines seek to balance the imperatives of curriculum, implementation and parity. The curricular imperative of research training within specific disciplines, potentially ranging across the 76 majors offered in New Courses 2012, requires flexibility in the selection of activities, tasks and outputs suitable for an undergraduate student within the context of an ongoing research project.

Organizing the Research Placement acknowledges the

- reality that the Research Placement, while not being a formal unit, is undertaken in addition to a student’s normal course load and so the workload of both student and Mentor needs to be monitored;
- existing policies and guidelines supporting undergraduate research, usually at Honours level but not invariably so (e.g. ULTRIS and Matariki), providing guidance at all stages of the placement and in specific instances such as dispute resolution;
• prior knowledge of and training in ethical dimension of research provided by GCRL1000 may not be shared by Group 2 entrants to the degree and may not be sufficient once students are in discipline-specific research contexts. Thus, a workshop, presented by specialists prior to placement addressing Human Ethics, Animal Ethics and Bio-Safety, as well as issues around the Code of Conduct of Research, Data Management, Open Access etc. will be required.

• value of engaging students in investigating the options as a way of familiarizing themselves with research at UWA;

• ongoing research conducted by high-profile and highly successful researchers and their teams;

• appropriateness of placing BPhil (Hons) students with these researchers;

• need (before the next cohort’s placements) to formalize the networks of available researchers and projects;

• requirement to track students’ research placements to ensure completion and thus progression and effectiveness in terms of research experience and training;

• need to provide support to both students and research mentors;

• need to foreshadow review within a reasonable time to ensure that research placements align with best practice, on the one hand, and BPhil (Hons) students’ requirements, on the other.

Ensuring parity aims to ensure students achieve comparable educational experiences across a diversity of research locations. A number of outcomes are described below that will provide some structure for comparability; students’ evaluation of their experience/s will add another dimension; as will feedback from Research Mentors. But the terms in which “parity” is understood and the criteria against which it is measured will — realistically — remain a challenge. Parity may be less a matter of terms to be audited and better evaluated first, by ensuring students have equal access to the research placement and second, by investigating the use students make of their research experience, for example, in relation to the Level 3 independent research project and/or a further research placement either at UWA, as an individual placement or as part of a SAS/Exchange program. Students’
experience of research placements in the BSc (Advanced Science) suggest that one of the most powerful outcomes is the intangible experience of being part of a research team.

**Academic descriptors**

The Research Placement offers BPhil (Hons) students the opportunity, “in the course of at least three meetings” with the Research Mentor, “to discuss research activities, practices and culture of the relevant discipline.”

**Choice of Mentor**

The choice of Research Mentor, schedule of meetings and choice of research activities appropriate to student’s abilities and development will need to be signed-off by both student and mentor and lodged with the Academic Co-ordinator.

**Outcomes**

Students on Research Placement may engage in a variety of activities and, without being limited to the following outcomes, will need to:

- *Undertake a discipline-wide survey* identifying three suitable researchers with whom the student might undertake the Research Placement; assisted by research tools in Moodle (see Attachment B); submitted to the Academic Co-ordinator in the preceding semester.

- *Develop a text/digital object* that may take the form of a research journal to record research activities, develop appropriate research outputs conforming to discursive conventions the particular discipline and a researcher’s *curriculum vitae*.

- *Participate in a research meeting* — conference, seminar, poster session, presentation, 3-Minute Thesis format — selected from a range of professional academic and undergraduate options convened on-campus at UWA (e.g. Institute of
Advanced Studies, School/research centre seminar series) or off-campus (national or international).\textsuperscript{31}

- \textit{Build a web presence} in the BPhil (Hons) Centre for Undergraduate Research, accessed through LMS\textsuperscript{32}. This site will provide access to eLearning and ePortfolio tools, research resources and a workspace for each student.

**Organizational details**

<table>
<thead>
<tr>
<th><strong>Name</strong></th>
<th>BPhil (Hons) Research Placement: neither a special unit\textsuperscript{33} nor a practicum\textsuperscript{34}</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level</strong></td>
<td>Level 2</td>
</tr>
<tr>
<td><strong>Duration</strong></td>
<td>Normally 1 semester</td>
</tr>
<tr>
<td><strong>Assessment</strong></td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Recording</strong></td>
<td>Research Placement will need to be recorded on academic transcript</td>
</tr>
<tr>
<td><strong>Workload</strong></td>
<td>By agreement: no unit criteria apply; students need to attend specialist workshop in ethics training.</td>
</tr>
<tr>
<td><strong>Placement</strong></td>
<td>Curriculum (F28852) recommends the “choice of mentor would be arranged by negotiation of the B.Phil (Hons) Course Co-ordinator and the relevant discipline area of the student’s major.”\textsuperscript{35} While students will usually be placed with leading UWA researchers whose grants and projects offer the scope to train and support undergraduate researchers\textsuperscript{36}, students commence their placement by undertaking a discipline-wide search to nominate 3 preferred researchers.</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>including insurance and access should be agreed and in place before the placement commences and extend for an appropriate length.</td>
</tr>
<tr>
<td><strong>Intellectual property</strong></td>
<td>should be protected under the University Policy on Intellectual Property where appropriate, for example, 2 1.2.1.\textsuperscript{37}</td>
</tr>
<tr>
<td><strong>Support</strong></td>
<td>Mentors and students will have the support of the Academic Co-ordinator as well as the University Policy on: Honours Award, which includes a Best Practice Guide to Supervision of Honours students.\textsuperscript{38}</td>
</tr>
</tbody>
</table>
Review 2013 Research Placements will reveal a network of research colleagues and projects suitable for BPhil (Hons) students, by analogy with the UWA-USTC project. This network will need to be tracked, supported and aligned for subsequent BPhil (Hons) cohorts. There are a number of models — for disciplines in the Sciences, Humanities, Social Sciences and Business — to inform how UWA formalizes this network but it will be essential to the success of this element in BPhil (Hons). A review would be appropriate after 2 cohorts’ placements.

Assoc. Prof. Jenna Mead
Academic Co-ordinator, BPhil (Hons)
Sept 2012
BPhil (Hons) Level 2
RESEARCH PLACEMENT
GUIDELINES

Aim
Placement with a research mentor at Level 2 extends Level 1 research training by preparing students for further placements (e.g. as part of a SAS/Exchange program or an individual placement) and the independent research project at Level 3. This placement is normally for one semester. Students may also undertake volunteer placements or work experience either on a stand-alone basis or part of a SAS/Exchange program.

Background
The Research Placement extends a primary aim of GCRL1000 — “learning to think like a researcher”— by enabling BPhil (Hons) students to practice a sequence of research “elements” along with “discipline content” of a Cycle 1 degree at an advanced level. That is, BPhil (Hons) students will experience:

A. The evolution of the discipline, including its history, philosophy and theorizing.
B. The methods of enquiry that the discipline uses, including methods of research ethics.
C. The practice of enquiry-based thinking relevant to the discipline.
D. The discourse conventions of the discipline.¹ in the context of an active research team.

Students entering BPhil (Hons) at Level 2 intake will have different experiences but a number of broadening units and Level 1 units in degree-specific majors include some elements found in GCRL1000.²

¹
²
Outcomes

Students on Research Placement may engage in a variety of activities and, without being limited to the following outcomes, will need to:

- **Undertake a discipline-wide survey** identifying three suitable researchers with whom the student might undertake the Research Placement; assisted by research tools in Moodle (see Attachment B); submitted to the Academic Coordinator in the preceding semester.

- **Attend comprehensive seminar on** Human Ethics, Animal Ethics and Bio-Safety, as well as issues around the Code of Conduct of Research, Data Management, Open Access, etc. conducted by DV-C (Research) or nominee. Attendance is a requirement and students will be formally notified about this seminar.

- **Meet with the mentor** at least THREE times during the semester.

- **Agree on a series of research activities** appropriate to the research being conducted by the team and the student’s level of training. Both parties to sign-off.

  Complete a research placement application; available online.

- **Develop a text/digital object** that may take the form of a research journal to record research activities, develop appropriate research outputs conforming to discursive conventions the particular discipline. Resourced through BPhil (Hons) Centre for Undergraduate Research (BCUR).

- **Participate in a research meeting** — conference, seminar, poster session, presentation — selected from a range of professional academic and undergraduate options convened on-campus at UWA (e.g. Institute of Advanced Studies, School/research centre seminar series) or off-campus (national or international).

  - **Attend BPhil (Hons) Research Seminar** held in weeks 3, 7 and 11. Students will nominate to present a 3-minute presentation at ONE seminar. The presentation needs to present some aspect of the work of the research team in which students are working. Presentations will be followed by 2-3 minutes’
question and answer. Judges, selected at each session, will provide feedback and there may be prizes.

- *Develop a research profile* appropriate for a researcher. The profile may be *a web presence* in the BCUR, a *curriculum vitae* or another appropriate format.
- *Participate in an evaluation process* for the Research Placement, conducted online through BCUR.

**Assessment**

The Research Placement has no formal assessment as it’s a placement rather than a unit. However,

- both mentor and student will need to sign-off on the agreed outcomes.
- The digital object and *curriculum vitae* both need to be submitted to the Academic Co-ordinator to formalize completion.

**Insurance, Resources, Intellectual Property, Research Ethics**

- Standard insurance arrangements should be completed where required, for example, in clinical settings.
- Resourcing is at the research mentor’s discretion; it would be helpful to record resource requirements where appropriate.
- University policies on intellectual property and the Conduct of Research; the Code of Ethics and Code of Conduct; for Human Research Ethics also apply in this setting.

**Concluding remarks**

I’d like to thank research colleagues who have agreed to act as mentors. The Research Placement is being trialed in 2013 and I’d be grateful for feedback from both mentors and students. The model used here has been adapted from the UWA-USTC Research Training Program and the erstwhile Advanced Science degree. If problems occur, please let me know immediately.

Best wishes,
2 ENSC1001, for example, is available as a broadening unit, is required for Level 1 in the Engineering Science major and includes some research method and collaboration elements of GCRL1000.
3 E.g. First Australasian Conference of Undergraduate Research, Macquarie University, 20 Sept 2012,