



# **Harper Adams University**

## **Postgraduate Research Students' Handbook**

**Master of Philosophy and Doctor of Philosophy**

September 2018

## **Dates of note in the Research Calendar 2018-2019**

### **Postgraduate Research Student Colloquium**

Thursday, 29 November 2018

### **Research and Knowledge Exchange Committee**

Wednesday, 3 October 2018, 2.00 pm

Wednesday, 20 February 2019, 2.00 pm

Wednesday, 22 May 2019, 2.00 pm

### **Research Degrees Committee**

Wednesday, 21 November 2018, 2.00 pm

Wednesday, 6 March 2019, 2.00 pm

Wednesday, 10 July 2019, 2.00 pm

### **Research Degrees Awarding Board**

Wednesday, 5 December 2018, 2.00 pm

Wednesday, 13 March 2019, 2.00 pm

Monday, 1 July 2019, 2.00 pm

Tuesday, 10 September 2019, 2.00 pm

### **Induction**

Week commencing Monday, 23 September 2018

Week commencing Monday, 8 April 2019

### **Researchers who Teach**

Date to be confirmed

### **Date to Experimental Design and Analysis**

Date to be confirmed

### **Genstat**

Date to be confirmed

### **Postgraduate Development Programme**

The majority of sessions will take place between

weeks commencing 1 and 8 April 2019

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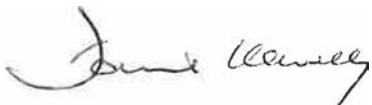
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### **Message from the Vice Chancellor**

It is my pleasure to welcome you as a postgraduate research student of Harper Adams University and I hope that you will enjoy your time here, both academically and as part of the Harper Adams community. As a specialist institution, the University has developed unique and high quality research provision that is achieving increased national and international recognition, with investigations supported by a well-founded laboratory and farm facilities.

To achieve your research goals, you need to feel content and supported by a responsive research administration. This guide is intended to help you get the most out of our facilities and services. It contains relevant information, administrative and support arrangements and quality assurance procedures associated with research degrees at the University. I hope that it will be a useful reference source during your time at Harper Adams.

A handwritten signature in black ink, appearing to read 'David Llewellyn', written in a cursive style.

**Dr David Llewellyn**

## 1 Introduction

### 1.1 Research at Harper Adams University

The mission of Harper Adams University is to provide “World leading Higher Education and research for the delivery of sustainable food chains and rural economies”, and strategic and applied research underpins all its activities. Research is an important part of the work of Harper Adams, not just for the benefit of end-users, but also supporting the taught curriculum.

#### **Our Vision**

Our vision for 2020 is that Harper Adams University will be:

- Closely engaged with the industries, professions and organisations that comprise the global agri-food chain and the UK rural economy to deliver a high quality and inclusive learning environment that enhances personal development and employability;
- A recognised centre of research excellence, especially in the application of science and technological advances and;
- A trusted source of independent and authoritative commentary to inform public and policy debate on agri-food, animal welfare, land, environmental and rural business matters.

#### **Our Values**

Harper Adams has a strong set of values that have underpinned its development since its foundation nearly 115 years ago. The four core values are that we will be **outstanding**, **inspirational**, **distinctive** and **welcoming** in all that we do.

Further information on research facilities and current projects at Harper Adams can be found at [www.harper-adams.ac.uk](http://www.harper-adams.ac.uk).

In 1996 the Privy Council granted Harper Adams University the right to award its own taught degrees at both undergraduate and postgraduate level. Independent research degree awarding powers were granted in July 2006. To date, there have been over 140 successful candidates for research degrees, with a current postgraduate and postdoctoral research population of about 68. Harper Adams is the only specialist Higher Education Institution in the land-based sector with Research Degree Awarding Powers and is the major provider of undergraduate education in agriculture, agricultural engineering and land-based disciplines in the UK.

### 1.2 Responsibility for Research

The Deputy Vice Chancellor has overall responsibility for research working with the Research Co-ordinator. The Research Postgraduate Programmes Manager has

responsibility for operational aspects of research degrees. Harper Adams University has five academic departments:

- Animal Production, Welfare and Veterinary Sciences;
- Crop and Environment Sciences;
- Engineering;
- Food Science and Agri-Food Supply Chain Management;
- Land, Farm and Agri-Business Management;

each with their own Head of Department. Within each academic department, a member of staff is nominated as the Research Lead to facilitate cross-University research activities.

The Research Office (M42) supports the work of the academic staff and postgraduate students. The Research Students Administrator provides administrative support and guidance to postgraduate research students and their supervisors on all matters relating to research degree processes.

The Research and Knowledge Exchange Committee has responsibility for overseeing research at Harper Adams. The Research Degrees Committee is responsible for policies and procedures relating to postgraduate research degrees. The registration, monitoring of postgraduate research students' progress and award of research degrees is conducted by the Research Degrees Awarding Board. The Research and Knowledge Exchange Committee and Research Degrees Committee have postgraduate research student representation elected annually.

For full details the reader is referred to the Academic Quality Assurance Manual,

A ballot is held annually to elect the postgraduate research student representatives who then represent the postgraduate research community for the academic year. Responsibilities include:

- Acting as point of contact for research students for representing views on generic research student issues to the appropriate forum or member of staff;
- Membership of the Research and Knowledge Exchange Committee and the Research Degrees Committee (each meet three times a year);
- Two weeks before each meeting of the Research Degrees Committee, an informal meeting of the postgraduate research students shall be facilitated by the Chair of Research Degrees Committee and Postgraduate Research Student Representative. This meeting shall provide a forum for collecting views which can inform the agenda of the Committee meeting. The student representative shall also have the right, as a



full member of the Committee, to submit agenda items to the Chair of the Research Degrees Committee at any stage.

- Acting as point of contact for the Research Students Administrator and Research Postgraduate Programmes Manager on postgraduate research student issues;
- Meeting with the Laboratory Manager once a month on behalf of the postgraduate research students;
- Participating in the induction of new postgraduate research students;
- Assisting in the organisation of the annual Postgraduate Colloquium;
- Promoting and encouraging postgraduate research student attendance at the lunchtime research seminars;
- Participating in the Institutional Audit as required;
- Initiating ad hoc postgraduate research student social activities such as a Christmas meal.

## 2. Support and facilities for MPhil and PhD research students

### 2.1 General

All MPhil and PhD students registered at Harper Adams University, either full-time or part-time and based on campus or off-site, are encouraged to integrate into the research environment of the University. All students are entitled to use the University 'open-access' computer facilities located in the Postgraduate Centre and the Bamford Library. Computer support staff are also based in that building and students can contact them on Ext 5555 or e-mail [servicedesk@harper-adams.ac.uk](mailto:servicedesk@harper-adams.ac.uk) with any problems. The University has a well stocked specialist agri-food library and all MPhil and PhD students are entitled to use the inter-library loan service.

In addition, all registered full-time MPhil and PhD students based on campus are assigned their own personal computer and shared office accommodation with either research students or post-doctoral researchers/research assistants for their three year research programme plus a further six months for writing up purposes.

From the date when, either the student is no longer working full-time at Harper Adams, or the thesis has been submitted, whichever occurs first, the PC, desk and storage facilities in the office must be vacated. Archiving and storage of samples, data and paper-based material must be discussed with the Director of Studies. Any material left in storage facilities in the office after this date will be disposed of.

The University network is extended by wireless into several of the shared spaces of the University. If you have questions on IT facilities please contact the Service Desk by e-mail [servicedesk@harper-adams.ac.uk](mailto:servicedesk@harper-adams.ac.uk) or by telephone 01952 815555 (or Ext 5555 from an internal phone). They are also assigned their own post-tray in the Post Room for in-coming and internal mail and are members of the Senior Common Room. At least one hot desk for part-time MPhil and PhD students will be made available. If this is occupied, working space in the Postgraduate Centre can be used.

Stationery, such as pens, pencils and notepads, are available from Reception in the Main Building. Items not stocked at Reception can be requested on a 'Requisition for Stationery' form available in the post room and left in the 'Completed Stationery Request Forms' post tray or by email to [stationery@harper-adams.ac.uk](mailto:stationery@harper-adams.ac.uk). Note that your Director of Studies will be authorising payment for requisitions, so please seek their permission first.

Business cards are available from your Departmental Administrator.

Information on sports facilities can be obtained from A Jefferies, Student Services Support Officer (Sports, Societies and Participation) (email [ajefferies@harper-adams.ac.uk](mailto:ajefferies@harper-adams.ac.uk)).

You can use your ID card to pay for food on campus with 10% discount. Money can be put on your ID card on line.

Full-time students can apply for a Young Person's Railcard and get a third off off-peak train fares. Your Director of Studies can sign to verify the application form and the Research Students Administrator can provide the University stamp.

Full-time students can apply for an International Student Identity Card (ISIC which is recognised more widely as student ID than the University's staff/student ID card.

Printing facilities are available in some offices and on the network.

Staff at the University pay a contribution each month towards the cost of tea/coffee/milk etc that is made available in the Common Room in Main Building and also in kitchens around campus eg Jubilee Adams/Engineering AEIC. **All** PhD/MPhil students who wish to make use of these facilities are welcome to do so, but are kindly asked to pay £3.00 per month to cover the cost of their drinks, or 30p per cup - whichever they prefer to do. Honesty boxes for collecting postgraduate research student contributions for the beverage fund are located in the staff Common Room and Jubilee Adams kitchen, where beverage supplies of tea, coffee, milk and sugar are available. It would be appreciated if **all** students using these facilities could please ensure they make the necessary payments. The above costs are subject to an annual increase.

## 2.2 Student Accommodation

All arrangements for student accommodation are administered via Student Services (Ext 5286) who maintain up to date lists of accommodation available both locally and on campus. Postgraduates who choose to rent privately are entitled to be exempted from Council Tax. In this case, the Research Students Administrator (Ext 5328) will provide a letter in support. The Research Students Administrator must be notified of all changes of address.

## 2.3 Religion

Whatever your religious views are, you can be almost guaranteed there is a place of worship and congregation within reasonable travelling distance. We also have a quiet room situated on campus in Faccenda (FS18) should you wish to use it.

#### 2.4 Motor Vehicles, Car Parking Policy and Regulations

Please see the Motor Vehicles, Car Parking Policy and Regulations at <http://harper.ac.uk/keyinfo>

#### 2.5 Induction

Induction for MPhil and PhD students will normally take place in September. If required an additional programme may be arranged in April. All new MPhil and PhD students are required to attend the induction programme.

#### 2.6 Learner Support

The University is committed to achieving equal opportunities for all of its students. It seeks to provide an integrated service for students with a range of disabilities and specific learning needs and aims to create a supportive environment. The Learner Support Co-ordinator, Jane Hill, can be contacted on Ext 5417 or [jhill@harper-adams.ac.uk](mailto:jhill@harper-adams.ac.uk) for advice and guidance.

English language support is available. Please contact Stephen Giles (Ext 5005, email [sgiles@harper-adams.ac.uk](mailto:sgiles@harper-adams.ac.uk)) who is the English Language Student Support Manager.

All non-native English speaking students, admitted on the basis of their IELTS scores or equivalent to pursue a PhD/MPhil, will be assessed by the English Language Tutor on arrival to evaluate whether they should subsequently be required to attend the English Language support classes provided on campus.

#### 2.7 Medical

Please see the following link on the Harper Adams University website:

<https://www.harper-adams.ac.uk/university-life/student-support/health.cfm>

#### 2.8 Counselling

Seeing a counsellor can provide you with an independent and confidential venue to discuss issues that may be concerning you. Sometimes there are difficulties that are hard to discuss with supervisors, family, friends or other research students. Professional assistance at these times can help resolve problems and prevent future ones from developing. Appointments may assist with academic support, personal counselling, assistance with policies and procedures, dispute mediation, crisis services and particular support for students with disabilities.

Please see the Harper Adams University website for contact details for the counselling service.

## 2.9 Contents/Personal Possessions Insurance

The University Authorities can accept no responsibility whatsoever for loss or damage by theft, fire or other cause of personal property or money on University premises. Students are strongly advised to arrange insurance of their personal property. Endsleigh Insurance, along with many other insurance companies, offer reasonably priced contents insurance for students. You can get a quote from Endsleigh on their website at [www.endsleigh.co.uk](http://www.endsleigh.co.uk) or contact them on 0800 028 3571.

## 2.10 The 'Harper Adams PostGrads'

Any Postgraduate student is able to organise social or other networking events within the PG cohort but there is no defined society and therefore no fee. Most events are organised through the PG Facebook page and can range from small scale gatherings to large events, such as quiz nights and excursions, but all need to be arranged independently in terms of funding from the SU, so students can expect to pay a small 'entrance fee' depending on the event. However, all events which make use of the PG centre need to be given the go ahead by Heather Hogan. No alcohol can be provided as the PG centre is not a licence holder.

### **3. Training and Career Development**

#### **3.1 Personal Development**

In accordance with the UK Quality Code for Higher Education, Part B: Assuring and Enhancing Academic Quality, Chapter 11: Research Degrees

([http://www.qaa.ac.uk/docs/qaa/quality-code/chapter-b11\\_research-degrees.pdf](http://www.qaa.ac.uk/docs/qaa/quality-code/chapter-b11_research-degrees.pdf))

Harper Adams University recognises that research encompasses more than simply academic skills, and that research students are professionals training for a career in their chosen field. A research qualification may lead to a career in an academic setting, but could equally result in technical research work in industry, a specialist communication or policy development role, or a wide range of other opportunities both in the UK and overseas. To support the diversity of our research students and their aims, individual and group training is provided by the supervisory team and by the University. Research students are also encouraged to consider development opportunities through external events and activities eg those offered by professional organisations and learned societies.

Each MPhil and PhD student will see the Researcher Developer (RD) at the development talk at induction. They will subsequently meet with the RD individually, soon after enrolment to discuss their training and development needs, and formulate the Personal Development Plan (students intending to register for MPhil) or Doctoral Development Plan (students intending to register for PhD). The plan will be created using the UK national Vitae Researcher Development Framework (RDF), and will include skills development activities and training opportunities, based on the research student's individual needs.

The induction and individual meeting is also used to introduce the student to the RDF Planner. The RDF planner is an online resource for research students, which captures development activity and is the University's recommended tool for record keeping for all research students. Reports from the RDF planner are used to review personal development annually, and are considered by the RD, supervisory team, Specific Degree Registration Report examiners and final thesis examiners. The RD will meet each research student annually to review and discuss progress, and establish plans for the coming year; the research student is expected to contact the RD with any issues arising through the year if appropriate.

Planned development activities can include attendance at University training e.g. Advanced Research Methods, participating in external events such as attending, or presenting at, a relevant conference, or other developmental activities tailored to the student's needs.

Development will also take place through other aspects of the student's research and day to day activities, for example, regular meetings with supervisors will establish time management and offer effective project planning, organisational strategies and team working. A range of further training is provided by the University in communication and presentation skills, career planning and networking, research and writing skills, and relevant information technology. Online training resources are offered to support students who are based off campus, or who want to access training outside of office hours. An important component of research training is being able to understand and critically analyse the research of others. This training is provided partly by reviewing written reports of research for the literature review and incorporating supervisors' guidance on drafts of the literature review. A second important component of this training is through listening to oral presentation of research. For this reason, the University provides a programme of research seminars on topics relevant to the Research Strategy and the range of topics studied by MPhil and PhD students. Research seminars are held at the University regularly on Wednesday lunchtimes during term-time and are led by internal and external speakers, enabling research students to observe a wide range of presentation styles before presenting their own seminar in the final year.

Once each year in the late autumn, a Research Postgraduate Colloquium is held which all MPhil and PhD students are expected to attend and to present the latest information on progress of their project to their peers, and learn about progress with the wide range of other projects at Harper Adams University. This will help to develop both presentation skills, and also the skill of understanding other research and how it could be improved.

### 3.2 Statistical training and advice

#### **Courses**

Research students needing a refresher on basic experimental design and statistics are able to attend any undergraduate classes from the Research Methods module running from October to May, in consultation with the Module Leader. Students may also be able to access postgraduate taught module.

### 3.3 Teaching Opportunities

1. Harper Adams University encourages research students to gain demonstration (lab, workshop, farm etc.) or classroom teaching experience as a means to:

- a. extend their own skills, particularly those related to effective planning and communication;
- b. share their research expertise with others through the taught curriculum.

This encouragement is intended to provide students with additional experience for their own professional development and is entered into on a voluntary basis; there is no requirement for research students to be involved in teaching undergraduate students. There are also opportunities for research students to contribute to the University's outreach work with schools and colleges, through running sessions on behalf of the Communications and Marketing team.

2. Students undertaking limited teaching or demonstrating duties, at their own choice, as part of their own personal development, will not normally be paid for doing so.
3. Students who are planning to gain teaching experience are required to:
  - a. undertake the relevant components of the in-house "Researchers who Teach" course to support them in planning and delivering effective learning activities.
  - b. students wishing to seek more extensive teaching opportunities on a contractual basis with a Head of Department would be expected to be working towards Higher Education Academy Associate Fellowship.
  - c. demonstrate excellent English listening and speaking skills with an IELTS score (or equivalent) of at least 7.0 in each of listening and spoken skills. Where a student does not hold an internationally recognised English language qualification, their English language skills will be assessed by a member of the International Student Support Office, normally through observation of a short micro-teaching session.
4. Students who undertake teaching or demonstrating activities to gain experience should be assigned a mentor to act as a source of advice, guidance and feedback. The relevant module leader would normally take on this role.
5. Where a Head of Department or the Director of Communications and Marketing wishes to retain the services of an MPhil or PhD student to support the teaching or demonstration programme on a contractual basis, this should be with the Director of Studies' agreement, taking into account the student's ability to manage their research programme and additional paid duties, within the time frame of their research project.



6. MPhil and PhD students are paid within the normal scale for undertaking demonstrating or teaching duties involving students registered on the Harper Adams' programme. They will be expected to have completed the "Researchers who Teach" course and be appointed a mentor by the relevant Head of Department. Payments for work undertaken through the Communications and Marketing team will be paid at a rate that is negotiated on an individual basis, based on the nature of the duties. Students whose studies are funded by a Harper Adams Studentship are limited to a maximum number of paid hours per year of 60 hours. Additionally, for full-time-students whose studies are not funded by a Harper Adams studentship, Directors of Studies would not normally support the student to exceed 60 paid hours of teaching per year.

## 4. Supervision and Research Student Responsibilities

### 4.1 Responsibilities of the Director of Studies

The Director of Studies and other supervisors on the supervisory team are responsible for the academic progress and pastoral or personal support of their students, and for dealing with administrative matters, including in relation to the University's Tier 4 visa sponsorship obligations for many overseas students. They should collectively provide the constructive guidance and support necessary for successful completion of the research project. This will include, as required:

- To establish at the beginning of the student's research, a framework for supervision, including arrangements for regular supervisory meetings.
- To define the role of each supervisor in the supervisory team.
- To meet the student regularly and frequently at the intervals agreed at the beginning of the research programme, and as amended during the duration of the project. Formal meetings must occur at least once a month (with normally no more than 42 days between supervisory meetings, unless the student has approved leave) and the Director of Studies must confirm the number and dates of formal meetings with the Research Office by the first working day of the next month and provide a copy of meeting action points agreed with the student. If no meeting has occurred, the Director of Studies must confirm why a routine meeting was not required, e.g. approved holiday of staff or student. Formal monthly meetings must continue until the student has finished their programme (i.e. they have been examined and completed any necessary corrections) or, in the case of visa-sponsored students, when visa sponsorship has ceased.
- To read, comment on and amend or annotate, if necessary, the notes of formal meetings circulated by the research student. (It is the responsibility of the student to form the Agenda for each research meeting, in consultation with the supervisory team, and to write-up action-based minutes at the end of each research meeting and circulate to the supervisory team). It is the Director of Studies' responsibility to make sure these notes are written and saved in the student's individualised folder, which is maintained by the Research Student Administrator, on the L drive for engagement monitoring purposes.
- To give assistance in defining and framing the topic of research.
- Subsequent to the initial approval by the Research Degrees Awarding Board (RDAB), where necessary, propose and justify any project title changes and associated subject code to the RDAB for its consideration. Any change of title for a

visa sponsored student, and associated classification (using the Higher Education Classification of Subjects [HECOS]), must be reported to the Home Office. Where a project title change makes such a necessity, Advanced Technology Approval Scheme (ATAS) certification must be requested from the Foreign and Commonwealth Office and received by the student before the change in title, subject code and ATAS certification, where required, can be confirmed and then notified to the Home Office.

- To make sure that the research project:
  - falls within the combined supervisory team's area of expertise.
  - is achievable and can be completed within the defined period of study.
  - is suitable and appropriate to the degree that the student intends to take.
- To familiarise the student with the project specific research training available and to liaise with the Researcher Developer on generic research training.
- To ensure that the student is aware of the safety and research ethics policies of the University that fall within the scope of the research study.
- To discuss any hazards both to the researcher and those others involved with the study including participants, associated with the research work and ensure that all suitable and sufficient risk assessments and, where applicable, COSHH assessments are completed.
- To respond promptly and constructively to written work, within the schedule agreed at the beginning of the project and amended as required during the project.
- To provide adequate support and guidance so that the student develops their oral presentation skills and facilitate the student's input into internal seminars and external conference presentations.
- To give advice to the research student on preparing the Colloquium abstract (and poster) and on practice presentation.
- To keep to the monitoring and reporting timetable as determined by the Research Degrees Committee. **NB Failure to submit reports to the Research Students Administrator by the due date, in the absence of extenuating circumstances, may be interpreted by the Research Degrees Awarding Board as grounds for terminating registration.**
- To approve expenditure from the student's conference, consumables and travel account.
- To ensure that examiners are nominated in good time, so that the examination can go ahead as soon as possible after submission of the thesis.

- To inform the Research Postgraduate Programmes Manager and Chair of Research Degrees Awarding Board in cases of serious lack of progress, including failure to submit minutes for supervisory meetings.
- Occasionally, advice given by different supervisors may be contradictory. When this occurs the Director of Studies should resolve the contradiction.
- To ensure that adequate cover is arranged if the Director of Studies is to be absent for a significant period.
- To discuss holiday arrangements sufficiently well in advance so as not to interfere with the research student's programme of studies, which is of particular importance for students on Tier 4 visas. The Director of Studies must sign the Research Student Absence Record in order to authorise the holiday to be taken. Holidays are allowed up to a maximum of six weeks (30 working days) a year, plus public holidays. University closure days e.g. between Christmas and New Year do not need to be taken as holiday.
- The Director of Studies will notify the Research Postgraduate Programmes Manager and Research Students Administrator of serious irregularities in attendance. This is especially important for visa sponsored students as the Home Office needs to be informed of unacceptable levels of unauthorised absence. A poor engagement record is likely to lead to visa sponsorship withdrawal.
- Approved extended periods of study away from the University must be supported by a robust monitoring procedure agreed in advance by the Director of Studies and Research Postgraduate Programmes Manager. Arrangements must incorporate the requirement to advise the Home Office of any change of location and, other than in exceptional circumstances, on the basis of serious illness or injury such that a student is incapacitated, monthly supervisions should take place on a face-to-face basis. Only exceptionally may a monthly supervision take place using an online video communication tool. Other than in exceptional circumstances, where a student's unauthorised absence reaches 60 days, their sponsorship will be withdrawn and the Home Office notified.

#### 4.2 Responsibilities of the MPhil and PhD Student

The MPhil and PhD Student should be aware of and comply with their responsibilities during the progress of their research project. These include, but are not limited to the following:

- To work conscientiously, ethically, safely and independently within the guidance offered. While it is important to keep the supervisors informed of progress and to

show work to them in line with an agreed work plan, students should be self-directed and self-managing.

- To participate fully in the induction programme and the research training provided by the University.
- To engage with the doctoral and researcher development opportunities offered by the University, including meeting with the Researcher Developer to explore development needs and to make use of the Researcher Development Framework Planner to record development activities.
- To complete suitable and sufficient risk assessments for their research work in accordance with departmental requirements and the Student Safety Handbook.
- To ensure that all research undertaken has been ethically approved and complies with all Ethics Requirements as defined by the University for the type of research project undertaken.
- To engage with supervisory meetings on at least a monthly basis, being well prepared and with a clear agenda of the discussion.
- To write notes from formal supervisory meetings of objectives to be pursued and action to be taken by student or by supervisor and to circulate to supervisors by the next working day.
- To discuss with their supervisors the form of guidance and kind of comment they find most useful.
- To take the initiative in raising problems or difficulties, however elementary or trivial they seem. Students as well as supervisors have a responsibility to initiate contact and raise questions.
- To maintain progress according to the timetable agreed with the supervisory team at the outset.
- To keep to the monitoring and reporting timetable as determined by the Research Degrees Committee. **NB Failure to submit reports to the Research Students Administrator by the due date, in the absence of extenuating circumstances, may be interpreted by the Research Degrees Awarding Board as grounds for terminating registration.**
- All non-native English speaking students, admitted on the basis of their IELTS scores or equivalent to pursue a research degree, will be assessed by the English Language Support Manager on arrival to evaluate whether they should subsequently be required to attend the English Language support classes provided on campus.
- To participate in the intellectual life of the University by attending and contributing to debate in research seminars and talks.

- To contribute to the annual Colloquium at the end of November/beginning of December, and to ensure that the supervisory team have had an opportunity to comment on the abstract (and poster) and a practice presentation well before the Colloquium.
- To present a research seminar.
- To liaise with the Web Design Manager (Ext 5385) in producing and updating an internet profile.
- To attend the quarterly meetings organised by the Postgraduate Research Student Representative(s).
- To keep a systematic record of all work attempted and accomplished (Research note book). All research should be conducted in accordance with the DEFRA Joint code of practice for research (JCoPR) <https://www.gov.uk/government/publications/joint-code-of-practice-for-research-jcopr> (also, see Chapter 3, Conducting a research project. PSBS, RJ Beynon, Portland Press, 1993, ISBN 185578 0097, or Practical Skills in Biology, Jones, Reed and Weyers, 3rd Edition, 2003, ISBN 013045141X).
- To write regular reports for the Research Degrees Awarding Board as determined by the Research Degrees Committee.
- By the end of the first year students should have engaged with the research project sufficiently to:
  - have the area of research defined and the scope of the project determined,
  - be clear on the methodological approach that is planned and have a clear rationale for why the approach is appropriate and valid,
  - dependent on the type of research being undertaken, and thus where appropriate, have completed the baseline literature review and have a plan in place to ensure emergent literature in the field is identified and considered in the context of the project being undertaken, (Note the type of literature review – narrative, systematic, critical etc. needs to be valid for the research methodology being considered),
  - have determined the research gap in which their study is posited and have developed research questions, research aim and objectives and where appropriate hypotheses that are to be tested,
  - to be acquainted with the necessary background knowledge, and information to undertake the first year project phase,
  - have carried out initial work to frame the overall study dependent on the methodological approach. This could include: initial data collection and

analysis, critical or systematic literature review and secondary data analysis to inform further empirical study or aid research model development, or testing of novel methodological approaches in order to inform their use in the second year of the study.

- have reflected critically on progress to date and how their personal approach to research may need to be refined or developed,
  - have a provisional framework for the continued progress of the research,
  - have a timetable for the rest of the research period.
- To present written material in time for comment and discussion before proceeding to the next stage. Students should see the “Guide to Report Writing” available on the University’s Intranet under Library Services. They should ensure that their English is good enough for the presentation of the thesis (see Chapter 4, Writing about your work. PSBS, RJ Beynon, Portland Press, and Practical Skills in Biology, Jones, Reed and Weyers, 3rd Edition, 2003, ISBN 013045141X).
- The Research Student will normally be expected to be in attendance at Harper Adams University during the normal registration period apart from visits connected with study or approved absence on holiday. When the student has started the writing-up period the Research Postgraduate Programmes Manager must be contacted to discuss office requirements and, for visa sponsored students, any continuing requirement for visa sponsorship which necessitates continuation of engagement monitoring arrangements.
- Holidays are allowed up to a maximum of six weeks (30 working days) a year, plus public holidays. University closure days eg between Christmas and New Year do not need to be taken as holiday. Holidays should be taken at times that do not interfere with the research student’s progress. Absence due to holidays, conferences and periods of research at other organisations must be agreed in advance with the Director of Studies and confirmed in advance with the Research Students Administrator through completion of the Research Student Absence Record.
- Absence through illness must be notified to the student’s Director of Studies and copied to the Research Students Administrator on the first day of absence. Absence through illness beyond five days must be supported by a ‘doctor’s note’ or equivalent. Continuing absence may result in the suspension of registration of the student, to be reviewed by the Research Postgraduate Programmes Manager and Director of Studies and, for visa sponsored students, considerations will also include the advice of the Visa Compliance Manager.

- Expenditure from the conference, consumables and travel account must be authorised by the Director of Studies.
- Any work, paid or unpaid, which the Research Student plans to undertake must be authorised by the student's Director of Studies, taking into account the student's ability to manage their research programme and additional paid duties within the time frame of their research project, as well as any visa sponsorship restrictions.
- Students in receipt of a Harper Adams University studentship are limited to a maximum of 60 hours of paid work per annum.
- The Research Student will be a member of the Staff Common Room, although a small charge is made to access the refreshments provided.

#### 4.3 Recording and Reporting Visa Sponsored Student Engagement in Supervisory Meetings and Administrative Sign-ins

##### **Monitoring Engagement with Supervisory Meetings**

Attendance monitoring obligations for visa sponsored Research students on MPhil and PhD programmes are detailed here. Students are required to attend a progress meeting with their designated supervisor on at least a monthly basis, face-to-face, other than in exceptional circumstances. Only, exceptionally is occasional supervision at a distance permitted and only normally where a student's change of location has been advised to the Home Office. The normal expectation is of face-to-face meetings. These meetings are required to take place for the duration of the sponsored student's registration and associated visa sponsorship period, even when the student enters the 'writing up', 'awaiting *viva voce* examination' or 'making corrections' periods of their studies. The meetings will be organised at times agreed between the supervisor and the student and where a student has an absence, any planned meeting should be rearranged to ensure that an alternative takes place no later than within a week of the original meeting. Details of the dated supervisory meetings will be documented and evidence provided to the Research Students Administrator on a monthly basis by the supervisor, in the form of an action plan and any relevant supporting notes. The Research Students Administrator is responsible for the collation of information in relation to supervisory meetings so that the Research Postgraduate Programmes Manager can monitor engagement records, with a view to take follow-up action where necessary.

Where the Director of Studies confirms to the Research Students Administrator that a meeting has not taken place as agreed and they have also been unsuccessful in reorganising a meeting within a week of the original date, the Research Postgraduate Programmes Manager will be notified by the Research Students Administrator. The



Research Postgraduate Programmes Manager will make immediate contact with the student to have a meeting to discuss the reasons behind their non-engagement. During this meeting, the Research Postgraduate Programmes Manager will discuss with the student the reasons behind their failure to meet with their supervisor and ensure that the student understands the importance of attending such meetings as required, in relation to programme success and fulfilment of their visa sponsorship obligations. 9The outcomes of this meeting will be documented and held by the Research Students Administrator for the student's visa sponsorship file and a copy sent to the [studentvisa@harper-adams.ac.uk](mailto:studentvisa@harper-adams.ac.uk) email address for the attention of the Visa Compliance Manager.

Where the Research Postgraduate Programmes Manager or designate is unable to make contact with the student within three days, investigations as to their whereabouts will be made and the Visa Compliance Manager will be informed that a student's visa sponsorship is at risk of withdrawal. At this point, the University will consider withdrawing visa sponsorship of the student. This will also be the case if, following a meeting with the Research Postgraduate Programmes Manager or designate, there is a concern over whether the student will continue to attend and engage with their course to a satisfactory level, including in relation to meeting deadlines for submitting work. Should this be the case, the student will be called to a formal review meeting by the Research Postgraduate Programmes Manager, with the Director of Studies and the Visa Compliance Manager in attendance (to advise on visa sponsorship obligations and visa curtailment procedures), and chaired by the Director of Learning and Teaching and International or designate.

The formal review meeting provides a student with the opportunity to make representations in relation to poor engagement. Where the student is able to provide satisfactory justification of their apparent poor engagement, which must be mitigated by good academic progress, they will be issued with a formal written warning which will clearly state any attendance conditions which need to be met to ensure continued registration and visa sponsorship. The formal review meeting outcomes will be recorded on the student's visa sponsorship file and copied to the [studentvisa@harper-adams.ac.uk](mailto:studentvisa@harper-adams.ac.uk) email address.

Where a student becomes in breach of any agreed outcome conditions arising from the formal review meeting or did not attend the formal review meeting, they will be withdrawn from the research programme by the Director of Learning, Teaching and International or designate. The Visa Compliance Manager will receive immediate notification of the visa sponsored student's withdrawal from the research programme from the Director of Learning, Teaching and International or designate through the [studentvisa@harper-adams.ac.uk](mailto:studentvisa@harper-adams.ac.uk) email address. Unauthorised absence of 60 days will normally result in immediate withdrawal of

visa sponsorship, unless there are clearly documented reasons to support continuation of studies.

The Visa Compliance Manager will notify the UKVI that the student has been withdrawn from their research programme within 10 days of the withdrawal. This will almost certainly lead to visa curtailment action by the Home Office and the student will be advised that they are required to leave the UK as soon as possible.

The student will have the right of appeal to the Vice-Chancellor within seven days of the date of the notification of their withdrawal from their course. Appeals should be made to the Vice-Chancellor, in writing, within 7 days of the date of notification of the outcome. The Vice-Chancellor will advise the Visa Compliance Manager of the appeal receipt using the [studentvisa@harper-adams.ac.uk](mailto:studentvisa@harper-adams.ac.uk) email address, so that the Home Office can be informed that an appeal is in progress. The Vice-Chancellor will review the evidence considered at the formal review meeting in conjunction with the appeal lodged by the appellant. Appeals will only be considered on the following grounds:

- Procedural irregularity;
- Unreasonable, disproportionate decision;
- New material evidence which was not previously reasonably available

The Vice-Chancellor will review all written documentation and may, at their discretion, invite the appellant to a meeting to discuss any points of contention and consult with other University staff and appropriate, external professionals. The outcomes of the appeal may include one from the following, non-exhaustive list:

- Appeal dismissed in which case the withdrawal of visa sponsorship, following the outcome of an appeal, will be confirmed to the Home Office so that it can commence visa curtailment actions.
- Decision overturned with the appellant permitted to resume their studies within the terms set out by the Vice-Chancellor and, in which case the Home Office will be advised that visa sponsorship has been resumed.

The Vice-Chancellor's decision in relation to the appeal is final and concludes the University's procedures. Once the University's appeals procedure has been exhausted, the student will be issued with a 'Completion of Procedures' letter and advised to contact the Office of the Independent Adjudicator for Higher Education (OIA) if they are dissatisfied with the outcome. The OIA will determine whether the student's complaint is eligible under its

rules. The student is able to complain to the OIA outside of the UK since its considerations are all desk-based.

### **Administrative Sign-Ins**

As part of Harper Adams University's Home Office sponsorship duties, international students on a Tier 4 visa are also required to register personal details monthly. You are therefore requested to come in person to the Research Office as follows:

- On the 1st Monday of October with your passport and visa. In addition to registering your attendance, copies of your passport, visa and leave stamps will be taken at this time each year and retained on your file.
- On the 1st Monday of each month to register your attendance, provide any changes to your passport/visa, UK home address and mobile phone number as well as signify that any paid or unpaid work that you plan to undertake has the authorisation of your Director of Studies and will comply with the working restrictions set out within your visa obligations.
- If you plan to be away from the University for holidays, conferences or very short periods of research at other organisations, this must be recorded in advance on the Research Student Absence Record, authorised by your Director of Studies and passed to the Research Students Administrator. If because of planned absence or illness you will miss the above registration dates, the Research Students Administrator must be informed accordingly and alternative arrangements made. Absence through illness in excess of five days must be supported by a 'doctor's note' or equivalent which must be sent to the research office.

#### **4.4 Health and Safety**

All students receive Health and Safety instruction during their induction period.

Work which takes place in the Laboratories must be agreed by the Laboratory Manager who will require copies of COSHH assessments and risk assessments before work commences.

The Health and Safety Officer (Ext 5021) can be contacted for general issues and advice in relation to Health and Safety. Students should notify their Directors of Studies of any health and safety issues which arise during the research programme in order that they may be addressed. Students working out of hours must complete and submit an 'Out of Hours Access' form, available from the Laboratory Manager. Risk Assessments must be completed for all Laboratory based work which will be approved by the Laboratory Manager. Lone worker alarms are available from Security (Porters' Lodge, Security Mobile 07980 061128)

for students required to work on University property out of hours. Lone worker alarms are also available from the Library helpdesk for use in the Laboratories. They must be signed for and returned after use. Students must submit details of any accident or near miss incident in which they are involved on a University Accident and Near Miss form (Laboratory Manager's Office).

See the Student Safety Handbook @ <https://www.harper-adams.ac.uk/documents/Student-safety-handbook.pdf>

Where students are lone working off the University premises eg undertaking interviews in participant's homes, workplaces or other locations then a lone working risk assessment with associated protocols must be in place and be monitored for efficacy and refined as necessary.

Where students are undertaking research on third party premises then the Health and Safety Checklist must be completed and the health and safety procedures employed must be appropriate and ensure the safety of the students whilst undertaking research.

Where students are considering conducting research outside of the UK they must check that the university is able to provide adequate insurance to support such an activity. At the time of writing there are countries where travel insurance etc cannot be provided.

## 5. Monitoring Schedule

Students' progress throughout their research programme is formally monitored by the Research Degrees Awarding Board.

Student and supervisors should have regular meetings at which academic advice is given and through which progress is monitored. Written records of these meetings should be kept in the form of action minutes. This is particularly important at the beginning of the research project. The frequency of meetings should be agreed between the student and supervisor at the initial supervisory meeting. Meetings should be frequent (at least weekly) in the early stage of the project. After the four month progress meeting, depending on student progress and the requirements of the study, monthly meetings may be sufficient.

Failure to submit monitoring forms on time or attend a *viva voce* will be taken into consideration by the Research Degrees Awarding Board when making decisions about student progression.

All forms are available electronically from the Harper Adams portal or the Research Students Administrator.

### 5.1 Registration and period of study

Students are required to complete an on-line Enrolment Form for Harper Adams University to enable their details to be held on the SITS system. Students are required to update this annually.

An offer of admission and subsequent enrolment as a research student are preliminary procedures before an application to register for a research degree can be submitted. Admission and enrolment do not guarantee that registration will be successful.

It is expected that students complete the Harper Adams University Registration Form for a Research Degree (SR1) including Gantt chart, normally within six weeks of commencing their studies (see Section 6.3.8 Academic Quality Manual). Detailed guidance on the preparation of the research proposal will be provided at Induction.

Students starting projects with a well-defined programme of work, eg AHDB studentships, must submit the SR1 within six weeks of commencing their studies. Where the programme of work is less well defined at the start of the project, students may, if required, complete form SR1D requesting a longer period for the preparation of the research proposal.

If the Registration Form is incomplete or not in the correct format, it will be returned to the student for correction before being submitted to the Research Degrees Awarding Board.

Following consideration of the SR1 by the Research Degrees Awarding Board, the student may be registered for an unspecified research degree. If the Research Degrees Awarding Board considers that the proposed research is unlikely to be suitable for a research degree, the applicant will normally be asked to submit a revised proposal. If there are any aspects of the SR1 which do not clearly explain how a successful thesis submission will eventually occur, then the Board may request clarification.

MPhil and PhD students should inform the Research Students Administrator of the date when they have completed the majority of their data collection and analysis and the main focus becomes writing their thesis.

The Research Degrees Awarding Board may defer decision on progression for any student in debt to Harper Adams University for tuition fees.

#### 5.1.1 Period of study

The periods of study for full-time and part-time students are outlined below.

##### **Full-time students**

Degree	Minimum	Normal	Maximum before submission
MPhil	1 year 3 months	2 years	3 years
PhD	2 years	3 years	4 years

##### **Part-time students**

Degree	Minimum	Normal	Maximum before submission
MPhil	2 years	4 years	5 years
PhD	3 years	5 years	6 years

There are no exemptions from the minimum periods of study and registration cannot be back-dated to take account of research already completed.

#### 5.1.2 Extensions to maximum study periods

Exceptionally, the Research Degrees Awarding Board may consider requests for extensions to the maximum periods of study for full-time and part-time students. Requests must be made in writing to the Research Students Administrator by way of form SM10 Mitigating Circumstances Request, and will be considered at the next meeting of the Research Degrees Awarding Board. The length of time requested, along with a time-table for completion, should be realistic to allow time for completion and submission, as it is unlikely

that further extensions will be granted. The maximum period of extension is twenty four months. Requests for extensions will be considered with reference to the Arrangements for Claiming Mitigating Circumstances Policy available at the following link:

<http://harper.ac.uk/keyinfo>

#### 5.1.3 Suspending registration

In certain circumstances the Research Degrees Awarding Board will consider a request (form SM9) from students to suspend their studies. Periods of suspension of three, six, nine or twelve months may be requested. Periods of suspension must be requested in advance and do not count towards the maximum permitted periods of study. For full-time students, the maximum period of suspension is normally twelve months in total, and for part-time students the maximum period of suspension is normally twenty four months. The circumstances will then be reviewed at the end of this period by the Research Degrees Awarding Board. Requests for suspensions will be considered with reference to the Arrangements for Claiming Mitigating Circumstances Policy available at the following link:

<http://harper.ac.uk/keyinfo>

#### 5.1.4 Withdrawal

Students who wish to withdraw their registration must inform the Research Students Administrator by completing form SM13. This will then be considered by the next meeting of the Research Degrees Awarding Board. The date of withdrawal is usually the date certified by the Research Degrees Awarding Board. Any fees paid for the year are normally not refundable.

#### 5.2 Ethical Issues

In all the work you carry out for your research project you are expected to behave in an ethical manner. Ethics is concerned with: what is right or wrong in human conduct; what is good or bad in human conduct; the recognition of a right or rights; concepts of respect for others and for justice.

The ethical issues all researchers need to consider are dependent on their type of research and the methodologies involved eg working with animals, human participants etc. However it is incumbent on the supervisory team and the student to ensure:

- Integrity of the research process employed.
- Honesty and transparency in data handling and reporting, including the publication of research papers and presentation of results at conferences.

- Involvement with external organisations that demonstrate integrity and ethical behaviour at all times.

Dependent on the type and scope of research, ethical considerations may be one or more of the following:

- Protection of researchers, participants, subjects, and others who may be affected by the research, from eg harm, loss of anonymity, etc.
- Animal well-being and welfare.
- Protection of the environment.
- Safeguarding research data and preventing its misuse.

Harper Adams University's Ethical Policy is available on the University's intranet site.

On-line completion of this form is essential. This form is available on <http://archive.harper-adams.ac.uk/research-ethics/researcher.cfm> For security purposes you will be asked to provide your email address and a password (letters and numbers only). You can return to the form as many times as you wish. You will get the opportunity to access the guidance notes from within the on-line form.

You cannot proceed with primary data collection until you have gained both ethical and project approval. You are advised to discuss the ethics form with your supervisor to ensure that you have fully considered ethical issues associated with your research project, its design, the methods of data collection and analysis, the use of results, etc.

### 5.3 Initial supervisory meeting (Form SM1)

The first meeting between student and supervisors is particularly important in establishing a provisional framework for future support and for getting the academic work off to a good start. It is mandatory for all supervisors to either be physically present at the meeting or be in communication with the meeting by skype, video conference or telephone conference. During the meeting the supervision monitoring form SM1 and the provisional three year project plan should be completed and a copy of each should be retained by both the student and the supervisor(s). The original should be sent to the Research Students Administrator.

### 5.4 Six month progress meeting (Form SM2)

Before this meeting the student should compile a brief progress report (approximately 300 words) for discussion at the meeting on form SM2. The report should outline the work completed, including the sections of the literature review which have been written, and detail any delays or changes which have been made to the provisional project plan agreed at the initial meeting. It should also include a schedule of proposed work for the remainder of year



one and observations on the general arrangements for support eg: supervision, frequency of contact with supervisor(s) and adequacy of library, laboratory, and office facilities.

At the end of the meeting the supervisory team should add their comments to form SM2 and a copy of the form should be retained by both the student and the supervisors and the original should be sent to the Research Students Administrator.

It is important to note that there is a specific requirement for the supervisory team and the student to consider both health and safety requirements and ethical approval as part of completion of the SM2 and to make note of points of significance to the project.

NB For part-time students, this report will be the First Annual Progress Report.

#### 5.5 Optional interim progress meeting (Optional Form SM8)

After the six month meeting the student should be demonstrating the research capability to be evaluated through the Specific Degree Registration year report and viva. Any concerns of the supervisors with student progress at any time should be drawn to the attention of the student with advice given on the Interim Progress Report (SM8). The SM8 will be submitted to the Research Degrees Awarding Board.

#### 5.6 Specific Degree Registration report and viva voce examination (Forms SM3, SM4, SM5, SM6, SM16)

##### 5.6.1 Overview

Towards the end of the first year, the student is expected to have completed the literature review and conducted some experimental work or data collection. The aim of this specific degree registration report is to demonstrate **selected parts** of this work.

Eleven months after registration the student shall submit a report in two parts. The first part should be a complete review of literature related to their research and the second contain a distinct element of their research programme to date. Examiners are only expected to assess the student's progress by reviewing a section of the literature review. **It is a requirement to append copies of the RDF Action Plan and Evidence Report, together with an up-to-date Gantt Chart, to the end of the Specific Degree Registration Report.** Following submission the student will be given a viva voce by two members of staff. One of these will be a member of the Research Degrees Awarding Board. The other examiner will be a member of staff experienced in the student's general subject. Supervisors will be encouraged to attend the Specific Degree Registration report *viva voce* to assist, rather than restrict, the student and the project. The examination of the Specific Degree Registration report is an important progression point and students are expected to submit the report on

time. If mitigating circumstances occur during the first year which may delay submission (e.g. loss of an experiment through animal or crop disease) and require an extension of the submission date, these must be specified on form SM16. This must be submitted no later than one month before the due date.

#### Learning Outcomes for Specific Degree Registration Report

1. Produce a coherent and appropriately structured report;
2. Critically evaluate a range of appropriate secondary sources;
3. Synthesise a hypothesis/hypotheses or research question(s) to evaluate a stated objective(s);
4. Select and/or develop suitable research design and methodologies;
5. Analyse data using appropriate techniques;
6. Present and interpret results in an informative manner;
7. Critically appraise results in relation to published work and proposed work plan.

Following the *viva voce*, a recommendation will be made by the examiners regarding the student's specific degree recommendation. The possible outcomes of the viva are:

1. Report and viva are satisfactory (continue registration).
2. Report and viva are unsatisfactory (defer decision on registration until a satisfactory revised report submitted and a satisfactory second viva).
3. Report and viva unsatisfactory for PhD but adequate for MPhil (register for MPhil).
4. Report and viva unsatisfactory for MPhil and very unlikely to reach standard after revision (Deregister).

The student's Director of Studies and second supervisors must complete Forms SM5 and SM4 (Annexes 6.09.5 and 6.09.4), respectively, recommending the student's specific degree registration and submit these along with SM3 (the student's Specific Degree Registration Report) to the Research Degrees Awarding Board for approval. Forms SM5 and SM3 will be made available to the examiners of the Specific Degree Registration report in advance of the *viva voce*. If the specific registration is approved, Form SM6 is signed by the Chairman of the Research Degrees Awarding Board.

All specific degree registration and second year reports and final theses will be scrutinised by the Turnitin plagiarism software. It will therefore be necessary to submit electronic versions of the reports as well as hard copies.

### 5.6.2 Format of the Specific Degree Registration Report

1. **Word Limit:** There is no word limit with respect to the literature review. The remainder of the report should be no more than c. 4,000 words, excluding tables, figures, references and appendices. Appendices may be used if necessary, for example, to include tabulated data which supports the main text but which is not essential to understand it. Two hard copies and an electronic copy in MSWord of the report should be submitted to the Research Students Administrator.
2. **Declaration and Acknowledgement:** You must include a statement declaring that the work is your own and acknowledge in a list the assistance you have been given by others in your research to date. This could include assistance with field or laboratory work, data collection, statistical analysis, agronomy or husbandry.
3. **Format:** The report must be typed or word-processed on white A4 (297 mm x 210 mm) paper of good quality and sufficient opacity. Paper of at least 70 mg/m<sup>2</sup> is suitable. Only one side of the paper should be used. Margins should be set as follows:

Left margin (binding edge) 40 mm

Right hand 15 mm

Top and bottom margin 20 mm

Line spacing of 1.5 should be used.

Use Arial 12 point font.

Text should not be fully justified.

The title page should show the registered title of the research programme and student's full name, centred in block capitals, followed by 'Submitted as a Specific Degree Registration Report' with date of submission.

Pages must be numbered consecutively, through the main text and appendices, including photographs, tables and figures that are not embodied in the text. Page numbers should be located centrally at the bottom of the page. Tables should be numbered in a continuous sequence throughout the text or on a sequence based on chapter numbers, for example, Table 3.1. Graphs, photographs should be similarly numbered. Tables and figures should also have brief descriptive titles stating clearly what they are.

It is essential to ensure that figures etc comply with copyright law. If permission to reproduce figures etc from other sources has not been obtained, then only

substantially modified versions of figures etc should be included and the adaption from the original source should be highlighted in the caption as well as the rationale for modifying the figure being contained in the associated text.

### 5.6.3 Content

The report should be written in your own words and include the following sections.

1. **Abstract:** A short and concise summary of the main findings, to a maximum of 250 words. It should include a statement of the problem investigated, brief description, key results and findings, conclusions and suggestions for further study.
2. **Literature Review:** A critical assessment of published research to date, referring to the main previous studies and methodologies adopted by other researchers. You are encouraged to avoid the repeated use of the popular press, standard textbooks and non-refereed internet sites.
3. **Introduction to data collection:** Explains the rationale for the work, its context in the literature, the methodology used and the data, material, subjects or organisms chosen. It should also include a central hypothesis to be tested or a research question.
4. **Data and Methods:** Explains the methodology and the rationale for the choice of methods, including details of statistical analyses employed, where used. This section should contain sufficient detail to allow for the work to be considered in terms of validity and repeatability. Only describe methods for which data is presented in the next section, but in order to contextualise the overall research work a flow diagram may be included to position this initial stage of work in the wider research methodological approach.
5. **Results:** Display and describe the data obtained, with supporting use of statistics as appropriate to the methodology employed. This section should be presented in a clear and logical sequence, using an easily assimilated format. Consider how best to contextualise the data in terms of the methodology employed. For example, graphs often present findings in a clearer fashion than tables, and small tables are preferable to large ones. Do not discount negative or contrary results. Avoid the inclusion of raw data or methods of calculation; these may be included in an appendix, if absolutely necessary. Tables and figures should be numbered sequentially, have appropriate legends and clearly identified axes and columns. Use of SI units is encouraged throughout. Avoid presenting the same data as both graphs and tables. Where quotations are used in the presentation of qualitative data limit those in the main body to exemplars of key themes or findings or to inform conceptual or thematic maps developed to inform understanding in the discussion

section. If deemed appropriate more in-depth synthesis of qualitative data can be included in appendices and signposted in the main body. In qualitative and mixed methodology studies it may be appropriate to include some form of analysis of the qualitative data in this section.

6. **Discussion:** This section should comment on the significance of the main findings, relate them to previous results and interpret them in relation to existing literature. It should include comment on the validity of the methodology used and how it may be improved in further experiments. It should avoid repetition of the results section and move from “What was found” to “what it means” in terms of argument development in the report.
7. **Conclusion:** Draws the main themes, discussion and findings together in a concise fashion.
8. **Recommendations for further study:** This section should include suggestions for how the research programme will build on the initial findings and progress to PhD. It should include a revised Gantt Chart for the remaining period with clear milestones.
9. **References:** Should contain details of all references and texts that you have cited in the text, providing sufficient information to enable the reader to find the references in the library or web. This section should be set out consistently, according to established conventions, for a journal to which you may ultimately submit a paper

#### 5.6.4 Feedback

The purpose of the specific degree registration report and viva is to:

1. ensure the candidate is aware of the standard of writing needed for MPhil or PhD as appropriate;
2. give practice of a Level 8 viva;
3. assess the candidate and project’s suitability for registration for the intended degree;
4. assess progress with the Doctoral Development Plan (DDP)/Personal Development Plan (PDP).

The examiners will agree a score (see below for scoring criteria) for each learning outcome and agree written feedback for the report to RDAB (SM6) on each outcome, together with written feedback on the viva and PDP/DDP.

Where a candidate scores 3, 4 or 5 for all learning outcomes, the recommendation will normally be ‘Register for PhD’.

Where there is at least one score of 2, and from the feedback provided formally and informally as a result of the viva the candidate clearly understands how improvements must be made for the final thesis, a report resubmission may not be needed. If it is not clear that feedback on how to improve has been understood or there is a score of 1, then a resubmission will normally be required. If resubmission is recommended, it must be explicit in the written feedback exactly what the candidate has to do for success in the resubmission. If a resubmitted report is assessed as having any scores of 1 or 2, then consideration will be given to either MPhil registration, even though the intended degree was PhD, or in extreme cases, deregistration.

### **Scores**

- 1 = No or little evidence on which to base a judgement on the learning outcome.
- 2 = Insufficient evidence of learning outcome in the report to indicate that the required standard is attainable.
- 3 = Sufficient evidence that learning outcome could be met at the required standard with further study.
- 4 = Demonstrates learning outcome clearly (a **final** thesis at this level (7 or 8 as appropriate) may have minor amendments).
- 5 = Learning outcome completely achieved (a **final** thesis at this level (7 or 8 as appropriate) may still have some typographical and grammatical amendments).

The candidate will receive a copy of the written outcome of the viva voce examination (form SM6), along with reports from the supervisory team (forms SM4 and SM5). The candidate can expect from this process to obtain helpful comments on progress from both the supervisors and assessors to enable a realistic view of progress to be obtained.

#### 5.7 Second year viva report (SM14)

By the end of the second year, students are expected to show evidence of writing to the standard required by refereed academic journals and are required to submit a piece of scientific writing in the form of a draft refereed paper to the Research Students Administrator **stating clearly which journal it is intended to submit the paper to**. The Instructions for Authors for the intended journal should also be submitted with the draft paper. The paper must not have been submitted to the journal before the viva

takes place. This is because the purpose of the viva is to provide constructive feedback on writing the paper. The second year viva may take place earlier than the end of the second year to fit with the production and submission schedule of the second year paper. Although less desirable, it may be acceptable for a draft conference paper to be submitted in place of a draft refereed journal paper. The student is expected to give a draft copy of the paper to their supervisory team in time for them to make constructive suggestions for improvement before submission to the Research Students Administrator. **It is a requirement to append copies of the RDF Action Plan and Evidence Report, together with an up-to-date Gantt Chart, to the end of the Second Year Report.** The paper will be considered by the same two examiners nominated for the Specific Degree Registration Report viva voce. The viva will be used to discuss how the paper could be improved to increase the probability of acceptance. The examiners will act as referees and jointly write a brief, constructive report after the viva voce on the suitability of the paper for the target journal (SM14 End of Second Year Viva Report). The examiners will be expected to discuss with the student the student's progress with professional development and to report on this to the Research Degrees Awarding Board. Following consideration of the report by the Research Degrees Awarding Board, copies will be sent to the student and the Director of Studies. The original will remain on file in the Research Office.

NB For part-time students the draft paper must be submitted within 48 months of starting.

It is the responsibility of the corresponding author to send papers submitted to refereed journals to Kath Osborn, Library, in order for a complete database of publications from Harper Adams University to be maintained.

At the end of the second and each subsequent year an annual progress report on Form SM7 – Annex 6.9.7 is prepared by the supervisory team, submitted to the Research Degrees Awarding Board and, if satisfactory, signed by the Chairman of the Board and a copy is sent to the student and the Director of Studies.

#### 5.8 Annual progress (Forms SM7, SM7A)

The supervisory team must complete and submit a signed SM7 form at the end of the second year for full-time students and at the end of the first, third fourth and fifth years for part-time students. This is considered by the Research Degrees Awarding Board. Informal monitoring of progress takes place on a day to day basis through contact with the supervisory team.

When form SM7 has been completed and submitted by the supervisory team, the student is required to complete form SM7A which gives the opportunity to comment on their satisfaction or dissatisfaction of facilities and supervision. Both forms will be submitted to the Research Degrees Awarding Board for consideration.

#### 5.9 Final Year Progress Report (Forms SM15, SM15A)

Transfer to writing up status would normally be expected to occur at the end of the normal registration period. Students and Supervisors must notify the Research Office by completion of SM15 and SM15A once students have completed all practical work/empirical data collection. If this has not occurred within the specific time period, then the form should be completed and notification of when the writing-up status will start should be detailed.

Once a student enters the writing-up phase they should consider transferring to part-time study if they have other commitments on their time (see section 5.13). This will extend the time available for writing-up before thesis submission. International students on a Tier 4 visa are not permitted to transfer to part-time study.

#### 5.10 General advice on presenting a research seminar at Harper Adams

All research students are expected to present a research seminar in their third year. Seminars normally start at 1.10 pm (usually in room M47 in the Main Building) with each speaker allocated 15 minutes plus 5 minutes for questions.

The two most important aspects to consider in planning your seminar are:

1. There will almost certainly be a wide range of subject disciplines amongst the audience. If you are a biologist, you may be talking to social scientists and vice versa. Ensure your title is short, simple and free of technical words, to attract people to come to the seminar. The key to helping everyone understand your seminar is to spend at least 5 minutes explaining the context, importance and purpose of your research. Only present general methodology, not detail of methods. At the end make clear what the outcome has been and what the next steps are.
2. It needs practice to keep to 15 minutes. Please ensure you practise at least once, ideally to one or more experienced colleagues or supervisors. Aim to have no more than about 15 slides for a 15 minute presentation.

#### 5.11 Preparing the thesis

Detailed guidance on presentation of the thesis is given in the Examination Regulations (AQA Manual Annex 6.13). The style of the thesis may be **either** as a sequential description of the work undertaken **or** a series of self-contained papers, usually presented as individual



chapters, each of which may have been submitted for publication or be subsequently submitted. Whichever style is adopted the thesis must be a coherent report of the work to be examined. If the latter is adopted, it is important that the full references of published papers are included, and information on the status of papers submitted, but not yet published is included. The form in which the paper is presented in the thesis **must** comply with the copyright agreement for each publication, eg pre-print (version submitted, excluding referee suggested changes and editing). A useful source of information is the RoMEO facility at [www.sherpa.ac.uk](http://www.sherpa.ac.uk)

Whichever style of thesis is adopted, no material copied from another source can be included unless **either** permission from the copyright holder has been obtained and is stated, **or** the material has been substantially adapted, eg by redrawing a figure in a completely different format such as bar chart instead of a table.

#### 5.12 Submission and examination (Forms SE1PhDMPHil, SE1Publication, SE2PhDMPHil, SE2Publication, SE3PhDMPHil, SE3Publication, , SE4PhD, SE4PhDPublication, SE4MPHil, SE4MPublication, SECV, SE5)

Approximately 6 months before the expected submission of the thesis, the examination panel is nominated by the Director of Studies (form SE1PhDMPHil or SE1Publication). The Research Degrees Committee considers the nominated examination panel (forms SE1PhDMPHil or SE1Publication and SECV) before form SE1PhDMPHil/SE1Publication is signed by the Chair of the Research Degrees Committee. The examination arrangements must be approved by the Harper Adams University Research Degrees Committee before the submission of the thesis.

Students are required to complete a Student Declaration (form SE2PhDMPHil or SE2Publication), at the time they submit their thesis.

The examiners produce individual pre-viva reports (SE3PhDMPHil/SE3Publication) and a joint report post-viva (SE4PhD/SE4PhDPublication/SE4MPHil/SE4MPHilPublication).

Details of the examination procedures are available in the Examination Regulations on the Harper Adams portal, AQA Manual, or from the Research Students Administrator.

When the final thesis is approved by the Research Degrees Awarding Board, Form SE5, Library Authorisation, must be completed.

#### 5.13 Changes in mode of study or supervisor

Any changes to the original registration, eg mode of study from full-time to part-time or from part-time to full-time or the supervisory team, should be submitted to the Research Degrees Awarding Board for approval on the appropriate forms (SM11 or SM12, respectively).

#### 5.14 Destination of Leavers from Higher Education Survey

All leavers will be contacted by letter in the Autumn or Spring after their graduation by University staff collecting information for the Destination of Leavers from Higher Education Survey. You will be contacted by letter initially, and then followed up by telephone or e-mail if your response is not received. Please could you take ten minutes to help us by filling out this short survey. Your answers help us to find out what our graduates are doing, and how useful you found your course in preparing you for employment or further study.

#### 5.15 Public dissemination of your project results

It is likely that your project may be of interest beyond Harper Adams University and that you may be considering disseminating information about the project. **It is essential that your supervisory team is consulted before any form of formal communication about your project outside Harper Adams University takes place.** This includes: publication in scientific journals, presentation at conferences, presentations to other organisations, entering into a dialogue with any communication professional, posting any information from your project on any form of internet site. If a scientific publication is contemplated, the Principles of Good Research Practice must be followed, see Appendix 4 on page 67.

If agreement to dissemination has been obtained from your supervisor, the Harper Adams University Marketing and Communications Department **must** be informed of any proposed press or media contact.

**6. Academic Appeals Policy, Academic Misconduct Policy and  
Complaints Procedure**

The above policies and procedures are available at

<http://harper.ac.uk/keyinfo>

APPENDIX 1a: ASSESSMENT AND MONITORING FOR FULL-TIME RESEARCH STUDENTS COMMENCING IN SEPTEMBER/OCTOBER

	Task Name	Responsibility for Action	Year 1				Year 2				Year 3				Year 4
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
1	SM1 Initial Supervisory Meeting Report	Student and Supervisory Team	█												
2	SR1 and CVS1s Application to Register	Student and Supervisory Team	█												
3	Colloquium Abstract Yr 1	Student and Supervisory Team		◆											
4	SM2 Six Month Progress Meeting Report	Student and Supervisory Team	█	█	█										
5	SM3 Specific Degree Registration Report SM4 Specific Degree Registration Report SM5 Specific Degree Registration Report SM6 Specific Degree Registration Report	Student Supervisors Director of Studies Examiners	█	█	█	█									
6	Refereed/conference paper SM14 Second Year Viva Report	Student Examiners					█	█	█	█					
7	Colloquium Abstract Yr 2	Student and Supervisory Team						◆							
8	SM7 Annual Progress Report SM7A Annual Progress Report	Student and Supervisory Team									◆				
9	SE1 Examination Panel Nomination	Director of Studies								█	█	█			
10	Colloquium Abstract Yr 3	Student and Supervisory Team										◆			
11	SE2 Student Declaration/ Submission of Thesis	Student, Director of Studies and Supervisory Team											█	█	
12	SE5 Library Authorisation	Student to submit within 1 month of PhD conferment date													◆
13	If Thesis not submitted, SM15 Annual Progress Report SM15A Annual Progress Report	Supervisory Team Student													◆

If thesis is not to be submitted by end of year 4, an extension of registration period needs to be approved by HAU RDAB before the original registration expiry date.

APPENDIX 1b: ASSESSMENT AND MONITORING FOR FULL-TIME RESEARCH STUDENTS COMMENCING IN MARCH/APRIL

	Task Name	Responsibility for Action	Year 1		Year 2				Year 3				Year 4			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1	SM1 Initial Supervisory Meeting Report	Student and Supervisory Team		■												
2	SR1 and CVS1s Application to Register	Student and Supervisory Team		■												
3	Colloquium Abstract Yr 1	Student and Supervisory Team														◆
4	SM2 Six Month Progress Meeting Report	Student and Supervisory Team		■	■											
5	SM3 Specific Degree Registration Report SM4 Specific Degree Registration Report SM5 Specific Degree Registration Report SM6 Specific Degree Registration Report	Student Supervisors Director of Studies Examiners		■	■	■	■									
6	Refereed/conference paper SM14 Second Year Viva Report	Student Examiners						■	■	■	■					
7	Colloquium Abstract Yr 2	Student and Supervisory Team														◆
8	SM7 Annual Progress Report SM7A Annual Progress Report	Supervisory Team Student														◆
9	SE1 Examination Panel Nomination	Director of Studies										■	■	■		
10	SE2 Student Declaration/ Submission of Thesis	Student, Director of Studies and Supervisory Team													■	■
11	Colloquium Abstract Yr 3	Student and Supervisory Team														◆
12	SE5 Library Authorisation	Student to submit within 1 month of PhD conferment date														◆
13	SE5 Library Authorisation	Student to submit within 1 month of PhD conferment date														◆
14	If thesis not submitted, SM15 Annual Progress Report SM15A Annual Progress Report	Supervisory Team Student														◆

If thesis is not to be submitted by end of year 4, an extension of registration period needs to be approved by HAU RDAB before the original registration expiry date.

APPENDIX 1c: ASSESSMENT AND MONITORING FOR PART-TIME RESEARCH STUDENTS COMMENCING IN SEPTEMBER/OCTOBER

Task Name	Responsibility for Action	Year 1		Year 2				Year 3				Year 4				Year 5				Year 6			
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
1 SM1 Initial Supervisory Meeting Report	Student and Supervisory Team	█																					
2 SR1 and CVS1s Application to Register	Student and Supervisory Team	█																					
3 Colloquium Abstract Yr 1	Student and Supervisory Team	◆																					
4 SM2 Six Month Progress Meeting Report	Student and Supervisory Team	█	█	█	█																		
5 Colloquium Abstract Yr 2	Student and Supervisory Team					◆																	
6 SM3 Specific Degree Registration Report SM4 Specific Degree Registration Report SM5 Specific Degree Registration Report SM6 Specific Degree Registration Report	Student Supervisors Director of Studies Examiners					█	█	█	█														
7 Colloquium Abstract Yr 3	Student and Supervisory Team								◆														
8 SM7 Annual Progress Report (three years) SM7A Annual Progress Report (three years)	Supervisory Team Student									◆													
9 Colloquium Abstract Yr 4	Student and Supervisory Team									◆													
10 SM7 Annual Progress Report (four years) SM7A Annual Progress Report (four years)	Supervisory Team Student												◆										
11 Refereed/conference paper SM14 Second Year Viva Report	Student Examiners									█	█	█	█										
12 Colloquium Abstract Yr 5	Student and Supervisory Team													◆									
13 SM15 Third Year Progress Report (five years) SM15A Third Year Progress Report (five years)	Student Supervisors													█	█	█	█						
14 SE1 Examination Panel Nomination	Director of Studies																█	█	█	█			
15 SE2 Student Declaration/ Submission of Thesis	Student, Director of Studies and Supervisory Team																			█	█		
16 Colloquium Abstract Yr 6	Student and Supervisory Team																			◆			
17 SE5 Library Authorisation	Student to submit within 1 month of PhD conferment date																				◆		

If thesis is not to be submitted by end of year 4, an extension of registration period needs to be approved by HAU RDAB before the original registration expiry date.

APPENDIX 1d: ASSESSMENT AND MONITORING FOR PART-TIME RESEARCH STUDENTS COMMENCING IN MARCH/APRIL

	Task Name	Responsibility for Action	Year 1		Year 2				Year 3				Year 4				Year 5				Year 6				
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
1	SM1 Initial Supervisory Meeting Report	Student and Supervisory Team	█																						
2	SR1 and CVS1s Application to Register	Student and Supervisory Team	█																						
3	Colloquium Abstract Yr 1	Student and Supervisory Team			◆																				
4	SM2 Six Month Progress Meeting Report	Student and Supervisory Team	█	█	█	█	█																		
5	Colloquium Abstract Yr 2	Student and Supervisory Team						◆																	
6	SM3 Specific Degree Registration Report SM4 Specific Degree Registration Report SM5 Specific Degree Registration Report SM6 Specific Degree Registration Report	Student Supervisors Director of Studies Examiners				█	█	█	█																
7	Colloquium Abstract Yr 3	Student and Supervisory Team											◆												
8	SM7 Annual Progress Report (three years) SM7A Annual Progress Report (three years)	Supervisory Team Student											◆												
9	Colloquium Abstract Yr 4	Student and Supervisory Team																							
10	SM7 Annual Progress Report (four years) SM7A Annual Progress Report (four years)	Supervisory Team Student																							
11	Refereed/conference paper SM14 Second Year Viva Report	Student Examiners											█	█	█	█									
12	Colloquium Abstract Yr 5	Student and Supervisory Team																							
13	SM15 Third Year Progress Report (five years) SM15A Third Year Progress Report (five years)	Student Supervisors																							
14	SE1 Examination Panel Nomination	Director of Studies																							
15	SE2 Student Declaration/ Submission of Thesis	Student, Director of Studies and Supervisory Team																							
16	Colloquium Abstract Yr 6	Student and Supervisory Team																							
17	SE5 Library Authorisation	Student to submit within 1 month of PhD conferment date																							

If thesis is not to be submitted by end of year 4, an extension of registration period needs to be approved by HAU RDAB before the original registration expiry date.

## APPENDIX 2: All training offered at Harper Adams University to MPhil and PhD students

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Induction	Getting a PhD at Harper Adams	<b>Martin Hare</b> , Research Postgraduate Programmes Manager, Assistant Head of Department, Crop Protection and Agronomy Section, Crop and Environment Sciences Department	A brief consideration of what a PhD, together with an outline of the key progression points.
Induction	Good Research Skills	<b>Peter Mills</b> , Deputy Vice Chancellor	To get students to think about the attributes of an effective researcher. To look at use of laboratory notebooks at Harper Adams.
Induction	Health and Safety Introduction	<b>Emma Osborne</b> , Health and Safety Officer	A brief introduction to health and safety and the key issues to consider from PPE to evacuation and hazards to COSHH.
Induction	Risk/CoSHH Assessment Exercise	<b>Victoria Talbot</b> , Laboratory Manager <b>Emma Osborne</b> , Health and Safety Officer	Joy, oh joy! A risk and COSHH assessment exercise...yawn... Admittedly it's not most people's cup of tea, but the ability to write risk and COSHH assessments is a vital and necessary skill that all researchers need to acquire, particularly because these assessments are required by UK law. Students watch a DVD on COSHH and then participate in a group exercise to complete a risk and COSHH assessment exercise. Paperwork for this is issued the day before at the Laboratory Introduction session to enable students to adequately prepare for this session.
Induction	Understanding Hazards, Risk and Assessments	<b>Emma Osborne</b> , Health and Safety Officer	This training will identify some common workplace hazards, and those hazards more difficult to identify. We will consider what to do about risks and look at how to measure it for inclusion to risk assessments. Students watch a DVD on risk assessment.
Induction	Introduction to the Library	<b>Kath Osborn</b> , Librarian	An introduction to using the physical and electronic library, the services and resources offered and how to access them. Also to establish contact with them as we are able to help them further with finding resources.



Induction	Introduction to RefWorks	<b>Kath Osborn</b> , Librarian	It provides an introduction to using Refworks, the reference management software provided by the University. It gives students an opportunity to set up their account and then concentrates on how to import records into Refworks from our principle resources using the Harper referencing style, finishing with how to create a bibliography using Refworks.
Induction	For Crops Students: Tour of Crops Facilities	<b>Grace Smith</b> , Trials Manager – Crop and Environment Sciences Department	What is expected of Crops students and facilities available (to include tour).
Induction	For Animals Students: Tour of Animals Facilities	<b>Richard Hooper</b> , Livestock Manager – Animal Production, Welfare and Veterinary Sciences Department	What is expected of Animals students and facilities available (to include tour).
Induction	For Engineering Students: Tour of Engineering Facilities	<b>Ian Moorcroft</b> , Associate Head of Engineering - Research, Engineering Department	What is expected of Engineering students and facilities available (to include tour).
Induction	Statistical advice	<b>Fabio Veronesi</b> , Lecturer in Statistics and Data Analysis	The provision of statistical advice
Induction	Research Ethics	<b>Frank Vriesekoop</b> , Chair of Research Ethics Committee	An outline of the ethics procedures at HAU.
Induction	Accessing English language support through classes and tutorials	<b>Stephen Giles</b> , English Language Support Manager	An overview of the main language-based challenges faced by researchers working in English as a second language. In addition to an overview at induction, language support is provided throughout study in the form of individual tutorials and evening classes.
Induction	Overview of good academic practice	<b>Jon Bentley</b> , Academic Development and Guidance Tutor	An overview of good academic practice.
Induction	Tier 4 visa briefing and living in the UK	<b>Kai Ma</b> , International Officer	A briefing on Tier 4 visa and an introduction to living in the UK.
Induction	Major stages in research	<b>Peter Kettlewell</b> , Research Co-ordinator/Professor of Crop Physiology – Crop and Environment Sciences Department	To assist young researchers in formatting their program of work, by providing them with a logical set of key stages. Suggestions are made concerning the best use of the time of the researcher and the value of Gantt Charts.
Induction	The Research Proposal	<b>Nicola Randall</b> , Chair of Research Degrees Awarding Board/ Senior	Aim: To clearly indicate what is required within the SR1 form. Session includes a run through the form section by section identifying what information should be provided by

		Lecturer in Countryside Management – Crop and Environment Sciences Department	the student and the supervisor. Provides students with guidance as to what information is required by RDAB and how they can avoid issues with registration. Includes detail on what required on the GANTT chart.
Induction	Doctoral Development Programme	<b>Claire Toogood</b> , Researcher Developer for Research Students	Personal Development Programme – An introduction to personal development for research students at Harper Adams University, including an overview of the potential development activities available, and of the framework used to record and review these activities. At the end of this session you should have a clear understanding of what is expected of you in terms of personal development, and of the support offered to help you achieve this.
Induction	Hints and tips on how to make getting your PhD easier	<b>Marie Kirby</b> . Postdoctoral Researcher	This session gives you a realistic understanding of the process of doing a PhD at Harper Adams University. In the session, I will give you my experience as a PhD student at HAU including topics such as the importance of the first year, writing the mandatory reports, the importance of planning, handling experiments in the labs, writing your final thesis and the social life. Also, it will cover from a more general point of view a few points about the supervisory team, managing our own time and managing people.
Induction	Laboratory introduction	<b>Victoria Talbot</b> , Laboratory Manager	Introduction to the Princess Margaret Laboratories, the university's centralised laboratory service support team – our location, role and remit; the technical team; our services to PhD students; H+S video; location of the 'Princess Margaret Laboratories - Guide for Researchers'; intro to and issuing of the 'Blue' Health and Safety Folders; issuing of preparatory materials for the subsequent risk and COSHH assessment exercise. The vast majority of research students make use of the laboratories and this session aims to give a quick overview of who we are, what we do, what you need to be aware of and what you need to be able to produce good data.  Even non-laboratory students will find this of interest.
Induction	Lab Skills Training Sessions Part 1	<b>Victoria Talbot</b> , Laboratory Manager, and the Laboratory Team	A series of short training sessions run back-to-back during a full working day. The aim is to provide a comprehensive induction to the various laboratory skills that the majority of PhDs will need. Initials in brackets relate to the members of the Laboratory Team. Sessions run are: Choice and Use of PPE (JC); Effective Use of Fume Cupboards (KJ); Safe Transportation of
	Lab Skills Training Sessions Part 2		

			Liquids and Using Chemical Spill Kits (AA/RF); Choosing and Using Disinfectants (RP); * <b>Centrifuges (AA)</b> ; Pipettes; Basic Use of Compound and dissecting microscopes (RP); Balances; Lone Worker Alarms (VT). * <b>Now compulsory for all PhD student lab workers. A certificate of attendance is issued.</b>
Induction	Good Laboratory Practice	<b>Simon Edwards</b> , Professor of Plant Pathology – Crop and Environment Sciences Department	The principles of Good Laboratory Practice (GLP); The benefits of applying GLP; How GLP is applied within a research laboratory.
Induction	Use of Research Notebooks	<b>Paul Hand</b> , Reader – Crop and Environment Sciences Department	Where to get a research notebook and how to use it, including how to incorporate additional material and electronic data.
Induction	Introduction to Data Management and Gantt Charts	<b>Jon Harrison</b> , Technical Support and Business Liaison Officer – Information Services	Data management and Gantt Charts
Induction	A more systematic approach to reviewing the literature	<b>Nicola Randall</b> , Chair of Research Degrees Awarding Board/ Senior Lecturer in Countryside Management – Crop and Environment Sciences Department	Systematic reviews follow structured pre-defined methodologies in order to provide transparency and repeatability and avoid bias in literature reviews. Student reviews can be improved using lessons from these procedures.
	Experimental Design and Analysis	<b>Heather Campell</b> Lecturer in Entomology, Crop and Environment Sciences Department	An advanced module to provide an understanding of the principles, stages and techniques involved in the research process; an ability to identify research problems and formulate ideas; and an ability to analyse and present quantitative data.
	Advanced Research Methods – Genstat software	<b>Simon Edwards</b> , Professor of Plant Pathology – Crop and Environment Sciences Department	Introduction to data entry and analysis using Genstat Summary statistics and graphics Experimental design Analysis of Variance Regression analysis REML analysis
	Researchers who teach	<b>Lydia Arnold</b> , Principal Lecturer	This programme aims to: <ul style="list-style-type: none"> <li>• Give an insight in to teaching and learning in higher education</li> <li>• Provide an opportunity to learn about effective teaching and good practice</li> <li>• Introduce opportunities to develop further in teaching</li> </ul>

			The programme will be delivered in a series of short workshops. Participants on the course who go on to teach or support students in other ways will be invited to apply to for Higher Education Academy Associate Fellow award.
	Research Postgraduate Collquium	<b>Martin Hare</b> , Research Postgraduate Programmes Manager	An annual opportunity to develop your skills in preparing slides for a presentation together with gaining confidence in speaking to an audience (Years 1 and 3) and in designing and preparing a poster and explaining it to individual delegates (Year 2)
Research Postgraduate Development Programme 1 <sup>st</sup> years	Writing your Specific Degree Registration Report	<b>Martin Hare</b> , Research Postgraduate Programmes Manager, Assistant Head of Department, Crop Protection and Agronomy Section, Crop and Environment Sciences Department	The purpose and requirements of the report, the accompanying RDF action plan and the viva.
Research Postgraduate Development Programme 1 <sup>st</sup> years	Academic Misconduct and How to Avoid it	<b>Rob Wilkinson</b> , Principal Lecturer – Animal Production, Welfare and Veterinary Sciences Department	Plagiarism and how to avoid it.
Research Postgraduate Development Programme All years	Introduction to Social media	<b>Simon Leather</b> , Professor of Entomology – Crop and Environment Sciences Department	The importance of inline profile and potential impact, eg website, blogging, twitter, or promoting work and making new contacts.
Research Postgraduate Development Programme 1 <sup>st</sup> /2 <sup>nd</sup> years	Networking	<b>Laura Vickers</b> , Lecturer – Crop and Environment Sciences Department	What are the benefits of networking to your career? Developing strategies to improve your networking.
Research Postgraduate Development Programme 2 <sup>nd</sup> year	Publicising your Research	<b>James Armstrong</b> , Web Design Manager, and members of the Marketing and Communications Department	A 10-15 min presentation (using Prezi) on how to create an online researcher profile, and how to link this to research projects. This includes a presentation from our Press and PR team to talk about promoting research via new articles and video.
Research Postgraduate Development Programme 1 <sup>st</sup> years	Presentation skills for new PhDs prior to Colloquium and Poster Competition	<b>Simon Edwards</b> , Professor of Plant Pathology – Crop and Environment Sciences Department	Basic presentation skills for an oral presentation using Powerpoint and for a poster presentation.

Research Postgraduate Development Programme 1 <sup>st</sup> years	Undergraduate Honours Research project and Taught Postgraduate project supervision training	<b>Victoria Talbot</b> , Laboratory Manager	What and what not to do when working with HRP and MRP students in the laboratories.
Research Postgraduate Development Programme 1 <sup>st</sup> , 2 <sup>nd</sup> and 3 <sup>rd</sup> years	Critical Evaluation	<b>Nicola Randall</b> , Chair of Research Degrees Awarding Board/ Senior Lecturer in Countryside Management, Crop and Environment Sciences Department	How to critically evaluate literature to inform your studies.
Research Postgraduate Development Programme 2 <sup>nd</sup> years	Presentation Skills Training (for 2 <sup>nd</sup> year PhD students)	<b>Peter Kettlewell</b> , Research Co-ordinator/Professor of Crop Physiology – Crop and Environment Sciences Department <b>Martin Hare</b> , Chair of Research Degrees Committee/Associate Head of Department, Crop Protection and Agronomy Section, Crop and Environment Sciences Department <b>Nicola Randall</b> , Chair of Research Degrees Awarding Board/ Senior Lecturer in Countryside Management, Crop and Environment Sciences Department	An essential component of the PDP giving opportunities to present an outline of some of your work to experienced presenters and obtain valuable, systematic feedback on how to improve.
Research Postgraduate Development Programme 2 <sup>nd</sup> years	Writing Scientific Papers	<b>Liam Sinclair</b> , Professor of Animal Science – Animal Production, Welfare and Veterinary Sciences Department	This session discusses the importance of publishing to your career as a researcher, and examines in detail what Journal editors are looking for in a manuscript. It provides guidance and hints on ways to ensure that your manuscript is well written, discusses the review process and examines factors that contribute to success and failure.
Research Postgraduate	Navigating the Q&A	<b>Louise Manning</b> , Senior Lecturer in Food Policy and Management	Skills in presenting/dealing with questioning etc, particularly in preparation for potentially tricky questions.

Development Programme 2 <sup>nd</sup> /3 <sup>rd</sup> years			
Research Postgraduate Development Programme 2 <sup>nd</sup> /3 <sup>rd</sup> years	Writing and reviewing social science papers	<b>Keith Walley, International Programmes Co-ordinator</b>	Writing and reviewing social science papers
Research Postgraduate Development Programme 2 <sup>nd</sup> /3 <sup>rd</sup> years	Reviewing scientific papers for an academic journal	<b>Peter Kettlewell</b> , Research Co-ordinator/Professor of Crop Physiology – Crop and Environment Sciences Department	Reviewing papers at the request of a journal editor is an important part of an academic role. This session considers the key features of a good review of a scientific paper to help an editor make a decision.
Research Postgraduate Development Programme 3 <sup>rd</sup> years	Planning the Thesis and the Viva	<b>Peter Kettlewell</b> , Research Co-ordinator/Professor of Crop Physiology – Crop and Environment Sciences Department <b>Lucy Crockford</b> , Lecturer in Soil and Water Management	An outline of the purpose, arrangements and procedures for the viva from an experienced examiner. A recent candidate's experience of the viva. Advantages and disadvantages of alternative thesis formats and styles are considered.
Research Postgraduate Development Programme 3 <sup>rd</sup> years	Introduction to Copyright	<b>Kathryn Greaves</b> , Library Services Manager	Purpose of the session is to increase understanding of copyright in an academic environment and in particular issues surrounding electronic theses.
Research Postgraduate Development Programme 3 <sup>rd</sup> years	Writing Grant Proposals	<b>Nicola Randall</b> , Chair of Research Degrees Awarding Board/ Senior Lecturer in Countryside Management, Crop and Environment Sciences Department	Split into 3 – what to do to prepare for a grant application, how to put together an application, & what to do if you get a rejection. The session includes a task where students are asked to assess a number of real grant applications & make suggestions for improvement/ consider whether or not they think they will have been accepted or not.  The workshop is probably most useful to later stage students (that may be thinking about applying for further funding) but often early PhD students attend. Some of the information can be used by them too e.g. if applying for travel grants to conferences etc.
Research Postgraduate Development Programme 3 <sup>rd</sup> years	Introduction to the Careers Service	<b>Claire Toogood</b> , Researcher Developer for Research Students	Introduction to the Careers Service – An overview of the services offered by the Careers Services at Harper Adams, and a brief look at potential career paths and opportunities following a PhD. At the end of this session you should be aware of the support available from the Careers Service

			and how to access this, understand potential career opportunities both in academia and elsewhere, and have an insight into the process of making applications for post-doctoral employment.
Research Postgraduate Development Programme For PhD students who have completed Researchers Who Teach	An introduction to e-learning, incorporating a couple of technology driven ideas	<b>Henry Keil</b> , Technology Enhanced Learning Co-ordinator <b>Carl Kennard</b> , E-Learning Developer/Technologist	This session will provide an introduction to using learning technology in teaching. Topics covered will include virtual learning environments, learning object creation and computer-aided assessment. This is a practical session and attendees will be able to experiment with designing online modules and building quizzes.
Careers Service event	iStart	<b>Polly Gibb</b> , Director of Women in Rural Enterprise	iStart is a digitally focused new business course. Available only through WiRE, iStart is for students and alumni of Harper Adams University who are thinking of starting a business. This course takes place at Harper Adams annually, usually in June. It is a one day workshop covering business ideas and planning, and the individual and entrepreneurship.
Online training (sign up required)	UEA Online Training Series for PGRs	<b>University of East Anglia and other partners</b>	This training series, which offers 'live-taught' research and professional skills training to PGR students of all disciplines on weekday evenings and via a virtual classroom, began in late 2015.  Indicative sessions include: <ul style="list-style-type: none"> <li>• What should a literature review do?</li> <li>• Writing effectively</li> <li>• Academic publishing</li> <li>• Writing and structuring an effective thesis</li> <li>• A comparison of qualitative methods</li> <li>• Qualitative interviewing</li> <li>• Analysing qualitative data</li> <li>• Preparing for your viva</li> <li>• On the job: securing a first academic post</li> <li>• Preparing impactful research</li> <li>• Finishing your PhD proposals and grant applications</li> <li>• Preparing and delivering seminars</li> <li>• Preparing and delivering lectures</li> <li>• Assessment, feedback and module design</li> <li>• A beginner's guide to quantitative research</li> <li>• Intro to scale development</li> </ul>

<p>Online training (sign up required – limited number of licences available)</p>	<p>Nature Masterclasses Online</p>	<p><b>Nature</b></p>	<ul style="list-style-type: none"> <li>• Intro to structural equation modelling</li> </ul> <p>Nature Masterclasses provides online and face-to-face training in scientific writing and publishing for researchers. The training is delivered by current Nature journal editors and aims to help researchers develop and discover what it takes to publish in high-quality journals, network with international peers and learn practical scientific writing techniques.</p>
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### **Services provided to Research Students by the Laboratory Group**

Members of the Laboratory Group will:

- ◆ Provide a laboratory induction. This is done as part of the formal MPhil and PhD student induction. It consists of a number of separate sessions:
  - ◆ A short introductory talk from the Laboratory Manager covering: the role and remit of HAUC laboratories, an in-house Health and Safety video, the Health and Safety folder (the 'Blue Folder') and a 'homework' question to complete in readiness for session three. At this point students will be directed towards the PML Guide for Researchers and their blue Health and Safety Folders.
  - ◆ A tour of laboratory facilities.
  - ◆ A third session covering the concept of COSHH and risk assessment. This takes an entire half day and students practice completion of risk and COSHH assessments. This session is usually taken by the Laboratory Manager and the Health and Safety Officer.
  - ◆ Essential lab skills sessions. This involves a series of short back-to-back sessions covering a wide range of basic laboratory skills which include, but are not exclusive to, sessions on use of pipettors, use of balances, safe handling of liquids, choice of PPE, effective use of fume cupboards. Also included is training on centrifuge use which is compulsory for all centrifuge users. These sessions are delivered in the Princess Margaret Laboratories by members of the laboratory team.
  - ◆ Where applicable, postgraduate students also attend an additional induction into the Microbiology Suite including, where applicable, training in containment level 2 biosecurity. Directors of Studies are asked to inform the Laboratory Manager if their student is likely to be conducting microbiological work in order that a suitable induction can be arranged. This induction is conducted by the lead microbiological technician against a standard checklist of objectives.
  - ◆ Where students expect to commence laboratory work before their formal two-week induction takes place then the Laboratory Manager will give them a brief talk covering all issues detailed in the Laboratory Guide for Researchers, issue the blue folder, and instruct the student on the need to obtain login details for the SHE Enterprise Health and Safety software for the completion of COSHH and Risk Assessments.
  
- ◆ Provide technical support for post-graduate student research. This may involve any or all of the following:

- ◆ Technician help will be made available at **mutually** convenient times to assist the student in developing methods to a point where they routinely produce useful results.
- ◆ Training will be given on the use of relevant equipment and instrumentation and provision of ongoing technical support (e.g. equipment maintenance and troubleshooting) will be supplied.
- ◆ Where applicable, training will be given in basic microbiological procedures (e.g. aseptic technique, pouring plates etc) if the student demonstrates a lack of experience in this area.
- ◆ Provide technical advice.
- ◆ Provide a purchasing service:
  - ◆ Laboratory Group members will discuss purchasing requirements with research students and, where applicable, their directors of studies. Suitable items will be sourced and the Group will liaise with suppliers to obtain quotations and negotiate an offer price. On completion of a requisition form (available from S1); orders will also be placed on the authority of a budget code holder for items required. On delivery, goods will be unpacked, checked and their receipt will be communicated to the person who requested purchase.

#### **Responsibilities of Research Students:**

Whilst not wishing to be burdensome, it is important that for the safety and convenience of all users of the laboratories students are expected to:

- ◆ Attend their laboratory induction sessions at the start of their project and before commencing their laboratory work.
- ◆ Where applicable, attend an additional, separate, microbiology suite induction and/or containment level 2 training where projects involve microbiology work. The aim of this is to draw attention to the operation of the micro preparation and laboratory areas and the safety and work standards required. Additional training will be given on an individual basis. The microbiology technicians must be consulted before commencing any microbiology work.
- ◆ Adhere to the Princess Margaret Laboratory's Regulations and associated Codes of Practice for individual laboratories. A copy of the Harper Adams University Laboratories Health and Safety Policy and the Harper Adams University Health and Safety Manual can be found on the L: drive under L:\PM Labs Public.
- ◆ General safety regulations include, but are not exclusive to, the following::
  - ◆ Wearing a laboratory coat (buttoned up)
  - ◆ Keeping their work areas tidy
  - ◆ Washing their hands before leaving a laboratory

- ◆ Tying back of long hair
- ◆ Wearing close-toed, low heeled shoes
- ◆ No eating, drinking, smoking or application of cosmetics
- ◆ Clearly label all samples and solutions. Labelling must indicate the nature of the contents (with appropriate hazard data if required), the name of the person responsible and the date. Sample labels should also include the date after which they no longer needed. Unlabelled samples may be thrown out.
- ◆ Not leave work in progress unattended for long periods of time. Laboratory staff should be kept informed as to progress and once work is completed all chemicals and equipment should be cleared away to their original locations.
- ◆ Decontaminate all dirty glassware and leave in the washroom for cleaning. It is not acceptable to leave flasks/jars in the washroom with materials or solutions still in them.
- ◆ Fully comply with the 'Guidance notes for users of animal by-products (ABP) in the Princess Margaret Laboratories (PML)'. These concern the transport into PML and subsequent use of all animal by-products (e.g. faecal material, unprocessed meat, and egg samples). Copies of the Guidance Notes and blank 'Animal By-Products Movement Document' forms are obtainable on request from the Laboratory Manager.
- ◆ Provide sufficient notice of their requirements. Whilst group members will always try to be accommodating, last minute requests should always be the exception rather than the rule. Please allow time for any materials and equipment to be ordered and delivered.
- ◆ Prepare risk and COSHH assessments for all new practical work undertaken. To comply with Laboratory Regulations a copy of each assessment must be filed in the Laboratory Manager's Office (S2) using the student's blue Health and Safety file. Where a procedure has already had a risk/COSHH assessment prepared (e.g. for work already routinely conducted) and the proposed work is not substantially different, then a new assessment is not necessary. Instead, a member of staff of the laboratory team will go through the relevant official risk and COSHH assessments with the researcher who will then sign a log book to indicate that they agree to abide by the control measures detailed in the assessments.
- ◆ Complete and submit an Out of Hours request form for work they wish to conduct outside of normal working hours. The only exception to this is S32 Applied Research Laboratory. Access is available to researchers from 8 am to 10 pm, 7 days per week, for low risk activities without the need for a completed Out of Hours request form. Permission is only granted for low risk activities and usually where the student has already demonstrated reasonable competency in their laboratory work. Lone worker alarm systems are available from Security at any time of day or night and from the Library help desk when the library

is open. All access to the Princess Margaret Laboratories is at the discretion of the Laboratory Manager.

- ◆ Submit details of any accident or near miss incident in which they are involved. Forms are available in the Technicians' Office (S1).
- ◆ Ask for help when in any doubt over laboratory related matters. Students should never be afraid to seek assistance. It is far better for students to ask for help then to potentially endanger themselves or others, damage equipment, ruin samples or produce bad data.

## APPENDIX 3b: Services provided to MPhil and PhD students by the Animal Production, Welfare and Veterinary Sciences Department

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Members of the Animals Department will:

- Provide an induction. This will include a tour of the animal facilities and health and safety instruction by the Head of animal research.
- Students will be issued with a current copy of the student safety handbook.
- The Head of animal research or one of the student's supervisors will introduce the student to the relevant members of staff in the Animal Department and provide information on procedures for ordering and booking out of equipment and consumables
- Provide advice on ethical and legal requirements for animal research.

Technicians will:

- Be available at mutually convenient times to assist the student in developing and applying research methods.
- Be ultimately responsible for animal health, welfare and for the day to day husbandry of animals on study.
- Liaise with the student and Head of animal research and/or a supervisor to agree out of hours and weekend working and sharing fairly this workload to allow both technician and student reasonable time off whilst conducting the study to highest possible standard.
- Provide training on the use of relevant equipment and provide on-going technical support (e.g. equipment maintenance and troubleshooting).
- Provide technical advice and support.
- Provide a purchasing service of equipment and consumables. Orders will be placed on the authority of a budget code holder for the items required. On delivery, goods will be unpacked, checked and their receipt communicated to the person who requested the purchase.
- Provide training on animal handling.
- Assist with preparation of research facilities for study and dismantling and cleaning when completed.

Research Students will:

- Attend an induction at the start of their project and before commencing any study work.
- Prepare a protocol prior to the commencement of any study.

- Ensure that they fully comply with relevant approval for animal research before commencing a study, including Local Ethical approval and approval under the Animals (Scientific Procedures) Act 1986.
- Adhere to the biosecurity policies and health and safety policies in place for the whole of the animal facilities and individual animal facilities specific requirements.
- Be responsible for procedures and data collection relevant to their study over and above general animal husbandry.
- Liaise with the head ruminant technician, head poultry technician or head pig technician and Head of animal research and/or a supervisor to agree out of hours and weekend working and sharing fairly this workload to allow both technician and student reasonable time off whilst conducting the study to highest possible standard.
- Assist technicians in preparing a research area for study and dismantling and cleaning when completed.
- Inform a technician of any health or welfare issues relating to animals on study.
- Fully comply with the guidance notes for users of animal by-products. These concern the transport and use of animal by-products (e.g. faecal material, unprocessed meat, milk and egg samples). Copies of the notes and blank 'animal by-products movement document' forms are available from the laboratory manager.
- Prepare risk and COSHH assessments for all practical work undertaken. Where a procedure has already had a risk/COSHH assessment prepared and the proposed work is not substantially different, then a new assessment is not necessary.
- Comply with lone worker policy. Lone worker alarm systems are available from security 24 hours a day.
- Ask for help when in any doubt over animal research related matters Students should never be afraid to seek assistance. It is far better to ask for help than to potentially endanger themselves, others or livestock: damage equipment, ruin samples or produce poor data.

## APPENDIX 3c: Services provided to MPhil and PhD students by the Crop and Environment Sciences Department

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Members of the Crop and Environment Sciences Department will:

- Provide an induction. This will include a tour of the CERC facilities and health and safety instruction by the Trials Manager.
- Students will be issued with a current copy of the student safety handbook.
- The Trials Manager of CERC or one of the student's supervisors will introduce the student to the relevant members of staff in the Crop and Environment Sciences Department and provide information on procedures for ordering and booking out of equipment and consumables.
- Provide advice on ethical and legal requirements for crop research.

Field Trials Officers and Technicians will:

- Be available at mutually convenient times to assist the student in developing and applying research methods.
- Be ultimately responsible for crop trials and plant husbandry (using guidance from the student).
- Liaise with the student and the Trials Manager and/or a supervisor to agree out of hours and weekend working where appropriate sharing fairly this workload to allow both technician and student reasonable time off whilst conducting the study to the highest possible standard.
- Provide training on the use of relevant equipment and provide on-going technical support (eg equipment maintenance and troubleshooting).
- Provide technical advice and support.
- Provide a purchasing service of equipment and consumables. Orders will be placed on the authority of a budget code holder for the items required (a budget code will need to be provided before the purchase is made). These must be approved by the Director of Studies and the receipt of goods will be communicated to the person who requested the purchase.
- Provide training on use of CERC equipment.
- Where appropriate, assist with preparation of research facilities for study and dismantling and cleaning when completed.
- Initiate a record for field trials and maintain records with student's assistance.

Research Students will:

- Attend an induction at the start of their project and before commencing any study work.
- Prepare a protocol prior to the commencement of any study.
- Ensure that they fully comply with relevant approval for crop research and Health and Safety legislation before commencing a study, including Local Ethical approval.
- Adhere to the biosecurity policies and health and safety policies in place for the whole of the CERC.
- Be responsible for procedures and data collection relevant to their study over and above general crop and plant husbandry.
- Liaise with the Trials Manager and/or a supervisor to agree out of hours and weekend working where appropriate sharing fairly this workload to allow both Field Trials Officer/Technician and student reasonable time off whilst conducting the study to the highest possible standard. This must be agreed at least 24 hours before the out of hours/weekend work commences. The Trials Manager has final say as to whether out of hours work can be completed based on the risks involved. A risk assessment must be provided for all out of hours applications.
- Inform a Field Trials Officer/Technician of any health and safety issues relating to crop trials.
- Inform the Trials Manager of any broken equipment.
- Prepare risk and COSHH assessments for all practical work undertaken. Where a procedure has already had a risk/COSHH assessment prepared and the proposed work is not substantially different, then a new assessment is not necessary.
- Comply with lone worker policy. Lone worker alarm systems are available from security 24 hours a day.
- Ask for help when in any doubt over crop research related matters. Students should never be afraid to seek assistance. It is far better to ask for help than to potentially endanger themselves, others or livestock, damage equipment, ruin samples or produce poor data.
- Students must maintain records of all crop trials work in their research diary as well as maintaining records in crop trial diaries of work undertaken.
- Ensure all samples are clearly labelled with a name and disposal date. Samples that are not correctly labelled may be disposed of with no notice.



## APPENDIX 3d: Services provided to MPhil and PhD students by the Engineering Department

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Members of the Engineering Department will:

- ◆ Provide a workshop induction. This will include:
  - ◆ Tour of the Engineering Department facilities and Health and Safety instruction by the Head of Department during their induction period. Students will be issued with a current copy of the Student Safety Handbook.
  - ◆ Students will be provided with a pair of overalls and safety boots, sample risk assessment forms, a copy of the Engineering Codes of Practice and an introduction to members of the Engineering Department as well information on procedures for ordering and booking out of equipment and consumables.
  
- ◆ Provide technical support for post-graduate student research. This may involve any or all of the following:
  - ◆ Technician help will be made available at mutually convenient times to assist the student in developing methods to a point where they routinely produce useful results.
  - ◆ Training will be given on the use of relevant equipment and instrumentation and provision of ongoing technical support (e.g. equipment maintenance and troubleshooting) will be supplied.
  - ◆ Provide technical advice.
  
- ◆ Provide a purchasing service.
  - ◆ The Engineering Department Workshop Manager will discuss purchasing requirements with research students and, where applicable, their Directors of Studies. Suitable items will be sourced and the Department will liaise with suppliers to obtain quotations and negotiate an offer price. On completion of a requisition form; orders will also be placed on the authority of a budget code holder for items required. On delivery, goods will be unpacked, checked and their receipt will be communicated to the person who requested purchase.

## Responsibilities of Research Students

Whilst not wishing to be burdensome, it is important that for the safety and convenience of all users of the workshops students are expected to:

- ◆ Attend a general Engineering Department induction at the start of their project and before commencing their laboratory work.
- ◆ Adhere to the Engineering Department's Codes of Practice. They include but are not exclusive to the following:
  - ◆ Wearing a pair of overalls and safety boots.
  - ◆ Keeping their work areas tidy.
  - ◆ Washing their hands before leaving a workshop.
  - ◆ Tying back of long hair.
  - ◆ No eating, drinking, smoking or application of cosmetics.
- ◆ Not leave work in progress unattended for long periods of time. Engineering Department staff should be kept informed as to progress and once work is completed all equipment should be cleared away to their original locations.
- ◆ Provide sufficient notice of their requirements. Whilst Department members will always try to be accommodating, last minute requests should always be the exception rather than the rule. Please allow time for any materials and equipment to be ordered and delivered.
- ◆ Prepare risk and COSHH assessments for all practical work undertaken. To comply with Workshop Regulations a copy of each assessment must be filed with the Engineering Department Workshop Manager's and the Head of Department. Where a procedure has already had a risk/COSHH assessment prepared (e.g. for work already routinely conducted) and the proposed work is not substantially different, then a new assessment is not necessary. Instead, the student will be given a copy of the current assessment and required to sign to say that they have read and understood it.
- ◆ Complete and submit an Out of Hours request form for work they wish to conduct outside of normal working hours. Permission is only granted for low risk activities and usually where the student has already demonstrated reasonable competency in their workshop

work. Lone worker alarm systems are available from Security at any time of day or night and should be worn. All access to the Engineering Department is at the discretion of the Head of Department.

- ◆ Submit details of any accident or near miss incident in which they are involved. Forms are available in the Technicians' Office.
  
- ◆ Ask for help when in any doubt over workshop related matters. Students should never be afraid to seek assistance. It is far better for students to ask for help than to potentially endanger themselves or others, damage equipment, ruin samples or produce bad data.

APPENDIX 3e: Services provided to MPhil and PhD students by the Food and Agri-Food Supply Chain Management Department

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Students should contact Clare Hutchinson for appropriate information ([chutchinson@harper-adams.ac.uk](mailto:chutchinson@harper-adams.ac.uk))

APPENDIX 3f: Services provided to MPhil and PhD students by the Land, Farm and Agribusiness Management Department

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Students with Directors of Studies in this Department should contact Nigel Hill ([nhill@harper-adams.ac.uk](mailto:nhill@harper-adams.ac.uk)) for the appropriate information.

### Professional Standards

#### **Integrity**

Researchers must be able to exercise freedom in their academic choices, and must also accept responsibility for the decisions they make. Thus, the primary responsibility for ensuring that they act according to these principles in all aspects of their research work, including peer review, lies with the individual. Employers of researchers, funders of research and other organisations engaged with supporting research and researchers also have important roles to play.

#### Researchers will:

- understand and comply with the expected standards of rigour and integrity relevant to their research
- maintain the highest standards of rigour and integrity in their work at all times

#### **Researchers will also:**

- ensure that all research is subject to active and appropriate consideration of ethical issues
- comply with ethical, legal and professional frameworks, obligations and standards as required by statutory and regulatory authorities, and by employers, funders and other relevant stakeholders

#### **Researchers will also:**

- act in good faith with regard to allegations of research misconduct, whether in making allegations or in being required to participate in an investigation
- handle potential instances of research misconduct in an appropriate manner; this includes reporting misconduct to employers, funders and professional bodies, statutory and regulatory bodies as circumstances require.

At the heart of all research endeavour, regardless of discipline or institution, is the need for researchers to be honest in respect of their own actions in scientific research and in their responses to the actions of other researchers. This applies to the whole range of research work, including experimental design, generating and analysing data, publishing results, and acknowledging the direct and indirect contributions of colleagues, collaborators and others. All individuals must refrain from plagiarism, piracy or the fabrication of results.

## **Openness**

While recognising the need for researchers to protect their own research interests in the process of planning their research and obtaining the results, Harper Adams encourages the researchers it funds to be as open as possible in discussing their work with other researchers and the public. Once results have been published, where appropriate the University expects researchers to make available relevant data and materials to others, on request.

### **A critical approach to research results**

Researchers should always be prepared to question the outcome of their research. While acknowledging the pressures – of time and resources – under which researchers often have to work, Harper Adams expects research results to be checked before being made public.

### **Documenting results and storing primary data**

Throughout their work, Harper Adams requires researchers to keep clear and accurate records of the research procedures followed and of the results obtained, including interim results using a Research Notebook or equivalent. This is necessary not only as a means of demonstrating proper research practice, but also in case questions are subsequently asked about either the conduct of the researcher or the results obtained. For similar reasons, data generated in the course of research must be kept securely in paper or electronic form, as appropriate. Harper Adams expects data to be securely held for a period that complies with the requirements and best practice of the funding body, research council or legislative requirement as appropriate.

### **Publishing results**

It is a condition of Harper Adams support for research that the results are published in an appropriate form. Papers published in refereed journals are strongly encouraged. This has long been widely accepted as the best system for research results to be reviewed – through the refereeing process – and made available to the research community for verification or replication.

All peer-reviewed journal research papers published by Harper Adams University staff and/or students are expected to be made open access. An electronic copy should be deposited in the Harper Adams University repository. This should occur as soon as the paper is accepted, and no later than three months after the date of acceptance. The repository is maintained by the Library to whom the electronic copy of the paper should be

sent. In recent years, questions have been raised, in particular about the growth in number of authors of individual papers, and the implications of increasing pressures to publish. The issue of authorship is important in the context of good scientific practice, and Harper Adams expects it to be taken seriously. In line with a suggested model published by Nature, Harper Adams expects anyone listed as an author on a paper to accept personal responsibility for ensuring that they are familiar with the contents of the paper, and that they can identify their contributions to it. The practice of honorary authorship is unacceptable. Harper Adams expects suitable acknowledgement of financial support in all publications.

#### Acknowledging the role of collaborators and other participants

In all respects of research, the contributions of formal collaborators and all others who directly assist or indirectly support the research must be properly acknowledged. This applies to any circumstances in which statements about the research are made, including provision of information about the nature and process of the research, and in publishing the outcome. Failure to acknowledge the contributions of others is regarded as unprofessional conduct. Similarly, collaborators and other contributors carry their share of the responsibility for the research and its outcome.

#### The needs of new researchers

Researchers who are new to the scientific community may face particular difficulties. Responsibility for ensuring that students and other new researchers understand good research practice lies with all members of the community, but particularly with senior researchers. Research institutions should have in place systems which allow students and new researchers to adopt best practice as quickly as possible, for example, formal training or mentoring schemes.

*(Adapted from BBSRC Statement on Safeguarding Good Scientific Practice and Universities UK The Concordat to support research integrity),*



## Guidelines for Authorship of Published Papers

### Co-authorship Scoring System

#### INTELLECTUAL INPUT

(Planning/designing/interpreting)

No contribution	0
One detailed discussion	5
Several detailed discussions	10
Correspondence or longer meetings	15
Substantial liaisons	20
Closest possible involvement	25

#### PRACTICAL INPUT: DATA-CAPTURE

(setting-up/observing/recording/abstracting)

No contribution	0
Small contribution	5
Moderate indirect contribution	10
Moderate direct contribution	15
Major indirect contribution	20
Major direct contribution	25

#### PRACTICAL INPUT: BEYOND DATA-CAPTURE

(Data processing/organising)

No contribution	0
Minor or brief assistance	5
Substantial or prolonged assistance	10

#### SPECIALIST INPUT FROM RELATED FIELDS

No contribution	0
Brief or routine advice	5
Specially-tailored assistance	10
Whole basis approach	15

#### LITERARY INPUT

(contribution to first complete draft of manuscript)

No contribution	0
Edited others' material	5
Contributed small sections	10
Contributed moderate proportion	15
Contributed majority	20
Contributed virtually all	25

*Rod Hunt letter to Nature Vol 352, 18 July 1991*

### Notes

At least:

- 25 points needed to be a joint author. Otherwise person is acknowledged
- Person scoring highest number is first author

## Instructions on the use of Research Notebooks

All staff must read the **Guidelines for the Research Notebook System** available on the H:\drive (Quality Assurance Research)

It is the policy of Harper Adams University that all research activities must be accurately and thoroughly recorded in a way that is robust, comprehensive and auditable. Except where GLP, GEP or other accreditation schemes are in place, the master record for a project must be kept in a registered notebook with a permanent binding. These notebooks must be cross-referenced with other laboratory notebooks, computer files and other supplementary records of data, files, images etc as appropriate, such that any knowledgeable colleague could easily follow the data trail. This notebook may be subject to internal audit and to future inspection by regulatory or patent authorities.

1. Write clearly and legibly in a medium that is permanent, waterproof and capable of being photocopied legibly (eg with black or dark blue pens). Never write in pencil.
2. On the signature page write your name in block capitals and provide a specimen signature. Any agreed counter-signatory should do likewise. Counter-signing procedures and agreed changes should be noted, signed and dated on the page set aside for counter-signing procedures (see below 12).
3. Use of the Table of Contents pages is optional.
4. Each page should be clearly dated at the top and it will be assumed that all entries on a particular page were made on that date unless a subsequent date is record.
5. Entries must be made in chronological order and gaps must not be left to be filled in retrospectively.
6. You should sign and date each completed page of the notebook. Any comments or additions added subsequently should be initialled and dated.
7. Whole pages or large sections (more than four lines) of a page left blank for any reason should be ruled through with a cross to indicate that they are unused.
8. Errors should **NOT** be erased or covered with correction fluid, but should be ruled through with a single line so that the original test is still legible. Corrections should be initialled and dated, and if made after counter-signing the correction should be counter-signed and dated. **Pages must NEVER be removed from notebooks.**

9. Use cross referencing to correlate different entries within a notebook or in different notebooks and to correlate notebook entries with supplementary records (see below 11).
10. Any photographs, graphs, drawings or other loose sheets attached to a page before notebook entries. These should be permanently fixed with non-reflective adhesive tape or glue. Do not use ordinary sellotape as this discolours and damages the book, and can cause problems if copies are needed. The item should lie flat on the page and not cover up a previous notebook entry.
11. Other items and computer data are supplementary records and their location and file names should be entered in the notebook. They should be kept in supplementary files and cross referenced with the notebook number and date. Hand-written notes may be added to a supplementary record and should be initialled and dated in the usual manner. Supplementary data files are part of the notebook and must be stored along with the notebook. Supplementary computer files should also be cross-referenced with the notebook number and archived in non-editable (read only) format at appropriate intervals.
12. If counter-signing is required, the notebooks should be signed at agreed intervals by a person authorised to do so by the Head of Department. The counter-signatory should sign and date the last page on which an entry is made in the notebook, confirming that all pages completed between the last counter-signature and the current date have been correctly written accordingly to the instructions for notebook use.
13. Data held in Research Notebooks and supplementary records are the property of Harper Adams University or are held in trust by Harper Adams University on behalf of contracting negotiations. They should be safeguarded on Harper Adams University premises in a manner that prevents damage, theft or unauthorised access. Notebooks should not be permanently removed from Harper Adams University without prior authorisation.

**Research Notebooks will be subject to Internal Audit**

## APPENDIX 5: Useful Contacts

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