University of Central Lancashire

ENJOYABLE GREAT Time-Saving HELPFUL People-Focussed
TIMELY FRIENDLY LABOUR-SAVING
FUN SOCIABLE Useful FREE Entertaining GOOD ADVICE
Regular PRACTICAL THOUGHT-PROVOKING Insightfulness Clarifying
NETWORKING Excellent Inspiring
Good-Quality

POSTGRADUATE RESEARCH STUDENT TRAINING PROGRAMME 2016/2017

University of Central Lancashire
Research Development and Support

World-leading research with real-world impact

INTRODUCTION

Welcome to the 2016-17 Postgraduate Research Student Training Programme from the University Research Development and Support Team. Our aim is to provide all postgraduate research students with high quality training to enable you to get the most out of your doctoral journey.

Postgraduate Research Student Training at the University of Central Lancashire covers a wide range of topics from setting you off on the right foot, to looking at your employability and future career after receiving your award. This guide aims to show what training and development is available to you, how to access it, and how our training provision aligns with the Researcher Development Framework. This guide also covers a number of other aspects of being a Postgraduate Research Student here at the university, such as guidance notes regarding successful progression and hints and tips to ensure that your doctoral journey is a successful one.

The University of Central Lancashire is committed to producing world-leading research and top-class researchers and our training facilities and provision are just one way in which we, at the Research Office, aim to support that.

For further information, advice or assistance please contact the Research Development and Support Training Team on **training4research@uclan.ac.uk**, **01772 895090**

Emma Sandon-Hesketh
Head, Research Development and Support

RESEARCHER DEVELOPMENT FRAMEWORK

Here at the University of Central Lancashire we are committed to producing world-class researchers that are real-world ready, and as such we have mapped our training and development course provision to the Vitae Researcher Development Framework.

The Vitae Researcher Development Framework was developed by researchers for researchers with the aim to *"enhance our capacity to build the UK workforce, develop world-class researchers and build the UK higher education research base"*. As such it focuses on the specific knowledge, behaviours and attributes that successful researchers should exhibit and thus encourages them to *"aspire to excellence through achieving higher levels of development"*.

The Researcher Development Framework is split into 4 main domains, each of which holds 3 subdomains and their associated skills, which describe different aspects of being a researcher. Each of our courses has been mapped to the RDF to show which of the domains and subdomain skills it can help to develop. In addition to your own personal reflection and discussion with your supervisory team, you should aim to ensure that you have skills covering each of the RDF domains and skillsets. Initially we recommend mapping the skills that you already have to the RDF and then highlight any areas in which you require further development.

www.vitae.ac.uk/CMS/files/upload/Vitae-Researcher-Development-Framework.pdf

LIST OF SKILLS FOR EACH RDF DOMAIN AND SUBDOMAIN

Domain A: Knowledge and intellectual abilities

A1 Knowledge base

1. Subject knowledge
2. Research methods – theoretical knowledge
3. Research methods – practical application
4. Information seeking
5. Information literacy and management
6. Languages
7. Academic literacy and numeracy

A2 Cognitive abilities

1. Analysing
2. Synthesising
3. Critical thinking
4. Evaluating
5. Problem solving

A3 Creativity

1. Inquiring mind
2. Intellectual insight
3. Innovation
4. Argument construction
5. Intellectual risk

Domain C: Research governance and organisation

C1 Professional conduct

1. Health and safety
2. Ethics, principles and sustainability
3. Legal requirements
4. IPR and copyright
5. Respect and confidentiality
6. Attribution and co-authorship
7. Appropriate practice

C2 Research management

1. Research strategy
2. Project planning and delivery
3. Risk management

C3 Finance, funding and resources

1. Income and funding generation
2. Financial management
3. Infrastructure and resources

Domain B: Personal effectiveness

B1 Personal qualities

1. Enthusiasm
2. Perseverance
3. Integrity
4. Self-confidence
5. Self-reflection
6. Responsibility

B2 Self-management

1. Preparation and prioritisation
2. Commitment to research
3. Time management
4. Responsiveness to change
5. Work-life balance

B3 Professional and career development

1. Career management
2. Continuing professional development
3. Responsiveness to opportunities
4. Networking
5. Reputation and esteem

Domain D: Engagement, influence and impact

D1 Working with others

1. Collegiality
2. Team working
3. People management
4. Supervision
5. Mentoring
6. Influence and leadership
7. Collaboration
8. Equality and diversity

D2 Communication and dissemination

1. Communication methods
2. Communication media
3. Publication

D3 Engagement and impact

1. Teaching
2. Public engagement
3. Enterprise
4. Policy
5. Society and culture
6. Global citizenship

IDENTIFYING YOUR DEVELOPMENT NEEDS AND CHOOSING TRAINING

Each of our training courses has been mapped to show which of the specific Researcher Development Framework skills it can help to develop.

At the back of this guide is a Personal Development Log in which you can record the training that you have attended and the skills from within each of the 4 main domains that you have developed. By the end of your doctoral journey you should be able to demonstrate skills across each of the RDF domains, subdomains and skill descriptors.

We believe in the importance of both personal reflection and supervision in identifying your development needs, so we strongly recommend that you keep an on-going dialogue with your supervisory team concerning your training and development requirements.

Within the timetable of courses, there is a column marked "Particularly useful for" and this will help to indicate at what stage of your research journey the courses will have most relevance.

Each of our training courses has also been marked with the stage of your research within which it is the most appropriate:

1) **Starting your journey** – these courses are designed to be accessed within the first years of your research, they will give you the core skills required to progress through your award

2) **Along the way** – these courses are aimed at researchers in the mid stages of their research, or when moving from one phase to another

3) **Reaching the finish line** – these courses will provide essential skills to those who are nearing the end of their research and the facing the specific challenges that this reveals

4) **Whenever, wherever** – these courses are not specific to any particular phase of your research and can be accessed whenever you feel that you need further development in a certain area

5) **Pit Stops** – for ultimate flexibility we offer a number of online learning opportunities that cover a range of topics and can be accessed as and when you require them

For example, after each course description a table will detail who the training is designed for and which of the above stages it is the most appropriate for. It will also show you which of the RDF skills it will help to develop.

Training for	All students **Stage 1**
RDF Domains (Primary)	A2, A3, B1.3, B1.6, B2.1, B3.5, C1, C2
RDF Domains (Secondary)	A1.1, A1.2, B1.1, B1.2, D2.1

For further information, advice or assistance please contact the Research Development and Support Training Team on **training4research@uclan.ac.uk** or call **01772 895090**.

BOOKING

All of our training courses must be pre-booked as there are limited numbers of places on each course. Also for many of our courses, the trainer will tailor the course appropriately to the delegates or send pre-course information.

How to book onto a course

Course information can be accessed from the Research Student Training Calendar, which is available on the UCLan website at **www.uclan.ac.uk/research/study/student_training.php**

3 simple steps to booking onto your course:

1. Simply look through the Research Student Training Calendar (or the pdf brochure also at this link) to find course titles and dates.

2. Click onto your preferred course to discover more information about the course and a booking link.

3. Follow the booking link to the specified Eventbrite page and register your name and UCLan e-mail address, and the school you are based in. You will then receive an e-mail confirming that your place on the course has been booked, and reminders in advance of the event.

Waiting Lists
Course places are allocated on a first come first served basis. Once a course has reached its maximum delegate capacity you will still be able to register your details for a place on the waiting list. If a place does become available, the first person on the waiting list will be offered a place, if they do not accept the place within 1 day, then it will be offered to the next person on the waiting list and so on.

Cancelling a Course booking
If a participant needs to cancel their course booking, then it is imperative that they do so as soon as possible, so that the place may be offered to someone else. To cancel your booking, either log onto your Eventbrite account and cancel the course directly or e-mail your cancellation request to **training4research@uclan.ac.uk**

Repeated non attendance
Please note that we closely monitor attendance and record any failures to attend without 48hrs notice (no shows). Repeated failures to attend may result in your Supervisory Team and Director of Studies being notified, and an official warning letter being held in your University file, refusal of entry to future training courses, and the issuing of fines.

Course Duration
You should only book a place on a course if you are able to attend for the full duration. It is not normally possible to only attend part of a course, and a certificate of attendance will not be issued if you leave a session early. Where courses bear academic credit (e.g. the University Certificate in Research Careers) you risk losing that credit if you do not attend full sessions/complete any assessment required.

Evaluation
The Research Development and Support team are always looking to ensure that our course provision is the very best that it can be. As such after each course you will be invited to complete an evaluation via an email link. We ask that you take the short amount of time it takes to complete this and let us know your feedback. Any additional feedback can also be emailed to **training4research@uclan.ac.uk**

CODE OF CONDUCT

Our courses are delivered by school staff, professional services, and external facilitators. Please be courteous and arrive promptly for all courses (at least five minutes before the start time).

Our tutors have the right to refuse you entry onto the course if you are late (more than 10 minutes late). Please also note that use of mobile phones is prohibited during the training, and all phones should be on silent. It is also courteous to return on time after any breaks or lunch, in order that other students are not inconvenienced by you causing a delay.

It is important that once students have booked on an activity, they make a commitment to come and inform the Research Development and Support Team with reasonable notice, if they have to cancel for unforeseen reasons. We see this as being an expectation of the postgraduate research student as a professional who is preparing for the world of work. In addition, the postgraduate training courses quickly become fully booked. Advising us if you are unable to attend allows us to offer places to those on a waiting list.

The Code of Conduct sets out the standards of service you can expect from the Research Development and Support Team when booking onto an event. Reservations for sessions are necessary for a variety of reasons, such as limited venue size or a specific number of participants being required to run the session. The Code of Conduct also explains what the Research Development and Support Team expects from participants in booking and attending an event.

The Research Development and Support Training Team will:
- Publicise training events through the university website student training site **http://www.uclan.ac.uk/research/study/student_training.php**, in print through our postgraduate Training Brochure for 2016-2017. Where changes to events happen after the publication of printed material, these changes will be notified through the website. The website should be regarded as the most up to date source of events information and regularly checked.

- Provide booking facilities for our courses through our internal training calendar, and online booking system using Eventbrite.

- Notify participants by email in advance of the event with any changes to the event itself or to the date, time or venue for the event.

- Honour bookings made by participants. However, late admission (defined as more than 10 minutes after the advertised start time of the session) is solely at the discretion of the individual workshop facilitator.

- Provide written information about the conditions of booking for any events, which differ from the above.

Participants will:
- Check the online training calendar regularly for sessions they are interested in attending and reserve a place.

- Cancel their reservation if they are unable to attend a session for which they have booked at least 2 days before the event. This then enables us to offer that place to other participants. You can contact us on **01772 895090** or email **training4research@uclan.ac.uk**

- Ensure they arrive on time for the session (arrive at least five minutes before the start of the course) as a sign of respect for your fellow course attendees and the facilitator. However, if you arrive more than 10 minutes later than the start time, it is at the discretion of the individual facilitator whether you will be allowed to attend.

- Notify the Research Development and Support Training Team on **01772 895090** (between 8.45 a.m. – 4.45 p.m.) if they will be arriving late, so that advice can be given about whether they will still be able to join the session and a place can be held for them if appropriate.

- Attend the whole of the event for which they have booked a place.

- Provide feedback when requested.

TRAINING DATES 2016–2017

Please note that all courses/dates/times are subject to change. Please check the Research Student Training Calendar for current information and for the course venue - **http://www.uclan.ac.uk/research/study/student_training.php**

Course Title	Particularly Useful for	Date	Time
Abstracting & Indexing Databases (Web of Science/SCOPUS)	Year 1 FT/PT	24 October 2016	10:00-12:00
		15 December 2016	13:00-15:00
		14 March 2017	10:00-12:00
		6 July 2017	14:00-16:00
Be a Better Writer	All years	8 November 2016	09:30-16:30
		18 January 2017	09:30-16:30
		7 March 2017	09:30-16:30
		9 May 2017	09:30-16:30
		4 July 2017	09:30-16:30
Business Databases	All years	20 January 2017	13:00-15:00
		26 June 2017	11:00-13:00
Citation Analysis	Year 2 FT/PT	2 December 2016	10:00-11:30
		11 May 2017	14:00-15:30

Course Title	Particularly Useful for	Date	Time
Confidence to Present at Conferences	All years	4 November 2016	10:00-12:00
		20 January 2017	10:00-12:00
		5 May 2017	10:00-12:00
CVs and Covering Letters Inside and Outside Academia	Year 3 FT Year 6 PT	20 October 2016	14:00-16:00
		10 November 2016	10:00-12:00
		7 February 2017	10:00-12:00
		10 March 2017	10:00-12:00
		4 April 2017	10:00-12:00
		4 May 2017	10:00-12:00
		5 July 2017	10:00-12:00
EndNote Training	Year 1 FT Year 1 and 2 PT All years	12 December 2016	10:00-11:30
		8 March 2017	14:00-15:30
Graduate Research Skills Course	Compulsory FT Optional PT	24 - 28 October 2016	09:30-16:30
		7 - 11 November 2016	09:30-16:30
		6 - 10 February 2017	09:30-16:30
		15 - 19 May 2017	09:30-16:30
Health Databases	All years	16 November 2016	10:00-12:00
		4 May 2017	10:00-12:00
Identifying your Future Career	Year 3 FT/PT	21 October 2016	10:00-12:00
		13 January 2017	10:00-12:00
		28 April 2017	10:00-12:00
Introduction to Research Ethics	Year 1 FT/PT	30 September 2016	14:00-16:00
		25 November 2016	14:00-16:00
		10 February 2017	14:00-16:00
		28 March 2017	10:00-12:00
		25 April 2017	10:00-12:00
		7 July 2017	14:00-16:00
Literature Searching	Year 1 FT/PT	8 December 2016	14:00-15:30
		5 June 2017	10:00-11:30
Literature Searching - Arts, Humanities and Social Sciences	Year 1 FT/PT	29 November 2016	10:00-12:00
		16 May 2017	10:00-12:00
Literature Searching - Psychology, Forensics and Applied Science	Year 1 FT/PT	25 November 2016	14:00-16:00
Literature Searching - Physics, Computing Electronics and Engineering	Year 1 FT/PT	18 May 2017	10:00-12:00
Managing Annual Progression Monitoring	Year 1 FT/PT	27 March 2017	10:00-12:00
		25 April 2017	14:00-16:00
Managing Research Programme Approval	Year 1 FT/PT	7 November 2016	10:00-12:00
		7 February 2017	14:00-16:00
		10 May 2017	13:00-15:00

Course Title	Particularly Useful for	Date	Time
Managing Transfer from MPhil to PhD	Year 1 FT Year 2 PT	5 December 2016	10:00-12:00
		14 March 2017	10:00-12:00
		24 May 2017	14:00-16:00
		13 July 2017	14:00-16:00
NVivo for Researchers Workshop 1 Why use NVivo	Year 1 FT/PT	14 October 2016	09:30-13:00
		20 January 2017	09:30-13:00
NVivo for Researchers Workshop 2 Getting started with NVivo	Year 1 FT/PT	21 October 2016	09:30-13:00
		2 December 2016	09:30-13:00
		27 January 2017	09:30-13:00
		10 March 2017	09:30-13:00
NVivo for Researchers Workshop 3 Getting started with NVivo	Year 1 FT/PT	11 November 2016	09:30-13:00
		9 December 2016	09:30-13:00
		10 February 2017	09:30-13:00
		24 March 2017	09:30-13:00
NVivo for Researchers Workshop 4 Advanced NVivo	Year 1 FT/PT	18 November 2016	09:30-13:00
		16 December 2016	09:30-13:00
		24 February 2017	09:30-13:00
		7 April 2017	09:30-13:00
Obtaining Ethical Approval	Year 1 FT/PT	10 November 2016	14:00-16:00
		7 December 2016	14:00-16:00
		24 January 2017	14:00-16:00
		8 March 2017	14:00-16:00
		18 May 2017	14:00-16:00
		17 July 2017	14:00-16:00
Postgraduate Research Student Induction	Compulsory for All students FT/PT	3 October 2016	09:15-16:00
		11 October 2016	09:15-16:00
		19 October 2016	09:15-16:00
		16 January 2017	09:15-16:00
		31 January 2017	09:15-16:00
		26 April 2017	09:15-16:00
		13 July 2017	09:15-16:00
REF Works	Year 1 FT/PT Year 2 FT/PT	11 November 2016	13:00-15:00
		24 January 2017	10:00-12:00
		13 April 2017	10:00-12:00
		17 July 2017	14:00-16:00
SPSS 1	All years	6 October 2016	14:00-17:00
		10 November 2016	14:00-17:00
		2 February 2017	14:00-17:00
		2 March 2017	14:00-17:00

Course Title	Particularly Useful for	Date	Time
SPSS 2	All years	13 October 2016	14:00-17:00
		17 November 2016	14:00-17:00
		9 February 2017	14:00-17:00
		6 April 2017	14:00-17:00
Thesis Construction	Year 3 FT Year 5/6 PT	11 October 2016	13:30-16:30
		17 January 2017	13:30-16:30
		7 February 2017	13:30-16:30
		4 April 2017	13:30-16:30
		6 June 2017	13:30-16:30
University Certificate in Postgraduate Career Skills for Researchers Workshop 1 - Personal Brand Your Digital Presence	Year 3 FT Year 5/6 PT	14 October 2016	10:00-12:00
		27 January 2017	10:00-12:00
		12 May 2017	10:00-12:00
University Certificate in Postgraduate Career Skills for Researchers Workshop 2 - Career Awareness	Year 3 FT Year 5/6 PT	28 October 2016	10:00-12:00
		3 February 2017	10:00-12:00
		19 May 2017	10:00-12:00
University Certificate in Postgraduate Career Skills for Researchers Workshop 3 - Getting Yourself Published	Year 3 FT Year 5/6 PT	11 November 2016	10:00-12:00
		10 February 2017	10:00-12:00
		26 May 2017	10:00-12:00
University Certificate in Postgraduate Career Skills for Researchers Workshop 4 - Launching an Academic Career	Year 3 FT Year 5/6 PT	18 November 2016	10:00-12:00
		17 February 2017	10:00-12:00
		2 June 2017	10:00-12:00
University Certificate in Postgraduate Career Skills for Researchers Workshop 5 - Marketing yourself to Employers	Year 3 FT Year 5/6 PT	25 November 2016	10:00-12:00
		24 February 2017	10:00-12:00
		9 June 2017	10:00-12:00
University Certificate in Postgraduate Career Skills for Researchers Workshop 6 - Assessment Centres and Online Applications	Year 3 FT Year 5/6 PT	9 December 2016	10:00-12:00
		3 March 2017	10:00-12:00
		16 June 2017	10:00-12:00
Writing for Publication	All years	9 November 2016	09:30-16:30
		19 January 2017	09:30-16:30
		8 March 2017	09:30-16:30
		10 May 2017	09:30-16:30
		5 July 2017	09:30-16:30
Writing your Literature Review	Year 1 FT/PT	11 October 2016	09:30-16:30
		17 January 2017	09:30-16:30
		7 February 2017	09:30-16:30
		4 April 2017	09:30-16:30
		6 June 2017	09:30-16:30

HELPING YOU TO PUT THE PIECES TOGETHER

Postgraduate Research Student Induction
Compulsory for all students

The Research Student Induction course is an introduction to life as a Postgraduate Research Student at the University of Central Lancashire. It is designed to give you a general insight into and key information about different stages of your research.

Key topics include:

• Understanding research - the milestones along your journey
• The research website
• The importance of being ethical
• Making the most of Learning and Information Services from the library
• Introduction to Training
• Health and Safety Awareness

Sessions are run and should be attended when you start your research degree programme. You will be advised of specific dates as part of your offer letter and must book your place via the booking link provided, or contact **training4research@uclan.ac.uk** for further information. Failure to attend will jeopardise your progression.

"A well-structured programme and very informative. Thank you."

Training for	All students **Stage 1**
RDF Domains (Primary)	A1.4, B1.4, B1.5, B1.6, B2.1, C1.2
RDF Domains (Secondary)	A1.5, C1.1, C1.7

Graduate Research Skills Course
Compulsory for Full Time
Optional for Part Time

The Graduate Research Skills Course is a training programme that will provide you with many of the skills that you will need to become a successful research student in your chosen subject.

Course outline
The course consists of a series of sessions which you must complete within the first year of your full-time study to proceed on your research programme of study.

Course structure
At the end of this course you will be able to demonstrate that you have achieved a number of key learning outcomes to a level appropriate to the award. In particular you will have attended sessions relating to:

• Teambuilding
• Scientific and Technical Writing (2 days – for science based students)
• Academic Writing (2 days – for non-science based students)
• The Scientific Method
• Teaching tips for delivering in the classroom
• Creative and Critical Thinking

Courses are run to coincide with each new research student intake and should be attended within the first few months of starting your research programme award.

Contact **training4research@uclan.ac.uk** for course dates or further information.

"The Graduate Research Skills Course, which I undertook at the beginning of the year, was really useful in helping to settle in to the degree and begin interaction between other postgraduates."

Training for	All students **Stage 1**
RDF Domains (Primary)	A1, A2, A3, B1, B2, B3.2, B3.3, B3.4, B3.5, C1, C2, D1.1, D1.2, D1.4, D1.7, D2
RDF Domains (Secondary)	

Exemption
The Graduate Research Skills Course is mandatory for all full-time students, other than those who have been granted exemption through previous skills training that you have undertaken in the last 2 years on other postgraduate courses or are able to accredit previous prior learning or agree alternative accredited training with their Director of Studies.

Exemption forms are available from the Research Student Registry by emailing **help4researchstudent@uclan.ac.uk** and should be approved by your Director of Study who should email to **training4research@uclan.ac.uk**

GETTING THROUGH GOVERNANCE

Introduction to Research Ethics

In this session we will examine and discuss:

- The reasons why research is subject to ethical review
- The fundamental ethical principles governing research at the University of Central Lancashire, and internationally
- Issues and challenges in the application of the these principles
- Specific provisions governing work with vulnerable groups, handling and storage of data etc

In the second half of the session there will be an opportunity to put what you have learned into practice, by reviewing some real-life examples of ethically problematic research.

Training for	All students **Stage 1**
RDF Domains (Primary)	A2, A3, B1.3, B1.6, B2.1, B3.5, C1, C2
RDF Domains (Secondary)	A1.1, A1.2, B1.1, B1.2, D2.1

Obtaining Ethical Approval

All research student registration proposals, irrespective of the nature or activity involved, will need to be reviewed by their relevant ethics committee.

This practical session aims to explain the ethics system and how to complete your ethics application.

Session themes:

- The E-Ethics System
- Ethics checklist
- Guidance on completing and submitting your application
- The E-Ethics approval process
- Types of application (including NRES - IRAS)
- Health and Safety and Data Protection considerations

By the end of this session you will have a better understanding of the E-Ethics system and approval process and the confidence to know what to submit, and when, for you to gain ethical approval/clearance for your research project.

"The facilitator's ability to answer specific questions relevant to my own research was very useful."

Training for	All students **Stage 1**
RDF Domains (Primary)	A1.1, A1.4, A2.2, A2.4, A3.4, B1.2, B1.3, B1.6, B2.2, B3.5, C1.2, C1.3, C1.4, C1.5, C1.6, C1.7, C2.2, D1.2, D1.7, D2.1
RDF Domains (Secondary)	

Managing Research Programme Approval

This workshop aims to provide you with information and guidance regarding your Research Programme Approval (RPA) and will cover:

- What is Research Programme Approval?
- What are the timescales for completion of RPA?
- The RPA procedure

"Useful to learn more about what is involved in RPA and the common pitfalls."

Training for	All students **Stage 1**
RDF Domains (Primary)	A1.1, A1.2, A1.3, A1.6, A1.7, A2, A3, B1.2, B1.3, B1.4, B1.5, B1.6, B2, C1, C2, D1.2, D1.7
RDF Domains (Secondary)	C3.1, D1.4, D2

Managing Annual Progression Monitoring

This session aims to provide information and guidance about Annual Progression Monitoring. It will cover:

- Why we need Annual Progression Monitoring
- What happens and when
- Documentation requirements
- Who it involves
- Outcomes of Annual Progression Monitoring

| Training for	All students **Stage 1**
RDF Domains (Primary)	A2.4, B1.2, B1.3, B1.5, B1.6, B2.1, B2.3, B3, C2, D1.2, D1.3, D2.1
RDF Domains (Secondary)	A1, A2.2, C1.2

Managing Transfer from MPhil to PhD

This session will assist you in understanding the Transfer process and how to prepare for it effectively.

"Useful to go over all documentation combined with questions/queries about process."

Training for	All students **Stage 1**
RDF Domains (Primary)	A1, A2, A3, B1, B2, B3.2, C1.4, C1.5, C1.6, C1.7, C2, D1.1, D1.2, D2.1
RDF Domains (Secondary)	

COMPLETING YOUR RESEARCH
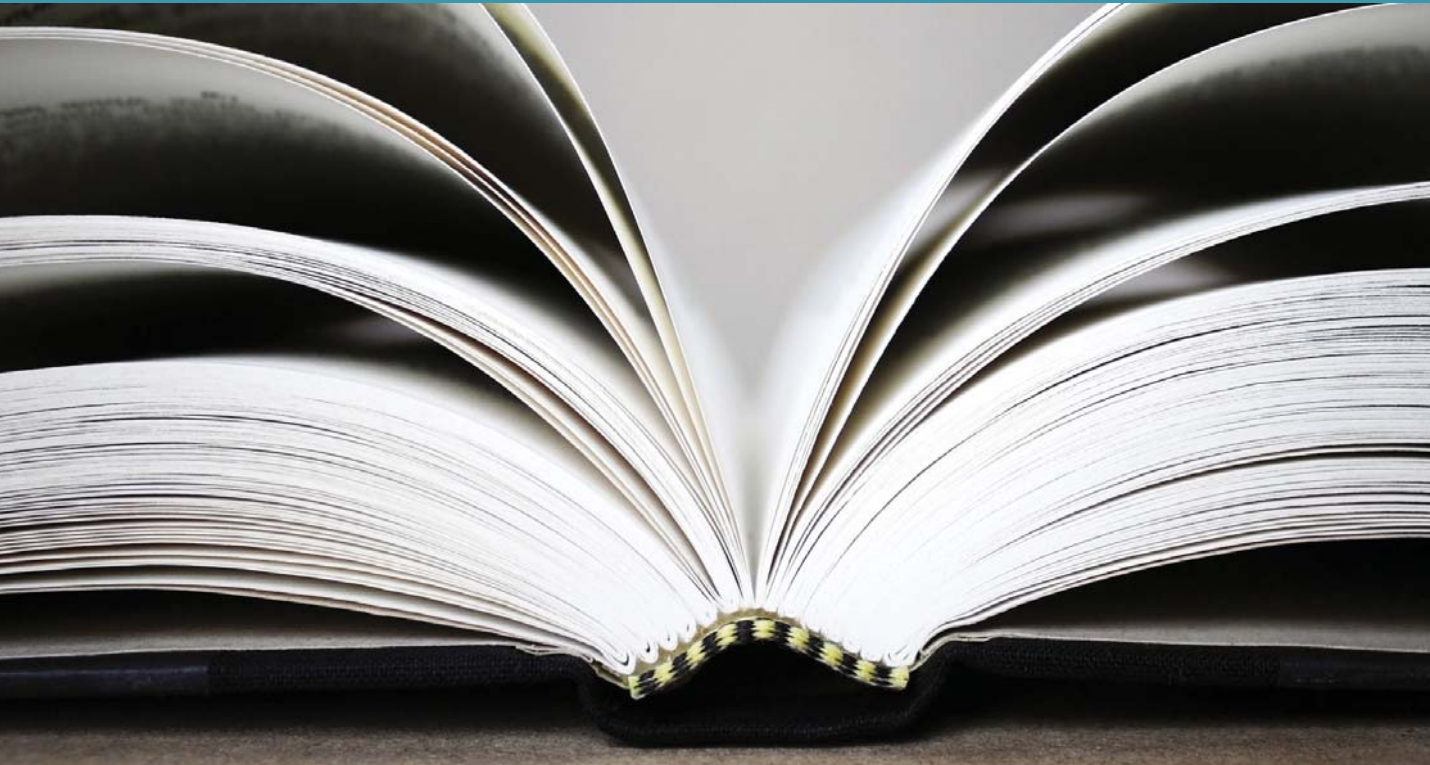
Writing Your Literature Review

This session will prepare you for undertaking a search of the academic literature in your chosen field of research by introducing you to some of the fundamental concepts and skills involved. It will help you to understand the purpose and nature of scholarly communication and why you need to use certain sources of information.

"A good overview and a push in the right direction – just what I needed."

By the end of the session you will be able to:

- Explore what makes a great literature review at doctoral level
- Discuss the importance of themes and arguments
- Review the significance of critical analysis
- Practice some of the skills necessary for writing a literature review

Training for	All students **Stage 1**
RDF Domains (Primary)	A1, A2.1, A2.2, A2.3, A2.4, A3.1, A3.2, A3.3, B2.1, B2.2, B2.3, B2.4, C1.4, C1.6, C1.7
RDF Domains (Secondary)	A3.3, A3.5, B1, B2.5, C2.2, D2.3

Be a Better Writer

This course is intended to inspire participants to enhance their writing skill. Be prepared for some constructive criticism!

Above all else, great academic writing is clear. Anything that obscures the meaning should be avoided. Examples of features which can obscure meaning include confused structure, lack of flow between points, overly long sentences or paragraphs, jargon, inaccurate punctuation, redundancy and generalisations.

Key Points
What makes great academic writing?

• Reducing redundancy
• Difference between spoken and written language
• What exactly are you writing about?

In order to make these decisions, you need to be exceptionally clear in your own mind about what each sentence, paragraph, section, chapter and ultimately the whole piece is about.

Please note that propriety will be given to full time MA/MSc (by Res) students and PhD researchers who have completed their data collection and analysis and who are at the writing up stage.

"This course includes all the basic and advanced points needed for academic writing."

Training for	All students **Stage 1**
RDF Domains (Primary)	A1, A2, A3, B1, B2, C1.4, C1.5, C1.6, C2
RDF Domains (Secondary)	B3.5, C1.7

Thesis Construction

Writing a doctoral thesis can seem like a huge task. It's certainly a larger piece of work than most people have completed before. This course addresses some of the practical issues surrounding how the thesis can be structured, how to ensure that the argument is clear and how to get down to writing so that the product is clear, accurate and on time.
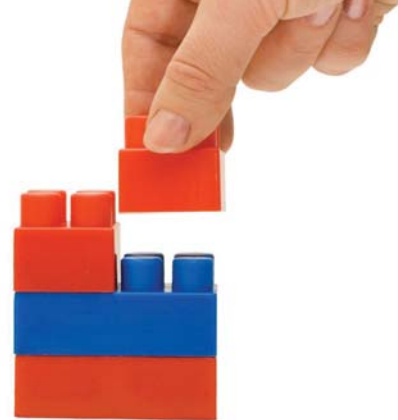
Training for	All students **Stages 2 and 3**
RDF Domains (Primary)	A1.5, A1.6, A1.7, A2, A3.2, A3.3, A3.4, B1.1, B1.2, B1.5, B1.6, B2.1, B2.2, B2.3, D1.2, D2 (if Arts/Practice based)
RDF Domains (Secondary)	B2.5, B3.5, C1.3, D2

Writing for Publication

"Two processes are involved in written communication. The first, in your mind, is the selection of words to express your thoughts. The second, in the mind of the reader, is the conversion of written words into thoughts. The essential difficulty is in trying to ensure that the thoughts created in the mind of the reader are the same thoughts that were in your mind." (Robert Barrass (1978) Scientists Must Write P.43) This course is intended to look at ways you can write in a way that means everyone understands exactly what you mean; and to help you to get what you write published.

Training for	All students **Stages 2 and 3**
RDF Domains (Primary)	A1, A2.1, A2.2, A2.3, A2.4, A3.1, A3.2, A3.3, B2.1, B2.2, B2.3, B2.4, C1.4, C1.6, C1.7
RDF Domains (Secondary)	A3.3, A3.5, B1, B2.5, C2.2, D2.3

Confidence to Present at Conferences

The ability to present ideas and research at conferences is a fundamental requirement for early career researchers, academics and non-academics. This workshop will help you be confident to deliver engaging, informative and reputation-building presentations for conference and career development purposes.

Aims of the workshop:

- To help you understand the key aspects of presenting with confidence
- To support you in designing and delivering appropriate presentations for conference purposes
- To develop your awareness of impression management and self-presentation to communicate your research output/outcomes

"The training was just right and the presenter shared her experiences throughout – it was all extremely helpful."

Training for	All students **Stage 1, 2 and 3**
RDF Domains (Primary)	B1.4, B3, D2.1, D2.2
RDF Domains (Secondary)	

IT COURSES

SPSS 1*

In this session you will learn how to use SPSS to make data files, how to label variables and how to import and export data from other applications (notably Excel). You will also learn how to calculate simple descriptive statistics, draw graphs, perform correlations and some simple inferential statistics such as the T test and non-parametric tests.

"Time well spent and very well explained."

Training for	Students with no previous knowledge of SPSS **Stage 4**
RDF Domains (Primary)	A1.2, A1.3
RDF Domains (Secondary)	A2.1, A2.4

SPSS 2*

This course continues on from the Beginners course (SPSS1) and therefore assumes some basic familiarity with SPSS. This session will show you how to perform one-way and multifactorial ANOVA, post hoc testing, linear regression analysis and multiple regression.

"Trainer's ability to explain things and relate to level of interest was excellent."

Training for	Students that have attended SPSS1 or have similar knowledge **Stage 4**
RDF Domains (Primary)	A1.2, A1.3
RDF Domains (Secondary)	A2.1, A2.4

*A pre-requisite for these two courses is a knowledge of basic PC skills

NVivo for Researchers

Come and find out how NVivo 11 can help with your Qualitative Research Project. NVivo is intended to help users organize and analyse diverse forms of qualitative data including documents, images, multimedia, social media and internet data.

These workshops introduce you to using and working with NVivo 11 to support you across all the stages of qualitative research and analysis, as well as considering ways of using the software to support reading, annotating, critically reviewing and synthesising research literature into your project. You will be introduced to the tools and ways of working to support data management, recording your developing ideas, keeping a research journal, annotating, coding, linking and exploring data for your project, as well as ways of using the powerful search, query and visualisation tools.

These workshops are for anyone engaging in qualitative research or reviewing literature for postgraduate research study or postdoctoral work. The workshops are not focussed on any one particular topic, area, method or discipline but are designed to show how NVivo can support research across diverse approaches, methodologies and types of qualitative data used in the social sciences and humanities.

Workshop skills are cumulative – from introducing what the software is and can do (workshop 1 – also available as self-paced online study), getting started on your own project (workshop 2), next steps (workshop 3) and then advanced approaches (workshop 4).

"A very good introduction to NVivo, it will be very useful in my future research."

Training for	Students at least 3-6 months into their Research Project **Stage 4**
RDF Domains (Primary)	A1, A2
RDF Domains (Secondary)	

*A pre-requisite is attending or having equivalent knowledge and experience to earlier workshops

Literature Searching

• Tips and strategies for constructing and undertaking a literature search in order to retrieve optimum results.

"Excellent friendly trainers – the session is well presented."

Training for	All students **Stage 4**
RDF Domains (Primary)	A1.4, A1.5, A1.7, D2.3
RDF Domains (Secondary)	D2.1, D2.2

Ref Works

Please note: attendees should have already created a Ref Works account via **http://www.uclan.ac.uk/students/study/library/refworks.php** and have some basic knowledge on Ref Works functionalities before signing up for this session.

Information available at **http://proquest.libguides.com/refworks**

- Importing references from subscribed databases, Google Scholar and the library catalogue
- Creating references
- Organising your references
- Editing and adding to your references
- Customising referencing styles
- Using Write n Cite to create citations and bibliographies

Training for	All students **Stage 4**
RDF Domains (Primary)	A1.4, A1.5, A1.7, D2.3
RDF Domains (Secondary)	D2.1, D2.2

EndNote

Discover the functionalities of desktop and web versions of EndNote bibliographical management tool.

- Creating libraries
- Importing references from databases and other sources
- Creating references
- Using Cite while you write to generate citations and bibliographies
- Synching desktop and online libraries

Training for	All students **Stage 4**
RDF Domains (Primary)	A1.4, A1.5, A1.7, D2.3
RDF Domains (Secondary)	D2.1, D2.2

Citation Analysis

Do you want to identify the top journals and authors in your research field? Do you want to know the impact of a specific journal article? This session explores the tools available in order to analyse the citation impact and metrics of authors, journals and journal articles.

Training for	All students **Stage 4**
RDF Domains (Primary)	A1.4, A1.5, A1.7, D2.3
RDF Domains (Secondary)	D2.1, D2.2

Abstracting and Indexing Databases

Workshop exploring the 2 major abstracting and indexing databases that UCLan subscribes to: SCOPUS and Web of Science. During this session the different functionalities of these databases will be compared and tips and tricks on how to optimise search strategies will be demonstrated.

Training for	All students **Stage 4**
RDF Domains (Primary)	A1.4, A1.5, A1.7, D2.3
RDF Domains (Secondary)	D2.1, D2.2

Health Databases

This workshop will introduce a range of search techniques for health databases including MeSH headings to assist with optimal retrieval of articles and locating best evidence. The workshop will utilise for example; Proquest Health databases, Medline, CINAHL, Dentistry and Oral Sciences Source (Dependent upon participants).

Training for	All students **Stage 1**
RDF Domains (Primary)	A1.4, A1.5, A1.7
RDF Domains (Secondary)	D2.1, D2.2

Business Databases

This workshop will be offering advanced searching techniques and strategies on databases in the subject disciplines of business and management to assist with optimal retrieval of articles reports and data. The workshop will utilise for example; Business Source Complete, Emerald, Passport GMID, Keynote, FAME (Dependent upon participants).

| Training for	All students **Stage 4**
RDF Domains (Primary)	A1.4, A1.5, A1.7, D2.3
RDF Domains (Secondary)	D2.1, D2.2

ONE-TO-ONE E-DATABASE SUPPORT

For further support concerning the use of e-Databases/resources you can arrange to have a one-to-one session with your College Librarian. Please see the contact details below and approach the librarian who provides support in your research area.

Librarian	Email/Telephone	College	School Responsibilities
Julie Brand College Librarian	cjbrand@uclan.ac.uk 01772 892102	Clinical and Biomedical Sciences	• School of Medicine • School of Dentistry • School of Pharmacy and Biomedical Sciences
Jane Bruney Associate College Librarian	jbruney@uclan.ac.uk 01772 892303	Business, Law, and Applied Social Studies	• School of Management • School of Social Work, Care and Community
Andrea Evans Associate College Librarian	aeevans@uclan.ac.uk 01772 892268	Culture and the Creative Industries	• School of Journalism, Language and Communication
Bob Frost Associate College Librarian	rsfrost@uclan.ac.uk 01772 892261	Science and Technology	• School of Engineering • School of Physical Sciences and Computing
Caroline Gibson College Librarian	clgibson@uclan.ac.uk 01772 892280	Science and Technology	• School of Psychology • School of Forensics and Applied Sciences
Julie Hitchen College Librarian	jhitchen@uclan.ac.uk 01772 892267	Culture and the Creative Industries	• School of Art, Design and Fashion • School of Film, Media and Performance
Michael Hargreaves College Librarian	mhargreaves@uclan.ac.uk 01772 892127	Health and Wellbeing	• School of Nursing • School of Community Health and Midwifery • School of Health Sciences • School of Sport and Wellbeing
Juliet Ibbotson Associate College Librarian	jcibbotson@uclan.ac.uk 01772 892125	Culture and the Creative Industries	• School of Film, Media and Performance • School of Humanities and the Social Sciences
Annette Ramsden College Librarian	aramsden@uclan.ac.uk 01772 892494	Business, Law and Applied Social Studies	• Lancashire Law School • School of Business • Centre for Excellence in Learning and Teaching (CELT)

Please see website for most up to date information
http://www.uclan.ac.uk/students/study/library/college_librarians.php
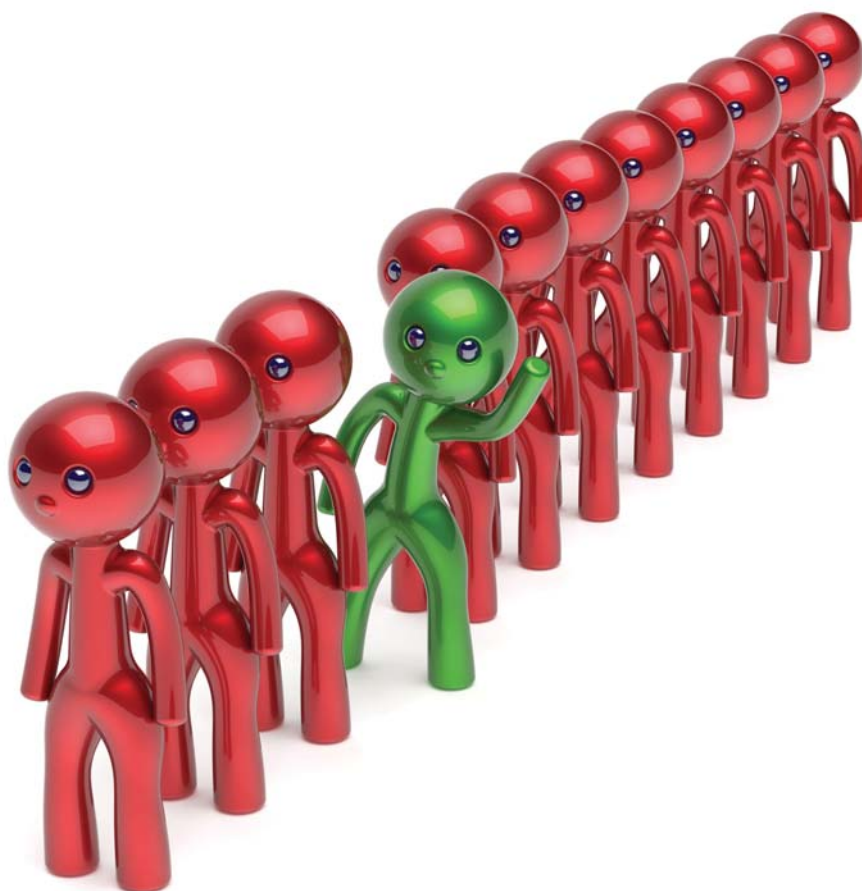
University Certificate in Postgraduate Career Skills for Researchers

There is life after research and this course aims to equip you with the necessary skills to build a meaningful and invigorating career.

This series of six sessions is available to all research students and can be accessed via live training, pre-recorded training videos or online Epigeum modules giving you a flexible mixed format delivery to work around your schedule.

The course structure:

- Personal Brand
- Career Awareness
- Getting yourself Published
- Launching an Academic Career
- Marketing yourself to Employers
- Assessment Centres and Online Applications

"Great course and very helpful overall!"

"Thank you for running the course and making it easy to access."

Training for	Students in their final years of study **Stage 3**
RDF Domains (Primary)	A1.4, A1.5, A1.6, A1.7, A3.3, A3.4, B1, B3, D1.6, D2.1
RDF Domains (Secondary)	

CVs and Covering Letters - Inside and Outside Academia

Session Aims - An opportunity for participants to consider what makes an effective CV/Covering Letter and to ensure that your CV gives the best possible chance of securing an interview! Focus is on both within and outside academia.

Course Content:

- Purpose of a CV
- What makes an effective CV?
- CVs targeted at other sectors
- CVs for Academia
- Critical evaluation of CV examples
- Covering letters
- Further resources

"Really informative course, all researchers should attend."

Training for	Students in their final years of study **Stage 3**
RDF Domains (Primary)	A1.6, A1.7, A3.4, B1.3, B1.4, B1.5, B1.6, B2.1, B3, D2.1, D2.2
RDF Domains (Secondary)	A2.2, B1.1, B1.2, B2.3, C1.5

Identifying Your Future Career

This workshop will act as a valuable trigger for your career choice thinking. It's surprisingly normal to be confused about your future career path or even clueless about what is actually available. Are you aware of all the possible career options that exist for you?

Whether you are considering an academic career or want to take into account career choices in other public or commercial sectors, it is worth taking the time to explore what your future career possibilities could be.

By attending this workshop you will learn about:

- Typical postgraduate career destinations
- Ways to map out your own career possibilities
- Sources of help in determining just what career choice would suit you best
- The job market and your own employability

By the end of the session you will have started to:

- Think seriously about what you can do next career wise
- Know how to access the job opportunities that suit you
- Be more confident about your future career path and plans

"It was an extremely useful session, the sort of thing I wish I had done earlier!"

Training for	Students in their final years of study **Stage 3**
RDF Domains (Primary)	A1.6, A1.7, A3.4, B1.3, B1.4, B1.5, B1.6, B2.1, B3, D2.1, D2.2
RDF Domains (Secondary)	A2.2, B1.1, B1.2, B2.3, C1.5

ONLINE LEARNING

Epigeum

Epigeum is a suite of online tutorials which provide PhD students, junior post-docs and academics that have recently begun their research careers, with many of the research skills that they need. The courses cover a wide range of subjects, ranging from an introductory video demonstrating why research skills are so important, through to a course on how researchers can set up their own business and commercialise their ideas.

Designed to either complement our live training provision, or for students who are either part-time or off-campus, Epigeum offers high quality training that you are able to work through in your own time to both complete your full range of RDF required skills, or to develop new ones.

To Access Epigeum

- Log into the Student Lobby
- In the Organisational Catalogue box, click Browse Organisational Catalogue
- Type 'Epigeum' into the Search Bar and click Go
- Hover over the drop down arrow next to your ID and you will be given the opportunity to Enrol. Once you select Enrol – an email requesting access for you will be generated and sent to the Research Development and Support team. Once approved (usually with 24 hours), you can then go back to your Student page and Epigeum will be listed

For further information please see Epigeum on the eLearn/Blackboard or contact **training4research@uclan.ac.uk**

An Introductory Video to Research Skills (RES 001)

Welcome to our online learning environment where you will find content ranging from 'Researching your Literature Review' to 'Entrepreneurialism'; from 'Managing your Supervisor' to 'Choosing a Conference' - and a wealth more besides. Each chapter that you select has various sub headings. You can jump ahead, jump back, or watch them in sequence, pausing as and when you want to. There is a mixture of lesson text and video, worksheet and reflection - approaches to suit all preferred learning styles. The Introductory Video is just that - a video that shows you what the Research Suite of 18 modules has to offer you, and how you can use them to support your research. We very much hope that you enjoy them, and find them useful. Any feedback, questions or queries, please email the training team on **training4research@uclan.ac.uk** or call **01772 895090**.

Training for	All students **Stage 5**
RDF Domains (Primary)	
RDF Domains (Secondary)	B1, B2, B3

Intellectual Property in the Research Context (RES 002)

An awareness of Intellectual Property and its related issues is now essential for anyone working within the research context. This course is a short introduction to the topic and aims to give you knowledge of the key areas that affect you as a researcher.

Training for	All students **Stage 5**
RDF Domains (Primary)	C1.4, C1.6
RDF Domains (Secondary)	C1.3, C1.7

Getting Published in the Arts (RES 003)

Why publish? To extend knowledge? To engage in academic debate? Or because you feel under intense pressure to do so in order to develop in your career? The aim of this course is to give guidance and support to arts and humanities students who are keen to put their research into the public realm, through academic papers and books. To assist us in this task we have drawn on the help of a group of people in the same position, early career researchers, people who have recent experience of trying and succeeding to publish. You will meet them as you progress through the course and we are sure that you will find their experiences and thoughts helpful. We have also brought together a group of editors to give us their thoughts on how to get published - allowing you to hear the experiences of people who are directly involved.

Training for	All students **Stage 5**
RDF Domains (Primary)	A1, D2
RDF Domains (Secondary)	A2, B1

Getting Published in the Sciences (RES 004)

Welcome to this e-learning resource. The course is aimed at encouraging science postgraduates and postdoctorates to publish and at advising them how this may best be accomplished. The course should take you about 100 minutes and may be completed in several visits.

Training for	All students **Stage 5**
RDF Domains (Primary)	A1, D2
RDF Domains (Secondary)	A2, B1

Ethics 1: Good Research Practice (RES 005)

Ethics standards apply very generally across many topics, methods and disciplines of research. This course has used several health research examples, because the ethics questions tend to stand out clearly in health research. Viewers working in other disciplines are invited to consider how the same questions apply to their own research. If you would like to learn more about general ethical standards please go to the Resource bank at the end of the course.

Training for	Students in their final years of study **Stage 5**
RDF Domains (Primary)	B1.3, B1.5, B1.6, C1
RDF Domains (Secondary)	

Ethics 2: Working with Human Subjects (RES 006)

This course is about the ethics of involving human participants directly, or indirectly, in research projects. Due to the broad nature and scope of ethical research this course focuses mainly on research in health, and life and social science areas. The principles introduced in this course undergird ethical research involving humans in most disciplines.

Training for	Students in their final years of study **Stage 5**
RDF Domains (Primary)	B1.3, B1.5, B1.6, C1
RDF Domains (Secondary)	

Project Management in the Research Context (RES 007)

This course will introduce you to some of the key concepts of conventional project management and show you how they can be used in the academic research context. Project life cycle is the term used to describe the collection of logical stages or phases that map the progress of a project from its beginning to its end. The project life cycle contains four key phases.

Training for	Students in their final years of study **Stage 5**
RDF Domains (Primary)	C2
RDF Domains (Secondary)	B2

Career Planning in the Arts, Humanities and Social Sciences (RES 008)

This course aims to encourage PhDs and early career researchers (postdocs and research fellows) to explore the skills and motivations for a career in academia or beyond. During the course there will be frequent references to the term 'researcher'. This will be used generically and refer to PhDs, postdocs and research fellows. During the course you will see how important it is to assess and continually re-evaluate your skills and interests and recognise that personal factors such as location and family circumstances can influence and affect career planning. Even if you already have a career path planned, the course has a number of exercises for you to work through, including marketing yourself to prospective employers in applications and in interviews.

Training for	All students **Stage 5**
RDF Domains (Primary)	B1, B2, B3
RDF Domains (Secondary)	A3, D2

Career Planning in the Sciences (RES 009)

This course aims to encourage postgraduate and postdoctoral scientists to actively use career management techniques. The use of these techniques can be valuable whether planning a career in academia or exploring a variety of alternative career options. As you work through the course you will build up a picture of your skills, personal preferences and style, which can help you in your career choice. Even if you have a definite career plan in mind this course can help determine your suitability and may identify areas that you can work on to increase your chances of success.

Training for	All students **Stage 5**
RDF Domains (Primary)	B1, B2, B3
RDF Domains (Secondary)	A3, D2

Managing Your Research Supervisor or Principle Investigator (RES 010)

This course is aimed at encouraging postgraduates and post doctorates to consider and actively manage their relationship with their supervisor or principal investigator. The course should take you about 100 minutes and may be completed in several visits.

Training for	All students **Stage 5**
RDF Domains (Primary)	B1, B2, D1
RDF Domains (Secondary)	D2

Selecting a Conference, Presenting and Networking (RES 011)

This course is aimed at encouraging postgraduates and postdoctorates to attend conferences and improve their presenting and networking skills. The course should take you about 100 minutes and may be completed in several visits.

Training for	All students **Stage 5**
RDF Domains (Primary)	B1, B2.1, B3, D2
RDF Domains (Secondary)	

Research Methods in the Arts and Humanities (RES 012)

This course aims to develop your awareness of the practical and conceptual skills that support effective independent scholarly research in the arts and humanities. The goal is to help you understand the issues involved in making an informed choice about the research methodology and approach most suitable for your own specific project.

During the course you will meet three postgraduate research students - Casey, Lois and Katherine - who are all, like you, embarking on postgraduate research. You will follow them as they discuss the formulation of their topics with their supervisors, select appropriate methods of research and analysis, and reflect upon their research practice.

Training for	All students **Stage 5**
RDF Domains (Primary)	A1, A2, A3
RDF Domains (Secondary)	D1.3

Research Methods in the Social Sciences (RES 013)

Social science research helps us to understand, shape and critique the increasingly complex world in which we live. There is a wide range of approaches and methods available in the area, and social scientists need to choose the most appropriate. This requires them to have a clear understanding of the nature of social science research and of the issues involved in it. This course gives you an overview of the field, from the early stages of framing your research question, through the research, to writing up your findings, and then deciding on your next steps.

Training for	All students **Stage 5**
RDF Domains (Primary)	A1, A2, A3, C1.2, C1.5, C1.7, C2
RDF Domains (Secondary)	C2

Research Methods in the Sciences (RES 014)

Scientific research includes a wide range of approaches and methods. This course gives you an overview of the field from the early stages of framing your research question, through the research, to writing up your findings and on to deciding on your next steps.

Training for	All students **Stage 5**
RDF Domains (Primary)	A1, A2, A3, C2
RDF Domains (Secondary)	C1, D2

Research Methods in Literature Review (RES 015)

The purpose of this course is to guide you systematically through the process of undertaking a literature review so that you are able to undertake your own comprehensive review, according to the type of review required by your academic project.

Training for	All students **Stage 5**
RDF Domains (Primary)	A1, A2, A3
RDF Domains (Secondary)	D2

Entrepreneurship 1 – Are you an Entrepreneur? (RES016)

What does being an entrepreneur in the academic context involve? Are you suited to commercial entrepreneurial activity? These are the basic questions that this course attempts to answer.

Training for	All students **Stage 5**
RDF Domains (Primary)	B1, B2, B3, D3.3
RDF Domains (Secondary)	

Entrepreneurship 2 – Opportunity Recognition, Creation and Evaluation (RES 017)

Whether or not you eventually plan to establish your own business, this online learning resource will help you to: understand why and how opportunities arise; spot opportunities to add value in your current environment; evaluate ideas to establish whether they are worth pursuing and argue a business case for your ideas.

Training for	All students **Stage 5**
RDF Domains (Primary)	B1, B3, C1.4, D3.1
RDF Domains (Secondary)	C2

Entrepreneurship 3 – Entrepreneurial Resources (RES018)

This online learning resource is designed to help you think in a systematic, yet creative, manner about raising the resources you need to start a new venture.

Training for	All students **Stage 5**
RDF Domains (Primary)	A3, B1, C3, D1, D3.3
RDF Domains (Secondary)	C2

Statistical methods for research

Context

Statistics is an area of much demand nationally. To satisfy this we have 7 Statistical Methods for Research modules as detailed over leaf.

Licences are limited for these modules, so if you wish to gain access, please ask your Director of Studies to email **training4research@uclan.ac.uk** confirming your requirements for this training.

'Statistical Methods for Research' is designed to provide Master's degree and PhD students with a strong foundation in statistics, covering key areas such as confidence intervals, hypothesis testing and statistical modelling.

The programme provides the vast majority of Master's level students with the statistics they will need to complete their research reports, and provides PhD students with the statistics they need to understand and evaluate the statistical test models they will use in their research.

Taking a cross-disciplinary approach and compatible with all major statistics packages, this programme will be rich with scenarios, practical applications and interactive statistical models and will be supported by optional peer-to-peer online forums and interaction.

The course is based on the design of a highly successful course from the University of Reading that has recorded an average improvement of 122% in students' performances.

The statistics modules are available in 5 versions:

- Biomedical
- Business
- Engineering and Technology
- Natural Sciences
- Social Sciences

Programme learning outcomes.

This programme will:

- Give students an introduction to the statistical modelling process
- Introduce students to statistical thinking and how to describe data
- Help students use statistics to make good generalisations
- Show how statistics can be used for hypothesis testing
- Focus on practical statistical modelling
- Show hypothesis testing on proportions and how to interpret the results

Course titles and learning outcomes:

Course 1: Introduction to Statistics in the context of research

By the end of this course you will be able to:

- Assess how much you already know about Statistics
- State what the 'Statistical Methods for Research' programme covers
- Explain how Statistics can contribute to your research project
- Outline the stages of a modern statistical investigation
- Recognise that there are two parts to a statistical model, written as Data = Pattern + Residual

Course 2: Thinking statistically – Describing data well

By the end of this course you will be able to:

- Identify and distinguish between categorical and numerical variables
- Select the relevant statistical tools and describe the types of summary appropriate for categorical and quantitative variables
- Produce a chart using a five-number summary, called a box plot
- Recognise and represent the structure of a dataset by identifying the groups occurring in the study units
- Explain what is meant by the mean and median of a set of data, and know when to use each measure
- Explain measures of variability (or dispersion) such as quartiles and standard deviation

Course 3: Thinking statistically – Making good generalisations

By the end of this course you will be able to:

- Define the terms sample, population, estimate, standard error, Normally distributed and confidence intervals
- State what is meant by 'the sampling distribution of the mean'
- Explain why presenting the standard error of an estimate is essential for making a valid generalisation
- Explain how the Normal distribution is used to compute a confidence interval
- Interpret a confidence interval

Course 4: Which hypothesis should I use?

By the end of this course you will be able to:

- Explain the logic of statistical hypothesis testing
- Correctly interpret the result of a hypothesis test through the use of a p-value and the null hypothesis
- Interpret the results of the hypothesis tests produced by statistical packages
- Decide if a hypothesis test approach or an estimation approach is more appropriate for the analysis of a research issue
- Explain how estimation and hypothesis testing come together into a single logical statistical procedure

Course 5: Statistical modelling

After completing this course you will be able to:

- Explain to your colleagues what a statistical model is
- Recall some of the advantages of using a statistical model
- Explain the link between a one-sample t-test and the simplest summary model (i.e. the 'null model', which is the starting point of all summary models)
- Understand that straight line regression is the next step from a null model when the single explanatory variable is measured on a continuous numerical scale

Course 6: Analysis of categorical data

By the end of this course you will be able to:

- Apply the logic of statistical hypothesis testing to categorical data outcomes
- Correctly interpret the result of a hypothesis test through the use of a p-value and the null hypothesis when applied to categorical data outcomes
- Interpret the results of the hypothesis tests produced by statistical packages when applied to categorical data outcomes

Course 7: Conclusion

By the end of this course you will be able to:

- Complete a model report, using the practical knowledge you have gained in the previous courses
- Gauge how much your statistical knowledge has improved since the beginning of the programme

HOW TO NAVIGATE THROUGH YOUR DOCTORAL JOURNEY

We understand that being a research student can be challenging and so here at the University of Central Lancashire we not only offer specialised training and development in order to assist you, but we also aim to ensure that all aspects of your research are successful.

As such we have put together a number of pieces of general help and information that you may find useful in answering some of your basic queries or giving you a starting point for further discussion.

How to be a successful researcher

Postgraduate research study can be an exciting journey to undertake, and essentially most of it is embarked upon under your own steam. To help to ensure that you achieve the best possible outcome for your studies, here at UCLan we have an excellent supervision programme to support you, but there are also a few simple points that you should bear in mind to ensure that as little as possible impinges on your research progress.

Timely completion
An important topic to consider regarding your study is its timely completion. In general most full time PhD programmes should be completed in 3 years (MPhil in 2 years and Masters by Research in 1 year), although under some circumstances a maximum of 4 years is available. For part-time research awards you can expect to double these time frames. In order to keep to the notion of timely completion, it is important to set clear objectives which have been agreed with your Director of Studies and ensure that you work to them. Also plan your time over the length of your award, leaving sufficient time for writing up, as accommodating revisions can be a common cause of late submission.

Realistic expectations
Following on from the above point concerning timely completion of your research, it is also worth rationalising your own expectations of what can be achieved within your time frame. Although it may be tempting to attempt to follow in the footsteps of some of the great researchers of our time, it may not be realistically possible to do so. In conversation with your supervisory team, it may be a good idea to source a thesis in a similar to field to yours that has made a modest but real contribution to knowledge and set that as your minimum standard. Also, think realistically about what you can achieve in your time frame and don't forget that your thesis is not necessarily the end of your research, you may be able to tackle that final analytical section, extra laboratory experiment, or set of interviews after you have submitted.

Handling your experience
The final important point to note when considering your doctoral journey is that you are the driving force behind your research and therefore you have the ability to shape your own experience. In many cases, you will get out of your time as a researcher only as much as you put in. For example you are most likely to have a great relationship with your supervisory team if you put the work in to establish one. Or if you are feeling that you are struggling with a certain part of your research, take it upon yourself to look for other avenues of support, e.g. our excellent training provision can be just one way of helping you to master statistics or undertaking your literature review.

Finally, remember to take pride in what you are doing, your research could end up changing the world (think about Crick and Watson's work on DNA), so ensure that you take your responsibility in your own hands.

A strategy for successful project progression

One of the most important means of ensuring a successful project is to keep a clear project plan, with each stage of your research degree recognised and highlighted. Of course, no two doctoral journeys are the same and so the existence of a universal strategy for successful progression would be a fallacy. However, the key stages indicated below are common milestones for every researcher. Here are a number of hints and tips to guide you towards the successful completion of these milestones.

Project Definition
This is the very beginning of your doctoral journey and so it is here that you should identify and plan how you are going to complete your research. Basic facts such as your Project Title and Main Aim must be finalised along with creating your proposed Plan of Work (and how this relates to other research in your field) and it is at this stage that you must divide responsibilities between any collaborators and specify roles and responsibilities of yourself and your supervisory team. This is also the time to plan your time table.

Research Programme Approval
Research Programme Approval is the formal approval of your project by the University. It will be your first opportunity to experience the peer review process which is a part of becoming a researcher. The period leading up to this allows you to refine and confirm your project design so that you can present your programme of work and training to your school for approval. It is imperative that you complete your Research Programme Approval (RPA) within the required timescales.

Literature Search/Review and Record Keeping
It is vital that you find out where and how your proposed research fits in with the global activities of other researchers in your area. The duplication of research is both costly and demoralising for the researcher who got there second. Therefore you must fully research your area of study and ensure that you keep abreast of new developments. As part of this it is imperative that you keep a thorough and up to date record/database of related information and literature.

Transfer from MPhil to PhD

If you are on the MPhil/PhD route and your progress has been satisfactory, you will usually apply to transfer to PhD. This is a benchmark that establishes whether you have produced work of sufficient quantity and quality to suggest that you can achieve PhD standard in the time allowed and that your research will eventually produce an independent and original contribution to knowledge. You will be asked to write a Transfer Report detailing the work already completed, a statement of intended further work, and details of the original contribution that will be made to the subject during the PhD phase. In addition, you will have a Transfer Viva in defence of your Transfer Report.

Progression

Satisfactory progress must be maintained in order to gain your research degree. Your Supervisory Team, Collaborators, will monitor your progress continuously (if applicable), and also your Research Degree Tutor will monitor your progress as well.

This will be achieved via a combination of informal discussions and more formal supervision and progress monitoring meetings, which will take place on a regular basis. These meetings should be effective and efficient, and it is likely to greatly assist you if you were to take the initiative in these meetings, for example:

- Set an agenda and prepare and circulate items/reports/notes in good time before the meeting
- Keep (and circulate) minutes detailing main points of discussion, any decisions made and agreed actions with names clearly identified for those responsible for their implementation
- Ensure that timescales are agreed for reporting back on actions taken
- If appropriate reserve some time to present any demonstrable developments achieved since the last meeting
- You should be collating evidence of your supervision meetings, research activities, and achievements throughout your programme of study in your progress file

PRESENTING YOUR RESEARCH

Our research student community is continuing to grow and we recognise the value of presentation as a medium for communicating research. In response to this we host two annual research student conferences, which provide all students with the opportunity to present their research in a variety of formats.

Three Minute Thesis (3MT)

3MT is a great way of showcasing your research and is open to all research degree students.

Three Minute Thesis is a research communication competition developed by the University of Queensland in 2008. Students have three minutes to give an engaging and dynamic talk on their thesis topic and its significance, in language appropriate to an intelligent but non-specialist audience.

Initial qualifying rounds will be held in December of each academic year, with top presenters being selected and progressing through further heats to a final round in June. The overall winner will then represent UCLan at the national Vitae Three Minute Thesis Competition in September. For further information please contact **training4research@uclan.ac.uk**

Research Student Conference

The Annual UCLan Research Student Conference is an excellent way of honing your presentation and poster skills, along with getting together with other research students to share knowledge, experience and ideas. This conference targets those who are more advanced along their research journey.

Presentations and posters are invited from across the UCLan research society, which are then assessed and feedback given. The conference is run along traditional conference lines and awards are presented for:

• Best and Runner up Talk
• Best and Runner up Poster

Information will appear about these events in due course, please see the link below:

https://www.uclan.ac.uk/students/research/conferences.php

PERSONAL DEVELOPMENT LOG

Please complete the below Personal Development Log with details of the training that you have attended and how each course meets the RDF Criteria, also include details of any practical experience you have received within each of the 4 areas.

This is in order to ensure that you can demonstrate the full range of Researcher Development Framework skills. Please refer to pages 3 and 4 for more information.

RDF Domain	Training / Experience Activity
Domain A: Knowledge and intellectual abilities – the knowledge, intellectual abilities to do research	
Domain B: Personal effectiveness – the personal qualities and approach to be an effective researcher	
Domain C: Research governance and organisation – the knowledge of the standards, requirements and professionalism to do research	
Domain D: Engagement, influence and impact – the knowledge and skills to work with others and ensure the wider impact of research	

FURTHER RESOURCES TO SUPPORT YOU

Vitae

Vitae is the national organisation that supports UK higher education institutions (HEIs), employers, policy-makers and researchers in the personal, professional and career development of postgraduate researchers and research staff.

We highly recommend that you visit the Vitae website **www.vitae.ac.uk** where you will find useful resources, valuable information and advice which will help you with your professional development and career.

Research Councils UK (RCUK)

RCUK is the strategic partnership of the UK's seven Research Councils:

- Arts and Humanities Research Council (AHRC),
- Biotechnology and Biological Sciences Research Council (BBSRC)
- Engineering and Physical Sciences Research Council (EPSRC)
- Economic and Social Research Council (ESRC)
- Medical Research Council (MRC)
- Natural Environment Research Council (NERC)
- Science and Technology Facilities Council (STFC)

The RCUK website **www.rcuk.ac.uk** provides a wide range of publications and resources plus links to the seven research council websites.

World-leading research with real-world impact