



University
of Glasgow

Graduate School – Science and Engineering

**DOCTORAL
RESEARCHER
TRAINING
PROGRAMME
2018-19**

**WORLD
CHANGERS
WELCOME**

WELCOME

The University has a comprehensive training programme which is responsive to the needs of its postgraduate researchers. Research is not only about the work you undertake in your lab or in your fieldwork, but about wider engagement, developing new skills and meeting other PhD students from different disciplines. You should therefore take advantage of the training opportunities provided as these will be of considerable benefit to both your PhD studies and your career.

It is important to discuss your training requirements with your supervisor at the start of, and throughout your PhD studies. Courses you have attended and the skills training activities you have undertaken should be recorded in your Training Needs Assessment. You will be required to submit this as part of your Annual Progress Review and it will be reviewed by the assessment panel.

The training programme is overseen by the Graduate School. Any enquiries can be directed to Heather Lambie, the Graduate School Manager.

Additional training opportunities will be added over the forthcoming year and you will receive email alerts in advance. In addition to the courses included in this brochure, students can also access IT training detailed at: glasgow.ac.uk/services/it/training

Updates will also be posted on twitter so please follow:

@researchdreams @UofGSciEngGrads

COURSE BOOKING

All courses unless otherwise specified can be booked through My Campus.

FAQs and further details about how to book are provided at:

glasgow.ac.uk/research/ourresearchenvironment/prs/pgrcoursesandevents/#/howtobookandcancelcourses.

1. Search to enrol for courses using My Campus (under Self Service – Student Centre/Enrolment/Add by Search/Course Career: PG Research)
2. When in the 'Search for Classes' Page' under the 'Course Catalogue' section, please add the 4-digit number at the end of the course code, for example, RDSA6006 (remove letters and add numbers only). Select 'Postgraduate Research' from the drop-down menu – select search.
3. Select your preferred Course and Date which will be added to 'your choices'
4. Make sure that you click on the 'My Choices' tab. Select the courses from the table view and then click on 'Enrol' to complete enrolment on the course/workshop.

Course venues will be entered on My Campus but may be subject to change. You will receive an automated email prior to the event confirming the final details.

Some courses are very popular so early booking is advised. We aim to offer repeat sessions of popular courses and should you be unable to book a place on a course you consider integral to your research please contact scieng-gradschool@glasgow.ac.uk. In view of the popularity of most courses, it is also important that you cancel any bookings you are unable to attend in order that someone else can benefit from the place.

If you are unable to enrol as a course is full, please add your name to the waiting list as further sessions may be arranged if there is sufficient demand.

COMPULSORY COURSES FOR NEW RESEARCH STUDENTS

Title:	EQUALITY AND DIVERSITY TRAINING
RDF Domain:	C
Speaker:	Equality and Diversity Unit
Credits:	1 (compulsory for all new postgraduate researchers)
Duration:	Online course
Description:	<p>The University of Glasgow is committed to promoting equality in all its activities and aims to provide a work, learning, research and teaching environment free from discrimination and unfair treatment. All staff and postgraduate researchers need to be aware of our individual and collective responsibility in relation to equality following the introduction of the Equality Act 2010 and the University has developed a wide range of training resources for staff and postgraduate researchers to address this. This module should be completed by ALL postgraduate researchers in first year. It outlines the nine protected characteristics covered under the Equality Act 2010. The module outlines definitions such as the different forms of discrimination (direct, indirect etc), what constitutes bullying or harassment, and provides a brief overview on cultural awareness.</p> <p>You can work through the course at your own speed. You can also stop the courses at any point and resume later from that same point.</p> <p>The aim of the course is to:</p> <ul style="list-style-type: none">• Understand what equality and diversity are and why they are important.• Review the key legislation and its implications• Examine ways to break down barriers to equality and diversity – prejudice, preconceptions and stereotypes• Explore key tips and guidelines for promoting equality and diversity <p>The link to access the course through Moodle can be found here: https://moodle2.gla.ac.uk/login/index.php.</p>

Title:	INTRODUCTION TO THE GENERAL DATA PROTECTION REGULATION (GDPR)
RDF Domain:	C
Speaker:	
Credits:	NA
Duration:	Online course (mandatory)
Description:	<p>Completion of the Introduction to the General Data Protection Regulation (GDPR) is mandatory for all PGR students.</p> <p>The course is designed for PGR students seeking a basic overview of the main provisions of the General Data Protection Regulation (GDPR), which came into force on 25 May 2018. It will debunk some of the myths surrounding the Regulation and provide a comprehensive understanding of the individual's and the University's obligations under the GDPR.</p> <p>Login to Moodle to enrol on this course glasgow.ac.uk/myglasgow/dpfooffice/gdpr</p>

Title:	RESEARCH DATA MANAGEMENT (RSDC 6025)
RDF Domain:	C
Speaker:	Data Management Service
Credits:	1 (compulsory for all new postgraduate researchers)
Duration:	1.5 hours
Description:	<p>When data are created as part of academic research, they should be carefully stored, managed and, wherever possible, shared. This course will introduce researchers to examples of good research data practice. Researchers will learn about data management in an accessible way that they can apply to their own work.</p> <p>Topics will include: the data lifecycle; funder compliance; and what should happen to your data when you graduate. The session will be illustrated with real-life examples. The course is designed for researchers in their first year of postgraduate study but is also suitable for researchers in other years who have not received training in research data management.</p>

Title: RESEARCH INTEGRITY (RSDC 6023)

RDF Domain: C

Speaker: TBC

Credits: 1 (compulsory for all new postgraduate researchers)

Duration: 2.5 hours

Description: Responsible, ethical research and publication practices are a key obligation for all researchers. While new researchers are likely to already be familiar with some aspects of research integrity, such as experimental design, appropriate use of statistics, and issues around plagiarism, there are other accepted principles that they may be less aware of and thus might unwittingly breach. These principles include, but are not limited to, practice around: collaborations; matters of intellectual property, including publishing parts of a thesis before or after submission; and data management. Breaches in research integrity are damaging not only to the individuals and their institutions, but also to public trust.

The Research Integrity workshop covers the principles of good and ethical practice in research and its publication. It aims to raise awareness of the problems that can arise and how to avoid them. The workshop includes a presentation, a Q&A opportunity, and an interactive case-study session where participants will work in small groups. The workshop is open to researchers at all levels but is compulsory for researchers in the first year of their PhD. Online resources to support learning about the topics above are available here: glasgow.ac.uk/researchintegrity

ENGAGEMENT

You are expected to manage your own engagement in the training programme. As such, although most courses are optional, a certain level of engagement is compulsory (although please note the required courses below). You should undertake at least **8 credits of training in your first year** and at least **6 in your second year**. All training is optional for third year students. Please note that training credits are not recorded in My Campus and you should simply keep a record on the Training Needs Assessment form.

Year of Study	Full-time	Part-time
1st	8 credits	4 credits
2nd	6 credits	4 credits
3rd	Optional	3 credits
4th	Optional	3 credits
5th	NA	Optional

Some Schools require compulsory attendance at specified courses. For example, all first year PhD students undertaking fieldwork in the School of Geographical and Earth Sciences are required to attend the Outdoor First Aid course and all students in Psychology are required to take the Ethics course. For Physics and Astronomy students, there must be engagement in workshops organised by SUPA. This training can be accredited if it involves transferable skills, i.e., it is not subject-specific or technical in nature. For details of these courses see: www.supa.ac.uk/Graduate_School/courses/courses.htm

COMPULSORY COURSES

The following courses are mandatory for all Science and Engineering PhD students: Research Integrity, Data Management, Equality and Diversity and General Data Protection Regulation (GDPR) training (the latter two courses are online only).

OTHER TRAINING

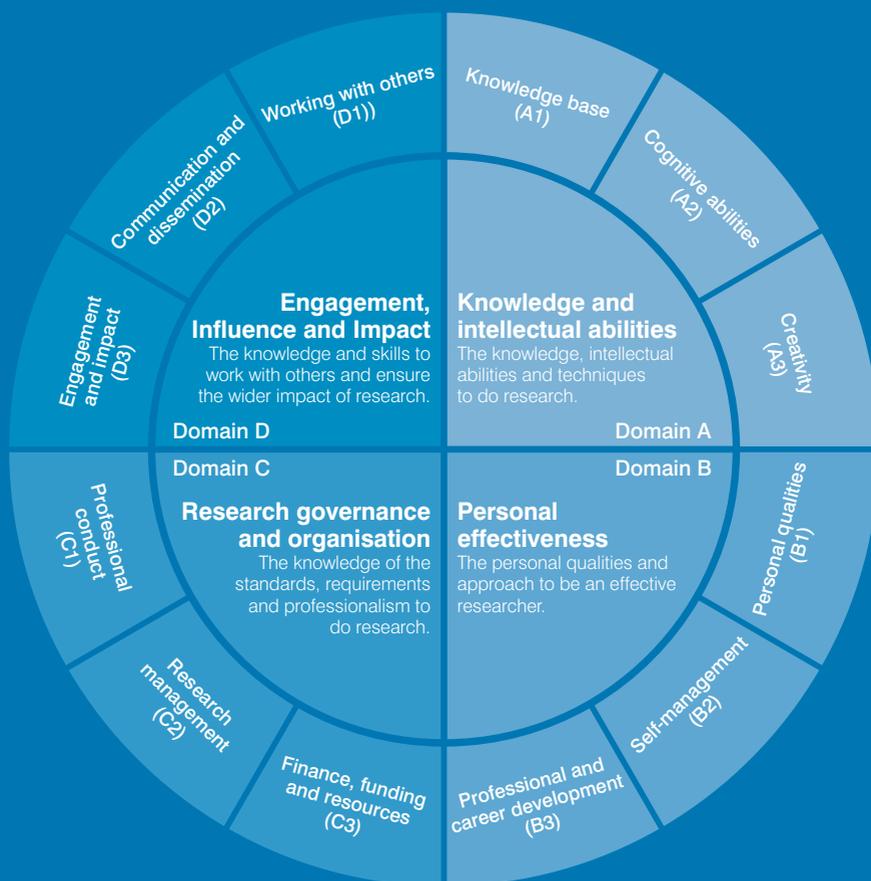
Credits can also be obtained for other relevant activities (for example, participation in conferences (where presenting), external training, IT training, the STEM Ambassador Programme, the Bright Club, or for contribution to The GIST Magazine), where the aim of taking part in the activity is clearly in developing transferrable skills, rather than in learning subject-specific material. The allocation of credits for such activities should be assumed to be 1, although if your commitment is considerable you can contact the Graduate School Manager to discuss this further. Participation in some of these activities has a maximum of one credit each year. The aim is to ensure that doctoral researchers undertake a diverse programme of activity, rather than, for example, attending 6 conferences or 4 IT training sessions in one year.

PROFESSIONAL SKILLS DEVELOPMENT

The skills you are awarded credits for should be 'transferable', i.e. allow you to develop attributes or competencies which are applicable to your research and career in ways which are not only relevant to your specific research project (for example, you would not be awarded credits for statistics training if you are studying statistics, nor for attending a workshop covering topics in psychology if you are a psychology student).

RESEARCHER DEVELOPMENT FRAMEWORK

The Vitae Researcher Development Framework (RDF) was developed by and for researchers. It is structured into four domains (as shown in the diagram). Each area is considered to be a key component of a research career and it is expected that you will develop your skills and knowledge in each of these throughout the course of your PhD. You are therefore expected to consider this framework when choosing your courses, and to provide details in your Training Needs Assessment. A detailed explanation of each area can be found here: www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework



OTHER COURSES – RDF DOMAIN A KNOWLEDGE AND INTELLECTUAL ABILITIES

Title: ACADEMIC WRITING: BOOTCAMP

RDF Domain: A

Speaker: Jennifer Boyle, Writing Centre Co-ordinator

Credits: 1

Duration: 1.5 hours

Description: Places by application only – time to work on your writing, with no distractions.
Email: jennifer.boyle@glasgow.ac.uk

Title: ACADEMIC WRITING: EFFECTIVE WRITING 1: SCI (RSDA 6086)

RDF Domain: A

Speaker: Jennifer Boyle, Writing Adviser

Credits: 1

Duration: 1.5 hours

Description: This workshop is intended to encourage you to look at your own writing habits, identify strategies that work for you, and think more generally about academic writing. The session will cover topics such as:

- Assessing your writing practice.
- Process and product writing.
- Using critical reading to inform your writing style.

Title: ACADEMIC WRITING: EFFECTIVE WRITING 2: SCI (RSDA 6087)

RDF Domain: A

Speaker: Jennifer Boyle, Writing Adviser

Credits: 1

Duration: 1.5 hours

Description: This workshop is intended to give you an overview of the grammar skills you will need to produce concise, coherent writing. The session will cover topics such as:

- A general overview of punctuation.
- Most common errors in academic writing.
- How to effectively use sentence structure to convey meaning.
- Proofreading and editing.

Title: ACADEMIC WRITING: ESTABLISHING A WRITING PRACTICE (RSDA 6082)

RDF Domain: A

Speaker: Jennifer Boyle, Writing Adviser

Credits: 1

Duration: 1.5 hours

Description: This workshop is intended to allow you to reflect on your writing habits and offer strategies to help you establish a productive writing practice. The session will cover topics such as:

- What level of writing is expected of you.
- How to structure your writing time.
- How to become more comfortable in your writing.
- How to get the most out of supervisory meetings.

Title: ACADEMIC WRITING: LITERATURE CRITIQUES/REVIEWS: SCI (RSDA 6083)

RDF Domain: A

Speaker: Jennifer Boyle, Writing Adviser

Credits: 1

Duration: 1.5 hours

Description: The workshop is intended to give you an understanding of the purpose of the literature review, and tips and techniques on how to manage the writing of the review. The session will cover topics such as:

- What role the literature review plays.
- The relationship between your work and existing research.
- Different structural approaches.
- How to talk about other people's work.
- Using the literature review to hone your thinking.

Title: ACADEMIC WRITING: STRUCTURING YOUR DISSERTATION: SCI (RSDA 6085)

RDF Domain: A

Speaker: Jennifer Boyle, Writing Adviser

Credits: 1

Duration: 1.5 hours

Description: This workshop is intended to give you a range of tools to deal with the structuring of your dissertation. The session will cover topics such as:

- Thinking about chapter structure
- Paragraph building methods
- Editing and proofreading techniques for coherence and concision

Title:	ACADEMIC WRITING: WRITING FOR PUBLICATION SCI (RSDA 6088)
RDF Domain:	A
Speaker:	Jennifer Boyle, Writing Adviser
Credits:	1
Duration:	1.5 hours
Description:	<p>This workshop is intended to provide you with a general overview of writing for publication. The session will cover topics such as:</p> <ul style="list-style-type: none"> • The publication process. • Types of journal articles. • Making time for writing for publications. • Dealing with feedback.

Title:	C/C++ (RSDA 6069P)
RDF Domain:	A
Speaker:	John Hamer, IT Consultant
Credits:	2
Duration:	14 hours (7 weeks x 2 hours)
Description:	<p>The course will offer an introduction to the basics of the C/C++ programming language and will encompass the following topics: (i) program structure; (ii) basic syntax; (iii) functions; (iv) memory management; and (v) objects. The course is intended for students with little or no programming experience. Along with the taught element there will be programming tasks to be completed at each session. By the end of the course, the student should have the ability to develop practical engineering code.</p> <p>The course is primarily intended for those with no working knowledge of C or C++, however those with some programming experience are more than welcome. Numerical methodologies will not be covered directly in this course and will only be presented on a needs basis to illustrate programming constructs.</p>

Title: INFORMATION RESOURCES AND SEARCH SKILLS: CURRENT AWARENESS AND REFERENCE MANAGEMENT (RSDA 6035)

RDF Domain: A

Speaker: College Librarian

Credits: 1

Duration: 2 hours

Description: The session will offer hands-on opportunities to practise the skills you will develop including utilising journal contents alerts, saved searches on different databases, monitoring of news releases and commentary from other research groups. Both e-mail and RSS feeds will be discussed as delivery mechanisms along with the impact of social media and open access. Reference capture and management and citation methodology plus its relationship to plagiarism are also covered.

Title: PYTHON (RSDC 6028)

RDF Domain: A

Speaker: Douglas MacDonald

Credits: 2

Duration: 2 days

Description: Python is an intuitive yet powerful programming language. It is both a “procedural” and “object-oriented” – concepts you will be introduced to. The course is designed for beginners with no Python experience, however, as you work at your own pace it is possible for others to attend. We cover data types, variables, expressions and statements, control flow, functions, looping, iteration, strings, lists, tuples, dictionaries, files and, classes and objects. You will be able to create basic console programs structured in a logical fashion. The course will be based on Python 3 and the Anaconda distribution (we can support Python 2.7). Please note that if you already have Python installed, you can use your own computer.

Title: **STATISTICAL THINKING, AN INTRODUCTION**

RDF Domain: A

Speaker: School of Mathematics and Statistics

Credits: 1-3

Duration: 3 - 15 hours (5 modules over 5 days)

Description: This training consists of 5 independent modules, each worth 1 credit. They are designed to introduce the following statistical concepts:

Module 1: Introduction to Data Visualisation (RSDA 6106)
Module 2: Introduction to Statistical Programming in R (RSDA 6105)
Module 3: Introduction to Statistical Inference (RSDA 6107)
Module 4: Introduction to Statistical Modelling (RSDA 6108)
Module 5: Introduction to Design and Analysis of Experiments (RSDA 6109)

Guidelines will be provided of prerequisite knowledge and/or recommended reading prior to each module.

Students are welcome to attend as many modules as they like, although the total credits that can be gained is capped at 3 credits in order to encourage training participation in other areas.

OTHER COURSES – RDF DOMAIN B PERSONAL EFFECTIVENESS

Title:	CAREERS WORKSHOP: REVIEWING YOUR CAREER (RSDB 6013)
RDF Domain:	B
Speaker:	Katrina Gardner, Careers Service
Credits:	1
Duration:	2.5 hours
Description:	This workshop will be useful to you if you are actively considering your career options including those of you who are thinking of moving out of academia. It will help you to have greater awareness of your transferable skills, to reflect on what is important to you as you develop your career, to present yourself more positively when applying for jobs and to be aware of the resources available to support you.

Title:	CAREERS WORKSHOP: JOB SEEKING STRATEGIES AND EFFECTIVE APPLICATIONS (RSDB 6014)
RDF Domain:	B
Speaker:	Katrina Gardner, Careers Service
Credits:	1
Duration:	2.5 hours
Description:	Postgraduate study develops a huge range of skills and experience which are valued by employers across every sector. Getting the right message across to a potential employer on paper is key to being shortlisted for interview. This session looks at making sure you market yourself effectively, through CVs, Covering letters and application forms. It will also look at how to find opportunities in the labour market, including vacancies and more direct approaches to employers.

Title:	CAREERS WORKSHOP: JOB INTERVIEW TECHNIQUES (RSDB 6016)
RDF Domain:	B
Speaker:	Katrina Gardner, Careers Service
Credits:	1
Duration:	2.5 hours
Description:	Interviews can be a very daunting experiences and it is natural to feel anxious. Doing as much preparation as possible can help you cope with interview nerves and make you aware of your strengths as well as your weaknesses. This session will help you to identify what recruiters are looking for and prepare you to tackle those awkward questions.

Title:	CAREERS WORKSHOP: MOCK INTERVIEWS
RDF Domain:	B
Speaker:	Company representatives
Credits:	1
Duration:	2 hours
Description:	This workshop is being run for students keen to move outside of academia after their PhD to gain some first-hand interview practice with employers in a number of career sectors popular with Science and Engineering students. The workshop will give you an insight into job interviews, help you develop your self-promotion skills and also provide an opportunity to meet and network with employers. Application is by submission of your CV.

Title:	DEVELOPING A PRODUCTIVE AND EFFECTIVE RELATIONSHIP WITH YOUR SUPERVISOR (RSDB 6065)
RDF Domain:	B
Speaker:	Suzanne Parry
Credits:	1
Duration:	3 hours
Description:	<p>The critical relationship during a PhD is that between research student and supervisor. Although each PhD is unique and the demands of individual projects will determine the nature of the relationship to some extent, this session will look at the likely roles and responsibilities of supervisor and student.</p> <p>We will discuss:</p> <ul style="list-style-type: none"> • The research cycle and the changing demands on students as the PhD progresses • The Code of Practice for Research Students, so you are aware of the responsibilities of supervisor, department and institution • Managing more than one supervisor • Good practice for developing a professional relationship. <p>Although aimed at students who are close to the start of their research, later stage students are welcome if they wish to gain insights into managing their supervisor relationship more effectively.</p>

Title: THE CREATIVE SCIENTIST (RSDB 6081)

RDF Domain: B

Speaker: Skillfluence

Credits: 1

Duration: 6 hours

Description: This one day workshop is all about creative innovation; how to recognise possibilities and think with a strategic and creative mind-set. Learn how to think big, spot new research possibilities, solve tricky problems and generate ideas. We introduce innovation habits into the way you work by looking at some core creativity techniques and then moving to apply them to provide practical solutions. Find out about the basic principles, methods and mindsets and how to apply them to the way you approach your scientific research.

The group will explore an 'Idea Toolkit' looking at innovation processes, sharing how these can be understood, developed and used to solve problems and express ideas.

What the course will cover/learning outcomes:

- Inspiration and creativity
- The creative process
- Creativity: generating ideas
- Creative thinking tools and techniques: Idea Toolkit
- Innovation: translating ideas, developing concepts
- Applying the learning to your situation

This is a fast paced, intellectually stimulating and highly interactive workshop to bring creativity to the forefront for research scientists. Participants will gain key insights on innovation and creative thinking, increase their creative confidence, and take away a toolkit of approaches applicable to a variety of problems and projects. Participants will be inspired through examples, discussion, activities and equipped with a range of tools and techniques to apply creativity to their work and generate mechanisms to boost innovation in the lab.

Title: EFFECTIVE TIME MANAGEMENT (RSDB 6056)

RDF Domain: B

Speaker: Chris Russell

Credits: 1

Duration: 3 hours

Description: Ever wondered where all the time goes? Or why there just aren't enough hours in the day? This course will help you make the most of your time, find the perfect work/life balance and make sure you get things done. We will explore prioritisation techniques, how to avoid procrastination and how to plan the perfect day. So if you have the pressure of a looming deadline, or you are juggling too many balls, come along and learn how to put things in order, how to produce without the panic and what to do with all the time you will save!

Title: **EMERGENCY FIRST AID (RSDB 6012)**

RDF Domain: B

Speaker: Stewart First Aid Training

Credits: 1

Duration: 1 day

Description: This course, by trainers from the University's accredited first aid training provider, Stewart First Aid Training, will deal with the essentials of emergency first aid.

Title: **FIELDWORK SAFETY (RSDB 6011) (COMPULSORY FOR THOSE UNDERTAKING FIELDWORK IN GEOGRAPHICAL AND EARTH SCIENCES)**

RDF Domain: B

Speaker: British Association of Ski Patrollers (BASP)

Credits: 2

Duration: 2 days

Description: The 2 days are interspersed with indoor and outdoor practical sessions, including dealing with an unconscious casualty, wounds and bleeding, common medical emergencies, shock, fractures and other trauma often found in the outdoor environment.

This course requires a certain amount of physical activity. You will be required to demonstrate CPR techniques from the floor in a group environment. Each candidate **MUST** bring suitable footwear (flat shoes) and clothing including any kit they normally wear for outdoor scenarios. They may also need old waterproof clothing as they will be lying on the ground.

Students must email scieng-gradschool@glasgow.ac.uk to reserve a space on this course.

Title:	GRAD ON THE ISLAND (RSDB 6006)
RDF Domain:	B
Speaker:	Various
Credits:	2
Duration:	4 Days (residential)
Description:	<p>This course takes postgraduate researchers into a new environment. Based in a remote corner of the Isle of Mull, it gives you the chance to take a step back from your PhD to consider your own skills, strengths, motivations and career aspirations. Over the four days, you will take part in group activities, find space for new ideas and time to soak up the atmosphere of the island, while keeping an eye out for sea-eagles and dolphins.</p> <p>Themes of the programme:</p> <ul style="list-style-type: none"> • Personal and career development collaboration and partnership working. • Engaging the community with your research. • Creative thinking. <p>Based in old quarrymen's cottages in a remote bay, 20 minutes' walk from the nearest road, the accommodation is basic and you will be sharing a room with other participants (single sex dorms). We think this is part of what makes the trip unique and the time spent in an unfamiliar environment, away from ordinary routines, will give you space for fresh thinking on your PhD, yourself and your career. Attendance is free: we will cover all costs of your accommodation, food and transport. The event also provides some voluntary outdoor activities, including kayaking and rock-climbing / abseiling with fully-trained instructors.</p>

Title:	LABVIEW (RSDB 6050)
RDF Domain:	B
Speaker:	National Instruments
Credits:	1
Duration:	1 day
Description:	<p>This training will advise on the use of LabVIEW; software which is ideal for any measurement or control system, and the heart of the National Instrument design platform.</p> <p>Integrating all the tools that engineers and scientists need to build a wide range of applications in dramatically less time, LabVIEW is a development environment for problem solving, accelerated productivity, and continual innovation.</p>

Title:	LATEX (RSDB 6054P)
RDF Domain:	B
Speaker:	John Hamer, IT Consultant
Credits:	1
Duration:	1 day
Description:	An introduction to the LaTeX typesetting system, covering: setting up LaTeX, the document structure, typesetting text and mathematical formulae, making tables, inserting images, and managing a bibliography with BibTeX.

Title:	OUR WORD: CREATING A DISSERTATION OR THESIS
RDF Domain:	B
Speaker:	Blair Thompson, IT Services
Credits:	1
Duration:	2 x half days
Description:	Writing a complex document such as a thesis or dissertation can be a challenging task, both in producing the content and in ensuring that your document is formatted, referenced and numbered correctly. Microsoft word provides many features that will automate the latter and IT services offer training courses that can help you make the most of these tools to create your thesis in the most efficient manner.

Our Word: Creating a Dissertation or Thesis course is delivered over two half-days and takes you through the steps required to produce a high quality document with minimal effort. You will learn to:

- Create and use templates, styles and AutoText.
- Create and edit footnotes, page headers and footers.
- Insert and manipulate graphics.
- Use captions on tables and figures.
- Combine all chapters into one document.
- Create a table of contents/figures.
- Create a suitable version of a thesis for electronic deposit.

In addition, at IT services we also deliver an Introduction to Endnote course throughout the year. During the half-day course, attendees will learn how to use Endnote to manage and cite their references. The course will focus on the creation, import and management of references and the use of Cite While You Write in Word. You will learn to:

- Create an EndNote Library
- Add references manually
- Import references from online databases and Reference Manager Databases.
- Manage your references – checking for duplicates and creating groups.
- Cite your references – using Cite While You Write in Word and changing citation styles.

PGR students can also access all other ITS training courses. To see the full range of courses and to book visit glasgow.ac.uk/it/training

Title: **POSTGRADUATE LEADERSHIP PROGRAMME (RSDB 6001)**

RDF Domain: B

Speaker: Elizabeth Adams, Robin Henderson (MY Consultants) and guest lecturers

Credits: 2

Duration: 4 days + assessment

Description: Although you might not feel you are in a position of a leader at present, you may be using leadership skills as part of your role as a researcher. This could mean mentoring others or managing relationships and projects with collaborators, sponsors or your supervisor. Many of you will also aspire to be leaders in your future career and will be seeking to understand how to motivate and inspire others, confront difficult problems, ask the right questions and come up with creative solutions.

Throughout the Postgraduate Leadership Programme, you will hear from experienced tutors and speakers from a range of backgrounds on what they think it takes to be a successful leader and influence others towards a common goal or purpose. A key part of the programme is the consideration of your natural strengths and weaknesses, personal values and the style of leadership that suits you best. You will also work with other researchers on a relevant project to put some of the ideas from the workshops into practice. Successful completion of the programme assessment will enable participants to gain accreditation from the Chartered Management Institute.

You must be available to attend all four sessions, plus a short induction, as well as participating in the group project (involving 2-3hr work between sessions). We recognise this is a large time commitment and therefore it should be discussed with your supervisor. You will also be asked to provide an email from your supervisor, confirming that you have discussed your plans to attend this course.

OTHER COURSES – RDF DOMAIN C RESEARCH GOVERNANCE AND ORGANISATION

Title:	PROJECT MANAGEMENT – AN INTRODUCTION (RSDC 6001)
RDF Domain:	C
Speaker:	Robin Henderson, My Consultants
Credits:	1
Duration:	1 day
Description:	<p>This one-day course provides a basic introduction to project management techniques that will help you with the following aspects when planning your PhD:</p> <ul style="list-style-type: none">• Developing a clear and detailed scope for your research project.• Managing yourself and your time.• Monitoring progress and managing risks in your PhD.• Managing interaction with your supervisor and other project partners. <p>Please do not attend both the one-day course and the two-day course.</p>

Title:	PROJECT MANAGEMENT – YOUR PHD AND BEYOND (RSDC 6002)
RDF Domain:	C
Speaker:	Robin Henderson, MY Consultants
Credits:	2
Duration:	2 days
Description:	<p>Project Management is a great skill to have whether you are planning to stay in academic research or pursue a different career. This two-day workshop explores how organisations manage projects including how they:</p> <ul style="list-style-type: none">• Define success for a project.• Develop clear and detailed scopes for projects.• Manage the interactions with the stakeholders of the projects.• Set up management structures to ensure that the project team works well together.• Develop time-lines for complex projects which involve many staff and contractors.• Build robust budgets for projects and then manage against these budgets.• Manage uncertainty in the project process.• Monitor progress of the project.• Evaluate project success at the end of the project. <p>This workshop will guide you through these processes using a case study and group work to practice the tools and methods which are introduced. It will also give you the opportunity to consider how you can apply these skills to your current research and present the skills which you have developed on your PhD for jobs which require project management skills. Participants must be able to attend both days. This course covers the same material as in the one-day course but in greater depth. Please do not attend both the one-day course and the two-day course. Course participants have the option to be accredited through the Chartered Management Institute on successful completion of a short reflective assessment.</p>

Title:	POST DAY – SCIENCE POLICY (RSDC 6032)
RDF Domain:	C
Speaker:	Research Data Management Service
Credits:	1
Duration:	1 day
Description:	<p>This day-long event focuses on the ways in which researchers from any field of study can engage government with their research and inform policy. There will also be information and advice on the opportunities and internships available to doctoral and early career researchers to work more closely with the UK government.</p> <p>The day is led by a representative from the Parliamentary Office of Science and Technology (POST), and will feature presentations from previous POST interns, the careers advisor for researchers, and senior academic staff. In the afternoon, participants will have the chance to draw up and receive feedback on POSTnotes: briefings providing MPs and Peers with accessible, balanced and independent analysis of public policy issues.</p>

Title:	THE VIVA (RSDC 6010)
RDF Domain:	C
Speaker:	Professor Deborah Dixon
Credits:	1
Duration:	2 hours
Description:	<p>This training is designed for students who intend to submit within the next six months and will include discussion on the structure of the viva and the type of questions which are likely to be asked. The role of the convener and the internal and external examiners will also be explained.</p>

Title:	WRITING A DATA MANAGEMENT PLAN WITH DMPONLINE (RSDC 6030)
RDF Domain:	C
Speaker:	Research Data Management Service
Credits:	1
Duration:	1.5 hours
Description:	<p>The University and most funding bodies now require postgraduate researchers who collect data of some sort as part of their work to write a Data Management Plan (DMP). Plans typically state what data will be created and how, and outline the plans for sharing and preservation, noting what is appropriate given the nature of the data and any restrictions that may need to be applied. We recommend that researchers use DMPonline, a flexible web-based tool, to create DMPs. The course will provide guidance on using DMPonline and an introduction to data management planning. After an introduction, researchers will have an opportunity to draft a DMP with support from instructors.</p> <p>This course is intended for researchers who are at a stage of their projects where they are ready to produce a Data Management Plan. It is recommended that researchers first attend the general Research Data Management course (RSDC 6025).</p>

OTHER COURSES – RDF DOMAIN D ENGAGEMENT, INFLUENCE AND IMPACT

Title:	ANIMATING YOUR RESEARCH (RSDD 6062)
RDF Domain:	D
Speaker:	Mhairi Towler, Vivomotion
Credits:	1
Duration:	1 day
Description:	<p>This workshop will include the following topics – script writing, voiceover production, film production, storyboarding and animation production, followed by a software demonstration. Applications for the use of such a film/animation will be highlighted through case studies.</p> <p>By the end of the workshop participants will:</p> <ol style="list-style-type: none">1. Have written and recorded a script describing their own research topic.2. Recorded a film of themselves delivering script.3. Have sketched out a storyboard.4. Know how to proceed to complete production of their animation using Sparkol Videoscribe software. <p>Pre-session work: Participants should have given some thought to how they would like to tell the story of their research, keeping in mind what audience they are trying to target. They should also have thought about what visuals can be used to illustrate their research topic.</p>

Title:	BLOGGING FOR CONNECTION AND COMMUNITY (RSDD 6074)
RDF Domain:	D
Speaker:	TBC
Credits:	1
Duration:	2 hours
Description:	<p>Come to this workshop to learn how to create written content to share your research, increase your visibility as a researcher, and create and nurture online communities.</p>

Title:	BUSINESS BEYOND THE BOTTOM LINE (RSDD 6032)
RDF Domain:	D
Speaker:	Various
Credits:	1
Duration:	1 day
Description:	<p>This course looks at business and enterprise from an alternative angle and is intended for people who want to examine making a living that is aligned with their personal motivations. We're not focusing on the pinstripe suit or Dragon's Den side of running a business but want to explore the distinctive nature of social enterprise, as well as the challenges and benefits of running a business that is based on your own personal values.</p>

- Hear from guest speakers about their own journeys to setting up companies.
- Develop a greater understanding of your personal values and sense of direction and how these might fit with running a business.
- Learn about core business functions, including finance and funding, strategy and getting the right team.
- Practice problem solving, creative thinking, collaborative working and influencing skills.
- Consider how your skills, creativity and self-reliance can translate into future opportunities - whether in your career or more widely.

This course is for researchers from any subject area, with an interest in values-based business with environmental or societal benefits. If you are working in a technology-based area and looking to design an actual product you may find the course 'Research Ventures' is more suited to you. Much of the content of these two courses is similar but the approach is from a different angle, with speakers and case studies chosen accordingly.

Title:	COMMUNICATING CLEARLY WITH DIVERSE AUDIENCES (RSDD 6073)
RDF Domain:	D
Speaker:	TBC
Credits:	1
Duration:	2 hours
Description:	<p>This workshop will investigate ways to tailor your message to the particular needs of a variety of different audiences, enabling more effective communication.</p>

Title:	DIGITAL CONTENT CREATION FOR USE ON SOCIAL MEDIA (RSDD 6066)
RDF Domain:	D
Speaker:	Glasgow Science Festival
Credits:	1
Duration:	2 hours
Description:	<p>Participants are invited to join the Glasgow Science Festival team to learn the basics of creating your own digital content. We will explore images, podcasts and videos, and how to use these to expand your reach to a wide audience. Learn why video content represents over 70% of internet traffic, and have a go at creating your own short, engaging, shareable piece of film.</p> <p>The GSF team will guide you through the process of storyboarding, filming and editing a short video, giving you the skills and knowledge to replicate this later using basic tools such as a smart phone and free editing software.</p>

Title:	GRADFLICKS CHALLENGE (RSDD 6067)
RDF Domain:	D
Speaker:	TBC
Credits:	2
Duration:	1.5 days + evening screening
Description:	<p>Do you want to gain first-hand experience of creating a short film? Fancy yourself in the director's chair, or want to see your name in lights some day? The GradFlicks Challenge will see four teams race against the clock to make their own engaging short film for the big screen. Working over the course of two days, each team will create a short video around a brief given at the start of the event. The GradFlicks Challenge will culminate in a movie 'premiere' where friends, colleagues and the public will be invited to a showcase of the work created, with an awards ceremony and £100 prizes for each member of the team with the best film. Teams will also have the opportunity to upload their films to YouTube.</p>

Title:	INFOGRAPHICS/DATA VISUALISATION (RSDD 6048)
RDF Domain:	D
Speaker:	Mhairi Towler, Vivomotion
Credits:	1
Duration:	3 hours
Description:	<p>Data Visualisation is a huge field and many researchers don't know where to begin to find new ways to present their results.</p> <p>By the end of this workshop, you should be able to:</p> <ul style="list-style-type: none"> • Access several online tools available for data visualisation. • Design novel infographics for your research topics. <p>The workshop will serve as an introduction to the vast field of data visualisation. Highlighting online tools, you will learn how to tell stories with your data. Examples of unique data visualisation projects will be shown for inspiration. Designing communications that appeal on an aesthetic level is important no matter what discipline you work in.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • The importance of good visual storytelling. • Designing and presenting graphs and charts to maximise their impact. • Examples of good practice. <p>Please note that although different visualisation software options are discussed, this is not a software training course.</p>

Title:	INSPIRE AND CHALLENGE (RSDD 6070)
RDF Domain:	D
Speaker:	Glasgow Science Centre
Credits:	2
Duration:	2 days (second day a Saturday or Sunday)
Description:	<p>Open to researchers in all disciplines and colleges, the Inspire and Challenge training course provides doctoral researchers with the tools and techniques to engage diverse audiences with their research. Delegates will explore the key elements of theory and practice that are essential for excellent public engagement, including a variety of tried and tested strategies. By the end of this two-day course delegates will:</p> <ul style="list-style-type: none"> • Be able to employ modern theories of learning to engage learners. • Be able to structure a hands-on activity relevant to learners of all ages and abilities. • Have experience of engaging a public audience with a hands-on activity relating to their research. <p>The course is hosted by the Glasgow Science Centre; lunch is provided on both days.</p>

Title:	INTRODUCTION TO PUBLIC ENGAGEMENT (RSDD 6012)
RDF Domain:	D
Speaker:	Glasgow Science Festival
Credits:	1
Duration:	3 hours
Description:	<p>In this introduction to public engagement, you will learn about the difference between communicating to professional audiences and the non-specialist public.</p> <p>We will give you examples from our own high profile public engagement activities. Then you will have the opportunity to try your hand at distilling a piece of scientific research into something that is appealing to a non-specialist audience. Working in small teams, you will choose a topic you could potentially present together, identify a target audience, and then develop a tagline and a logo.</p> <p>By the end of the session you will have understood the need to adjust your communication style to suit your target audience and gained some practical experience of the process of converting specialist material into an engaging form.</p>

Title:	INTRODUCTION TO SOCIAL MEDIA (RSDD 6078)
RDF Domain:	D
Speaker:	Glasgow Science Festival
Credits:	1
Duration:	2 hours
Description:	<p>Participants are invited to join Glasgow Science Festival for this interactive session and discover the power of social media for communicating research and engaging with the public online. This course is aimed at those new to or unsure how to best utilise social media.</p> <p>You will learn the basics of Facebook, Twitter and Instagram. How do social media channels differ in their functionality and demographics? What makes a 'good' or 'bad' update? What are the measures of success? What are the do's and don'ts? We will explore the ways that social media be used to support your research goals, for public engagement and for effective event promotion.</p>

Title: ORAL ENGLISH (RSDD 6044P)

RDF Domain: D

Speaker: School of Modern Languages and Cultures

Credits: 1

Duration: 12 hours (6 weeks x 2 hours)

Description: This English class is for non-native speakers who can already communicate successfully in English, but are interested in moving beyond just being “understandable”. It will look at five key points:

Pronunciation – Working with the sounds, stresses and accents of English, this part of the class will focus on important sounds and distinctions in spoken English, and look at how to use stress and tone to make your English more engaging and easier to understand. It will also look at Scottish accents, with an aim to understand the people of Glasgow a bit more easily!

Grammar – This section of the class will look at simple rules and structures that you can use to make sure you say exactly what you mean to say. It will highlight common mistakes and misunderstandings and show you how to fix them.

Vocabulary – A selection of commonly used words and phrases which native speakers will use frequently but which might not be as common in non-native English. This should help with both expressing yourself and understanding others.

Day to Day Situations – Going for a haircut, asking for directions, buying clothes - learn what people actually say and what will be said to you in these situations. This is very interactive, so you can learn how to ask for all those things that you've just been doing without until now!

Scots Word of the Week – If you want to have a “wee blether” (a small chat) with someone from Scotland, there's a chance you'll hear one or two of these words. Put an individual stamp on your English or learn what words NOT to say outside of Scotland - also very useful for understanding Glasgow taxi drivers.

The class is very informal and questions and chat are encouraged, and the class will often stray far from the original topics, but English is learned regardless.

Title: PACING AND PRODUCTIVITY – HOW TO KEEP UP THE MOMENTUM WITH YOUR WRITING (RSDD 6083)

RDF Domain: D

Speaker: TBC

Credits: 1

Duration: 2 hours

Description: Do you struggle with writer's block? Do you experience unproductive periods due to lack of motivation or inspiration? This workshop will explore strategies for maintaining your productivity without burning out.

Title: PRESENTING FOR SUCCESS (RSDD 6075)

RDF Domain: D

Speaker: STET

Credits: 2

Duration: 4 x half day + presentation / feedback session + assessment

Description: Good presentation and communication skills are important not just in academia and teaching, but in many careers and even daily life. Delivering presentations can be challenging, but the best presentations can be transformative experiences for both speaker and audience. The aim of this programme is to equip you with the knowledge, skills, and even voice control to plan and give presentations that engage and inspire an audience.

Through physical and practical exercises, participants will learn about the role of the presenter, how to engage an audience, the different presentation scenarios encountered in academia, how to plan and structure a presentation, and how to control nerves, posture, and voice. There will be dedicated one-on-one feedback sessions and a final friendly presentation exercise. Successful completion of the programme will enable participants to gain accreditation from the Chartered Management Institute.

You must be available to attend all four sessions, plus a tutorial and the final presentation / feedback session. You will also be expected to do some homework and practice exercises between sessions (involving 2-3 hrs work between each). We recognise this is a large time commitment and therefore it should be discussed with your supervisor. You will also be asked to provide an email from your supervisor, confirming that you have discussed your plans to attend this course.

Title:	PRESENTING WITH IMPACT (RSDD 6002)
RDF Domain:	D
Speaker:	Voice Business
Credits:	1
Duration:	3 hours
Description:	This half-day course is designed to help you transform your oral delivery skills and build your confidence. You will learn the secrets of techniques borrowed from the theatre and adapted to suit the presentations you need to give as a researcher. The course will enable you to become a more compelling communicator through learning strategies to control nerves and ensure that you know how to make the best use of your voice and pace your delivery.

Title:	PRESENTING YOUR RESEARCH VISUALLY (RSDD 6038)
RDF Domain:	D
Speaker:	Mhairi Towler, Vivomotion
Credits:	1
Duration:	1 day
Description:	<p>This workshop introduces researchers to the fundamentals of communicating research via visual means. Participants will leave the workshop with a foundation in what aspects should be considered when preparing their research findings for visual presentation. There will be four sessions throughout the day including:</p> <ul style="list-style-type: none"> • Poster design • Ideas for public engagement • Overview figures/graphical abstract preparation • Animation techniques <p>Sharing your research findings via a poster is commonplace during the course of postgraduate study, whether within your own department or at an International conference. This workshop is designed for individuals who wish to understand how good, basic design can enhance the quality of their poster presentations. Secondly many researchers are now expected to participate in public engagement events to share their research with a lay audience. Selecting the correct visual aids for this activity can help break down communication barriers.</p> <p>Many journals now require the submission of a graphical abstract along with submission of a manuscript. This workshop will look at how to go about designing a graphical abstract on your research findings.</p> <p>Finally, animation as a communication tool for science will be introduced.</p>

Title: PUBLIC ENGAGEMENT INTERNSHIPS (RSDD 6013)

RDF Domain: D

Speaker: Various

Credits: 3

Duration: 6 sessions + groupwork

Description: This extended training opportunity is designed for those who wish to gain public engagement skills and communicate their own research to the public at the Glasgow Science Festival in 2019.

Effective communication of highly specialised research to the general public can be challenging and the internship will help you develop your own activity.

Selected students will undertake a short internship with Glasgow Science Festival staff. The culmination will be presentation of your own research during the Glasgow Science Festival in June 2019.

The internship will entail six short sessions with festival staff and additional group work with other students. The course will run from February to June and will involve:

- Effective group working
- Techniques to support the translation of scientific terminology to age and audience
- Exploration of the different forms of public engagement activities
- Development and delivery of your own activity for the festival
- Project and budget planning

There are only 16 places available and you must be able to make a commitment to the entire course and to participating in the Glasgow Science Festival in June 2019.

It will be of advantage to applicants to have undertaken the introductory session on public engagement above.

Title:	RESEARCH VENTURES (RSDD 6006)
RDF Domain:	D
Speaker:	Various
Credits:	2
Duration:	2 days

Description: This two-day course is aimed at researchers with an interest in:

- Knowledge exchange, research impact and winning funding for academic career progression.
- Exploring the commercial possibilities of a research idea and how your research might attract industrial funding or be used in setting up a spin-out company.
- Future employment in industry.
- Collaboration with researchers from other disciplines.

The course is a mixture of practical activities and case studies. It includes talks from experts and entrepreneurs with inspiring stories and first-hand experience of bringing exciting ideas to life.

Our speakers will share their knowledge of:

- Creative thinking and what being enterprising means to them.
- Business planning and different models of research commercialisation (including spin-outs and licensing).
- Protecting your ideas and intellectual property.
- Compelling and convincing communication that helps you to bring others on board and win funding.
- How to inspire and motivate others, whether you see yourself as working in business or building a research group.
- Sources of support, advice and funding and how to deal with set-backs.
- How to develop a network.

Title:	RISKY BUSINESS (RSDD 6001)
RDF Domain:	D
Speaker:	Catenion
Credits:	1
Duration:	Half day
Description:	Sharpen your commercial awareness and learn about risk taking and strategic thinking through an interactive board game which sees you taking on the role of a pharmaceutical executive team. Pharma companies make some of the biggest gambles of any industry: multimillion, even multibillion, dollar investments on a new drug. These investments can take more than a decade to play out. Scientific and technical barriers produce a high failure rate: Only one in ten new Phase I drugs make it to the market.

This workshop gives researchers the chance to:

- Gain an insight into R&D and business development processes.
- Experience the highs and lows of working in a team to negotiate deals and licensing agreements.
- Consider how projects and deals can be evaluated against industry benchmarks and how this information can form part of the strategic planning process.
- Postgraduate researchers and postdocs from all levels are welcome. It is likely to be most relevant to researchers in scientific, medical, business or legal disciplines.

Title:	SHOWCASING YOUR RESEARCH ON THE WEB (RSDD 6035)
RDF Domain:	D
Speaker:	John Hamer, IT Consultant
Credits:	1
Duration:	2 hours
Description:	In this workshop you will learn how to create a web page to showcase your research. We will cover basic HTML elements (headings, lists, tables, etc.), embedding images, linking to other resources, fine-tuning layout with CSS, and displaying data in charts.

Title:	THREE MINUTE THESIS (3MT) COMPETITION (RSDD 6017)
RDF Domain:	D
Speaker:	Various
Credits:	1 for attendees/2 for participants
Duration:	Heats and final
Description:	<p>The 3 Minute Thesis is a friendly academic competition that enables participants to hone their communication and presentation skills, receive specialist coaching, and have the chance to win a £1000 travel grant. Participants present their research verbally in just 3 minutes in front of one PowerPoint slide.</p> <p>Heats will take place in each of the four Colleges, with three participants from each college going forward to participate in a Grand Final. Further information on how to participate is available at the following website: glasgow.ac.uk/research/ourresearchenvironment/prs/pgrcoursesandevents/threeminutethesiscompetition/</p>

Title:	WELLBEING
RDF Domain:	B
Speaker:	TBC
Credits:	TBC
Duration:	TBC
Description:	<p>Find out more about Mindfulness and other courses designed to improve your wellbeing at: glasgow.ac.uk/myglasgow/counselling/support/courses</p> <p>Join the PGR Walking Group, every Tuesday lunchtime at 12:30 outside the Gilchrist Café. How about a spot of gardening to soothe the soul? Or would a workshop on Managing Stress, the PhD and Sleep, Mental Health First Aid, or Overcoming Perfectionism help? Find out more: glasgow.ac.uk/services/postgraduateresearch/pgrwellbeing</p>

Title: **WORKING TOWARDS RESEARCH IMPACT (RSDD 6071)**

RDF Domain: D

Speaker: TBC

Credits: 1

Duration: 2 hours

Description: In today's evolving research environment, research impact has become a significant part of academia. Understanding how your research potentially affects or benefits wider society (what we call 'impact') can be helpful in shaping your research. Working towards the potential impacts arising from your research can help you build new transferrable skills and strengthen your academic career. This workshop introduces the concept of research impact and provides frameworks for designing an impact plan. It is suitable for PhD researchers who are at least 6 months into their programme.

EXAMPLE TRAINING PROGRAMME *

Year 1

Effective writing I (1)
Postgraduate leadership programme (2)
Introduction to the General Data Protection Regulation (GDPR) (1)
Information resources and search skills (1)
Public engagement – an introduction (1)
Research Integrity (1)
Data Management (1)
Equality and Diversity Training (1)

Total – 9 credits

Year 2

Effective writing 2 (1)
Language training (1)
Working Towards Research Impact (1)
Public engagement internships (3)
POST Day (1)
Digital Content Creation for use on Social Media (1)

Total – 8 credits

Year 3

Structuring your Dissertation (1)
The viva (1)
Risky business (1)
Job seeking strategies (1)
Research Ventures (1)
Project management (1)

Total – 6 credits

* Please note that these selections are provided as examples of how to engage in the overall programme and that courses are not restricted to year of study.





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