RESEARCH TRAINING PROGRAMME AND PERSONAL DEVELOPMENT PLANNING
FOR POSTGRADUATE AND POSTDOCTORAL RESEARCHERS
2019-2020
Course Index continued

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Welcome

Welcome to the 2019-2020 edition of the Research Training Programme brochure. Training in research skills is a key element in the development of all postgraduate research students and postdoctoral researchers. It is becoming widely recognised that future employers, in a wide range of sectors, expect staff to possess a range of generic and transferable skills. To help you develop these skills, we require you to work with your supervisors to identify courses for you to attend and to participate in other skills training as part of your personal development.

College of Medical, Veterinary and Life Sciences Graduate School

The Graduate School is committed to providing high-quality training to help you develop as a researcher. In addition to the training in specific research techniques you will receive as part of your own project, the Graduate School provides and supports training in a wide range of transferable skills. In the research training programme we aim to provide training in specialist knowledge and skills which will enhance your personal and professional development. We welcome your suggestions for possible additions to the programme.

Every new postgraduate research student must attend the induction course held at the beginning of the academic year – see page 9 for details. These sessions are repeated for students who begin later in the academic year and details of these will be published on the Graduate School’s website at: /www.gla.ac.uk/colleges/mvls/graduateschool/newstudentinformation/

At the start of their studies postgraduate research students should discuss with their supervisor what skills they need to develop during the first year and beyond. You should self-evaluate your training needs using a training needs assessment (TNA) (page 38) and in consultation with the vitae researcher development document. You should meet with your supervisor prior to the end of month 2 to review the completed training needs assessment self-evaluation form, agree a plan for training provision and complete the researcher development log.

We would encourage you to consult this brochure and the Graduate School website regularly to ensure you take advantage of the range of training opportunities that are on offer. Additional training opportunities may be added over the forthcoming year and you should receive email alerts in advance. Postgraduate research students are advised to discuss their skills acquisition and future training needs with their supervisor on a regular basis and to amend and update their personal development plan. A record of the courses attended and the skills training activities undertaken should be recorded in the researcher development log at the end of this brochure.

Postgraduate research students will be required to submit their researcher development log as part of the Progress Review and it will be reviewed by the student’s review panel and postgraduate convener. /www.gla.ac.uk/colleges/mvls/graduateschool/currentpgrstudentinformation/
Researcher Development Framework

The Research Training Programme is based on the requirements set out in the Researcher Development Framework (RDF) Councils’ Joint Skills Statement key reference for the development of researchers’ skills and attributes. The RDF is a national document which sets out the knowledge, behaviours and attributes of effective and highly skilled researchers as they progress through their career. It is structured into four domains, which encompass what researchers need to know to do research, how to be effective in their approach, when working with others, and in contributing to the wider environment. Within each of the domains are three sub-domains and associated descriptors, which describe different aspects of being a researcher.

Courses available in the Research Training Programme are mapped against the RDF with a descriptor number next to each course. You are encouraged to use the RDF to plan your professional development and to update your researcher development log.

It is recommended by the research councils that postgraduate research students take part in the equivalent of 10 days of transferable skills training each year. However, this does not mean that you have to attend 10 days’ worth of formal courses. A wide range of activities can count towards your skills training and examples of such opportunities are listed within this brochure. You should discuss with your supervisor which RDF skills domain these fit into. The complete version of the RDF, with a full description of what each domain covers, can be found on the Vitae website www.vitae.ac.uk/rdf and Appendix 1 of this brochure contains an abridged version.

Details depend on the type of research in which you are involved, e.g. a series of lab based experiments, clinical trials, one major piece of field work - but the basics are the same. The process means moving from defining your field of study, through problem formulation, detailed thesis proposal/protocol including methodology, data collection, data analysis to the final stage of writing up. You are generally discouraged from leaving all the writing up until the very end, although in the tedium of data collection it is easy to put it off. Clearly, the more you are able to do at an earlier stage, the less pressured you will be at the end - and the later you will be able to collect data. This might be important for it will typically take you 8-9 months to write your thesis.
Key Domains of the Researcher Development Framework  see previous page

(A) Knowledge and Intellectual Abilities
1. Knowledge base
2. Cognitive abilities
3. Creativity

(B) Personal Effectiveness
1. Personal qualities
2. Self-management
3. Professional and career development

(C) Research Governance and Organisation
1. Professional conduct
2. Research management
3. Finance, funding and resources

(D) Engagement, Influence and Impact
1. Working with others
2. Communication and dissemination
3. Engagement and impact

See Appendix 1, page 44, for a fuller description of the RDF domains

Course Booking for Credit Allocation

When attending courses, it is ESSENTIAL that you sign the register provided. Courses can be booked through MyCampus unless otherwise stated in the Course Description.

Search to enrol for courses using MyCampus (under Self Service - Student Centre / Enrollment / Add by Search / Course Career: PG Research). 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, RSDA6006 (remove letters and add numbers only). Select ‘Postgraduate Research’ from the drop down menu - select ‘Search’. Select your preferred course and date which will be added to ‘your choices’. Make sure that you click on the ‘my choices’ tab then select the courses from the table view and then click on ‘Enrol’ to complete enrolment on the course/workshop.

You will receive an automated email within 24 hours, confirming that you have booked a place on this course. Course venues will be entered onto MyCampus but may be subject to change between the point of booking and the date of the course. You will receive an automated reminder, on the Friday prior to the event, letting you know the venue of the course.

If this is a multi-day course, you must be available to attend all days.

For details on how to book IT Services please refer to the IT Services web page www.glasgow.ac.uk/training

Important Information - Credits

There are three ways credits will be added to your record. Please ensure you know when this will be automatic (MVLS Graduate School courses pages 9-20) and when you need to apply for them (all other courses). See next page for information.

Postgraduate Research Student Credit System

Courses listed in this brochure have a defined number of credits attached. Credits can also be attained through attending courses organised by Research & Development, IT Services and by undertaking additional training opportunities (see pages 23-40). Courses organised by the MVLS Graduate School (pages 9-20) will have credits applied once registers have been returned to the Graduate School office. All students attending must ensure that they sign the class register. All other courses - you must apply for credits.

Full time students undertaking a PhD should gain 20 credits and aim for at least 12 in the first year. All other postgraduate degrees and part-time students should gain credits pro-rata.
All Other Courses - Credits

The Skills Credit Application form should be used if you wish to have credits allocated to your skills training record for participation in training activities which do not appear in the MVLS Graduate School Training Courses ie. the programmes from pages 9 to 20 with titles in pink text. The form is located at:

www.gla.ac.uk/colleges/mvls/graduateschool/currentpgstudentinformation/skillstraining/#/creditsforotherskillstrainingopportunities

All training activities must be agreed with your supervisor. Please also consult the Researcher Development Framework (RDF) to identify in which skill domains and sub-domains the activity you wish to undertake provides training.

Applications for credits for all other courses should be submitted by email to: mvls-gradschool@glasgow.ac.uk with ‘Skills Credit Application’ in the subject line. Please note that the credit value for any course or activity is not intended to reflect the duration of the course and applications for credits for all other courses will receive one credit. You should aim to gain skills and credits across all four domains outlined in the RDF. A certificate of your attendance or other documentary evidence must accompany this application with the exception of courses commencing with code RSD. (It is permitted to submit a programme timetable, event flyer etc as proof of attendance where formal proof of registration is not available).

Credits for Courses Listed in the MVLS Graduate School Training Courses (pages 9-20)

All students attending RTP courses offered within the College Skills Training Programme at the MVLS Graduate School Courses section (pages 9-20) must ensure that they sign the class register which will be available at each RTP course. The register is returned by the course presenter to the MVLS Graduate School Office and credits are added to the MyCampus records of all students who signed the class register. Please note that the addition of credits is a manual process and may take up to a month to appear on your record.

Please provide evidence of attendance for all other courses in the brochure eg. Researcher Development Courses; Glasgow Clinical Researcher Facility; IT Services Courses; Additional Skills Training Activities; Careers Service Courses; Employee & Organisational Development Courses.

Cancellations

If you need to cancel your place, please give as much notice as possible so we can ensure your place is allocated to another student. Except in the case of illness or emergency, we require (at minimum) 48hrs notice. Failure to provide this will result in your records showing non-attendance and your institute/school/supervisor will be informed as part of the progress review and will result in one credit being deducted from your running total. You can cancel your place on a course via MyCampus. In case of illness or emergency you should register this via the ‘My Absence’ function on MyCampus. This will then be recorded as an absence on your student record.

Accessibility of Training Courses

We aim to ensure that people have equal access. If you need alternative formats or other reasonable adjustments, please contact the course organiser with your request as soon as possible so that arrangements, where possible, can be made. Due to our hilltop campus, limitations may be encountered.
Credits will be added automatically by the MVLS Graduate School Office. The MVLS Graduate School will provide class registers which you must sign for all courses within pages 9 – 20. Course presenters will return registers to the Graduate School Office.

There is no need for students to return any form of proof of attendance for these courses.
INTRODUCTORY COURSES

The MVLS Graduate School organise a compulsory Induction Course for all year 1 students during the first week of the session. The Induction Course is a full day event, with sessions provided by College staff and staff from other University services. A detailed programme is published separately on the MVLS Graduate School’s web page. The Induction Course is repeated later in the session for students who begin after the start of the academic year.

Graduate School Courses
How to Book:

All courses provided as part of the Research and Development Training Programme can be booked online via MyCampus unless otherwise stated in the course description.

1. Search to enrol for courses using MyCampus (under Self Service - Student Centre / Enrollment / 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, RSDA6006 (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 then select the courses from the table view and then click on ‘Enrol’ to complete enrolment on the course/workshop.

You will receive an automated email within 24 hours, confirming that you have booked a place on this course. Course venues will be entered onto MyCampus but may be subject to change between the point of booking and the date of the course. You will receive an automated reminder, on the Friday prior to the event, letting you know the venue of the course.

Discovering Information and Developing Rigor and Validity in Literature Searches at Doctoral Level
Course code: RSDA6096P
RDF Domain: A1.3, A1.4
Speaker: Mr Paul Cannon, University Library
Target Group: All new students (1 session for each student)
Credit: 1
Description: Doctoral candidates attending this workshop will develop techniques to quickly gain a familiarisation with their field of research and the research skills required to create a rigorous and valid literature search. Doctoral candidates will:

• Understand the various literature review styles available and the methodologies required for each
• Be able to structure a search strategy for effective literature searching
• Utilise advanced search techniques to find relevant, high quality information in their research field in a systematic way
• Will be introduced to text mining techniques to improve the precision and sensitivity of their searches
• Be introduced to citation searching and analysis to identify prominent literature and authors within their field

Attendees will be expected to participate in set exercises and discuss their findings.

How to Publish and Critically Evaluate Scientific Articles
Course code: RSDA6006
RDF Domain: A2.1, A2.2, A2.3, A2.4
Speaker: Dr Pasquale Maffia, Institute of Infection, Immunity and Inflammation
Target Group: Year 1
Credit: 2
Description: This session will discuss the publishing process of scientific articles and how to critically evaluate the quality of the scientific literature and is primarily aimed at those doing experimental, rather than clinical research.

Critical Appraisal of the Medical Literature
Course code: RSDA6115P
RDF Domain: A2.1, A2.2, A2.3, A2.4
Speaker: Mr Chris Patterson, MRC/CSO Social & Public Health Sciences Unit, IH&W
Target Group: Year 1
Credit: 2
Description: This session will provide a practical introduction to critically appraising medical literature, with a particular focus on population health research. Participants will learn to understand and apply universal and method-specific quality criteria; learn how to use different tools to perform rigorous critical appraisals of a range of different research designs.
Applied Statistics for Postgraduate Students
Course code: RSDA6002
RDF Domain: A1.1, A1.6, A2.1
Speaker: Professor Adrian Bowman, School of Mathematics and Statistics
Target Group: Year 1
Credit: 3
Description: This course may be taken by any postgraduate research student but is aimed mainly at those students in year 1. It consists of 3, three-hour sessions that build on any statistical background students have from their undergraduate courses. Students are expected to attend all 3 sessions in a block.

The 3 sessions cover Session 1: designing your experiment, what factors do you need to consider? Session 2: Introduction to statistical modelling, including linear models and Session 3: More advanced statistical modelling.

What is R?
Course code: RSDA6013
RDF Domain: A1.1, A1.2
Speaker: Professor Adrian W Bowman, School of Mathematics and Statistics
Target Group: Any research students and postdoctoral researchers who wish to develop their skills in the field of data analysis.
Credit: 2
Description: R is an open source statistical computing system which has facilities for a very wide range of statistical methods but which is also a very flexible programming environment. There is now a very large user community and a considerable collection of additional libraries available for specialist topics. This short course aims to provide a broad introduction to the system. The topics covered will include:

(i) Facilities for standard analyses,
(ii) Graphics,
(iii) Linear models,
(iv) Multivariate methods.

The course will be based around a small number of case studies and there will be an opportunity for practical use of the system. The very wide range of facilities offered by the R environment will be outlined.

More Advanced Use of R
Course code: RSDA6014
RDF Domain: A1.1, A1.2
Speaker: Professor Adrian W Bowman, School of Mathematics and Statistics
Target Group: Research students and postdoctoral researchers who have introductory-level knowledge of R. This includes students who have attended the ‘What is R?’ session.
Credit: 2
Description: The aim of the session is to explore some of the more advanced aspects of R as a statistical computing environment.

Participants will be invited to express interest in particular topics and this will have an influence on those chosen as the focus of the session. Possibilities include random effect models, flexible regression models, spatial analysis and the use of R as a programming environment.

There may be an opportunity for participants to bring their own data, depending on the size of the group.

Programming for Biologists
Course code: RSDA6005
Speaker: Mrs Karen Lennie and Mr Euan Fulton, IT Services
Target Group: All postgraduate research students and postdoctoral researchers
Credit: 1
Description: This course, run over three half-days, provides a brief introduction to computer programming with emphasis on biological data analysis. It is aimed at those with little or no prior programming experience, but a general level of computing proficiency will be required. On successful completion of this course participants will have:

- Learned to write their own simple programs and to use/adapt programs written by others.
- Insight into when programming should be used in analysing biological data.
- Experience of the fundamentals of programming: variables, loops, control statements and working with files.
- Extracted and processed information from spreadsheet files, i.e. Excel.
- Understanding of some example programs working with DNA sequences.
- Knowledge of other available resources and how to progress further.

Notes:

1. A short course such as this cannot make you an expert programmer. Rather, the course aims to give you a taster of programming tools available for biology and how programming can be useful to you in your research.
2. Your feedback on how the course might be improved will be much appreciated.
3. STUDENTS MUST ATTEND ALL THREE DAYS.

Radiation Protection
RDF Domain: A1.1, A1.2, C1.1
Speaker: Staff from the Radiation Protection Service and SEPA
Target Group: Compulsory for students using radiation sources
Credit: 2
It is essential that any researcher working with radioactive sources is aware of the risks and how to work safely with them in a laboratory environment. This is a one-day course covering all aspects of radiation risk/protection and will be assessed. The Radiation Protection Service will also run a Spring and an Autumn Radiation Protection course.

TO BOOK A PLACE ON THIS COURSE, PLEASE COMPLETE THE REGISTRATION FORM AT: www.gla.ac.uk/myglasgow/radiationprotection/radiationprotectioncourse/courseregistrationform/

Getting Ready for the Workplace: CV Writing Skills and Job Applications
Course code: RSDB6058P
RDF Domain: B1.4-1.6, B3.1-3.3
Speaker: Mr Nairn Scobie, School of Life Sciences
Target Group: Final Year Students
Credit: 1
Description: The course will allow students to see what information should be put forward in a curriculum vitae. We will examine the student’s achievements to date and consider how these can be inserted into a CV. We will look at examples of good and bad CV’s and consider how an employer would interpret these. We will consider current job opportunities associated with their area of research and how to go about applying for these posts. This will involve filling in application forms, tailoring the CV accordingly and discussing interview techniques.
**Ethical issues and procedures for non-clinical research involving human subjects**

**Course code:** RSDA6040  
**RDF Domain:** C1.1., C1.2  
**Speaker:** Dr Jesse Dawson, Institute of Cardiovascular & Medical Sciences  
**Target Group:** All postgraduate students undertaking non-clinical research on humans, including those who may be working on a project where ethical approval has already been granted to their academic supervisor  
**Credit:** 2  
**Description:** This workshop will inform students about the ethical issues that need to be considered when conducting non-clinical research on human subjects. Both the national legislation and local University guidelines governing experiments on humans will be reviewed. The procedures for seeking ethical approval from the MVLS College Ethics Committee for non-clinical research involving human subjects will also be explained. Please note that this session will not deal with clinical research or research involving NHS patients, since these fall under the separate remit of the NHS National Research Ethics Service. It will also not deal with the ethics of experiments with animals. This workshop is **mandatory** for all postgraduate students undertaking non-clinical research on humans, including those who may be working on a project where ethical approval has already been granted to their academic supervisor.

**An Introduction to Omics**

**RDF Domain:** A1.1-1.5, A1.7, A2.1, A2.3  
**Speakers:** Drs Pawel Herzyk, Richard Burchmore, Gavin Blackburn, Ronan Daly and Graham Hamilton  
**Target Group:** Research students and staff who wish to deepen their understanding of high-throughput data generation and analysis  
**Credit:** 2  
**Description:** A two-day course (Dates to be advised: Autumn 2019/Spring 2020) aimed at familiarising course participants with the basis and application of various omics disciplines: genomics, transcriptomics, metabolomics, proteomics, and bioinformatics. Each of the omics disciplines will be covered by a lecture and a practical bioinformatics session. By the end of the course users should understand, for each omics level: the basis of the discipline, the instrumentation used to generate high-throughput biological data, key applications, and how to visualise the resulting data using commonly used software packages. Participants will also be aware of how different large-scale data sets can integrate in order to obtain better biological inference, and appreciate the nature of other modern challenges in bioinformatics.  

**IMPORTANT:** Students wishing to apply for funding to attend this course should submit an OMICS application to the Training & Awards Committee. Funding application forms can be obtained from the MVLS Graduate School Office from November 2019 for the course in Spring 2020 only. There is no funding for the Autumn course.  

**Note:** Students who are NOT seeking funding may apply to register for this course directly by contacting polyomics@glasgow.ac.uk
Fieldwork Safety
Course code: RSDA6004
RDF Domain: A1.1, A1.2, C1.1
Speaker: Dr Stewart White, School of Life Sciences
Target Group: Compulsory for all research students undertaking field work.
Credit: 2
Description: This course is compulsory for all field workers. The course will cover a range of topics and is designed to ensure that students are aware of the dangers associated with field work and how they can minimise these risks.

Ethics Approval for People Working with Human Subjects
Course code: RSDC6006
RDF Domain: C1.2, C1.3
Speaker: Dr Georgina Wardle
Target Group: Year 1
Credit: 1
Description: The University of Glasgow Ethics Committee is responsible for the approval of non-clinical research projects involving human participants. This workshop will review the background to regulations and principles governing such research. The workshop will also advise students on the procedure for applying for permission to undertake empirical research involving humans in non-clinical settings. It will not cover NHS applications, or applications involving work with animal.

Understanding Research Designs in Observational and Randomised Clinical Research
Course code: RSDA 6065P
RDF Domain: A1
Speaker: Dr Alex McMahon
Target Group: 1-4
Credit: 1
Description: The course will cover the philosophy, design, and application of observational research designs such as the case-control study and the cohort study. It will be explained how the clinical trial, i.e. the randomised controlled trial (RCT), has some parallels with observational designs but also important differences. Both observational designs and the RCTs have strengths and weaknesses. The course will explain the paradigms of these designs and how one is strong when the other is weak. Issues such as confounding by indication, and confounding by severity of indication, will be discussed. Relevant parts of the development of the RCT will be explained, including regression to the mean, how to handle protocol violators, and the concept of the pragmatic trial.

R for Research
Course code: RSDA6184
RDF Domain: A1.1, A1.2
Speaker: Mr Jesus Rodriguez Perez, Public Health, IH&W
Target Group: Anyone on a research related role utilising R as the main analysis language.
Credit: 3
Description: This course will cover the necessary material to effectively use the R programming language and related packages towards producing quality research. The course will begin with an introduction to standard R for those unfamiliar with the scripting language and most commonly used libraries. Furthermore, we will learn about version control, and how to effectively keep and organise snapshots of your work through time in semi-automated manner.

Subsequently, students will learn about streamlining the creation of quality research papers utilising Rmarkdown. Amongst other benefits, Rmarkdown helps bringing data into documents in a semi-automated way. Finally, students will also learn about creating simple dynamic web applications where to present their research results utilising RShiny.

Students with any level of programming proficiency are encouraged to join the course, as we will be very light in terms of coding and focus on basic understanding of the tools available. The only requirement is to have an interest in the R ecosystem and the ways it can enhance their research. In exchange you will be empowered with a set of tools, that will make your future work more reproducible, organised, and interactive.

We will reserve time every session for questions, and assistance in completing and understanding the exercises, and making sure people get a valuable and useful experience out of this course.

Systematic Reviews: From Protocol to Publication
Course code: RSDA6185
Speaker: Dr Michele Hilton-Boon
Target Group: Years 1 and 2
Credit: 1
Description: Rationale: A systematic review can be a useful component of a PhD project for several reasons. It can demonstrate the research gap that other components of the PhD will fill; it can investigate the variety of approaches and sources of heterogeneity in a research area; it develops a range of research skills; and, given that a systematic review can generate original findings and new knowledge, it can also produce a publishable output with impacts on policy and practice. However, a systematic review is also a resource-intensive endeavour that benefits from careful planning. Even if a full systematic review is not undertaken, the principles and methods can be applied to increase the transparency and rigour of any literature review.

Description: This short course aims to provide doctoral candidates with knowledge of best practices and reporting standards relevant to systematic reviews and meta-analyses. The session will help students make the methodological decisions necessary to balance feasibility and rigour.

The learning objectives of the course are:
1. To become familiar with the different systems and standards used in registering a review protocol and reporting a completed review (i.e. PRISMA, PROSPERO, Cochrane MECIR standards)
2. To understand when to conduct a meta-analysis and the options available when conducting synthesis without meta-analysis (narrative synthesis)
3. To become familiar with the GRADE framework for summarising findings and describing certainty in systematic reviews
4. To discuss how to complete a rigorous and (ideally) publishable review within the time and resource constraints of a PhD.

Format: 90 minute presentation followed by question and answer session
Three Minute Thesis Competition

A thesis may be up to 80,000 words long and would take 10 hours to explain.

Think you can do it in just 3 minutes to an audience of non-specialists using a single, static PowerPoint slide?

***

Enter the UofG Three Minute Thesis Competition (3MT).

You will:

- Have the chance to **win a £1000 travel grant**.
- **Hone your communication and presentation skills** at the friendliest academic competition for PGRs.
- Take advantage of **specialist coaching**.
- **Receive 2 skills training credits for participating**.
- Find out about the **exciting research** conducted by other PGRs across the University.

To **register for this year’s UofG 3MT competition**, find out about the **specialist coaching** offered to participants, and download the **UofG 3MT handbook**, visit:

[www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcoursesandevents/threeminutethesiscompetition/](http://www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcoursesandevents/threeminutethesiscompetition/)

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Design and Analysis of Comparative Experiments
Course code: RSDA6099P
RDF Domain: A1
Speaker: Professor Anna Amtmann and Dr Paul Johnson
Target Group: 2-4
Credit: 2
Description: Comparative experiments are at the heart of hypothesis-driven research and yet they are surprisingly difficult to design and to analyse. Often it is only during write-up that design flaws become apparent, making it difficult to draw meaningful conclusions. This course explores the challenges of designing and analysing comparative experiments and their practical solutions. In four half-day sessions we will address the following issues: 1. How to formulate questions and hypotheses; 2. How to design meaningful controls; 3. How to identify and evaluate sources of variation. 4. How to choose the appropriate statistical analysis methods. Each day will comprise a lecture followed by facilitated group work. The students will have the opportunity to apply the knowledge gained to their own research project and to discuss specific problems with peers and staff. Note that this is not a statistics course although considerations of how the data can and should be analysed will be an important part.

Introduction to Writing your Thesis
Course code: RSDA 6010
RDF Domain: A1.3, A1.4, A3.2, A3.4, A3.5, C1.6, D2.1, D2.2
Speaker: Dr Helen Wheeldon, Institute of Cancer Sciences
Target Group: Mandatory for students in the final year of a PhD
Credit: 2
Description: Few people are naturally gifted writers and the task of marshalling the work of three years into a coherent and cogent text is daunting. There are numerous elephant traps along the way: boredom; lost notes; other more interesting projects, as well as more serious difficulties. If you are going to complete your thesis successfully (and on time), it is important to have a strategy to help you cope. This lecture will discuss how to get started, how to plan your thesis and discuss style, content and approaches to your write up. Criteria for a PhD/MSc/MD/DDS; when to write thesis; alternative ways of undertaking the writing process; importance of a coherent theme; sections and what to include; issues about citing the literature and presentation. Minimum number of students is 10. This course is best suited for those who are about to start, or have recently begun, to write their thesis. It should not be taken by first year students.

Bio-imaging Skills for Postgraduate Students
RDF Domain: A1, A2, A3
Speaker: Dr Craig Daly, School of Life Sciences
Credit: 1
Description: The course differs from both the undergraduate [BIOL 4190] and postgraduate [BIOL5261] bio-imaging courses in which all image data, for processing and analysis, is provided. The ‘skills’ course involves data collection and hands-on experience of confocal laser scanning microscopy. Participants are invited to bring their own biological samples or they can use pre-prepared slides. The course covers an introduction to image analysis, use of ImageJ software and data collection using confocal laser scanning microscopy. Participants will process, analyze and 3D-render their own data sets. Topics covered include; digital image processing, morphometric measurement, co-localisation, multiple fluorescent probes, digital deconvolution, 3D visualisation and animation. This introductory course will not cover scripting or macro creation within ImageJ. The course runs for 4.5 days. For more information and booking, please contact Dr Craig Daly directly at Craig.Daly@glasgow.ac.uk

Screening from Early Stage Drug Discovery to Academic Specialty
Course code: RSDA6119
RDF Domain: Lead Domain is A. Includes B1, B3, C1, D1, D2, D3
Speaker: Dr Eric Kalkman, Institute of Infection, Immunity & Inflammation
Credit: 1
Description: The screening lecture aims to provide students with no pharmaceutical or drug screening background a concise overview of the way drug discovery works, both in industry and in academia. The lecture will begin discussing how pharmaceutical companies performed drug discovery for several decades using High Throughput Screening, screening millions of compounds to find a few potential drug candidates. It will discuss why this is no longer a viable model and why drug discovery is such a challenging field. The lecture will take students through a classical drug discovery project pipe-line from early stage drug discovery to clinical trials. It will then explain how the pharmaceutical industry has had to become much more transparent and is now eager to collaborate with academia, to keep drug discovery economically viable. It will discuss the main types of screening utilized today, and go into more detail regarding High Throughput Screening and High Content Screening. Finally, the lecture will point out the likely future direction of drug discovery.
Analysing Qualitative Data
Course code: RSDA6159
RDF Domain: A1
Speaker: Professor Susan Jamieson, School of Medicine, Dentistry and Nursing
Target Group: Students new to using qualitative methods (e.g. interviews) for data collection and analysis
Credit: 1
Description: This workshop aims to demystify the analysis of qualitative data. Whilst this topic is addressed in education research texts, the terminology can be confusing and it can be difficult to know which of several approaches to take. The workshop will include an interactive presentation, small-group discussion, and an opportunity to practice content and thematic analysis.

By the end of this session you will be able to:
• Distinguish between different forms of qualitative data and how they may be collected;
• Distinguish between different approaches to analysis of qualitative data and explain when they are best used;
• Undertake content and thematic analysis.

Please note that this is not a course in the use of NVIVO software. Training in the use of NVIVO is offered by UoG IT.

T-tests and ANOVA for the Analysis of Laboratory Data (primarily)
Course code: RSDA6125P
RDF Domain: Lead Domain is A. Includes A1, A2, C1 D2
Speaker: Dr John McClure, Institute of Cardiovascular & Medical Sciences
Credit: 1
Description: Students doing laboratory based projects often have to analyse their data using t-tests and ANOVA. This course will introduce how to:
- decide when t-tests and ANOVA should be considered;
- check these methods’ assumptions;
- analyse and interpret data with these methods (using Minitab).
It will also briefly consider alternatives to t-tests and ANOVA.
Whilst the course is aimed primarily at those doing laboratory based projects, it is open to anyone who is likely to need to use t-tests or ANOVA.
Preparing for the Viva
Course code: RSDA6011
RDF Domain: A3.4, A3.5, D2.1
Speaker: Professor Kevin O’Dell, School of Life Sciences
Target Group: Mandatory for students in the final year of a PhD.
Credit: 2
Description: Single two hour session: talk and discussion.
This workshop will cover the regulations governing submission and the timescale for the examination procedure. It will include discussion on the structure of the viva and the type of questions which are likely to be asked. The workshop is designed for students who intend to submit within the next 6 months. The role of the convener and the internal and external examiners will also be explained.

Qualitative Research
Course code: RSDA 6041
RDF Domain: A1.1, A1.6, A2.1
Speaker: Dr Jacqueline Reilly, Institute of Health and Wellbeing
Target Group: 1-4
Credit: 1
Description: This workshop will introduce students to the basic principles of qualitative research for the analysis of interview and focus group data. It will provide advice on when to use this approach, and a short guide to how to carry out a qualitative study. The session will be illustrated with relevant examples. The course is suitable for any student who feels that their research may include interviews or focus groups with individuals and/or groups.

Formulating a research question: true, new and important!
Course code: RSDA6097P
RDF Domain: A1, A2, A3, B1
Speaker: Dr Antony Workman, ICAMS
Target Group: Students embarking on a post-graduate experimental biomedical research project
Credit: 1
Description:
Lecture overview: Single, 1.5-2 hr
This lecture serves as an introduction, for students embarking on a post-graduate experimental biomedical research project, to the process of formulating a suitable research question. It is intended to help such students identify a scientific question to address, problem to solve, or hypothesis to test, that should maximise their chances of ultimately producing data that are valid ‘true’ and conclusive, sufficiently novel ‘new’, and having sufficient impact ‘important’ as to be worthy of publication in a high quality peer-reviewed scientific journal. The specific and general learning objectives are given below. This process should ideally be undertaken by students before starting their project, but would also be useful to students who have just begun. The lecture draws on examples from experimental cardiac electrophysiology - the area of expertise of the lecturer - but the principles involved and the learning objectives should apply to other fields of experimental biomedical research.

Specific learning objectives for ‘Formulating a research question: true, new and important!’
- To learn steps typically involved in generating and modifying a research question.
- To understand the importance of generating valid, conclusive, novel and important data.
- To encourage curiosity-led reading and experimental technique.
- To reiterate how to conduct a literature search and review.
- To emphasise the value of hypothesis-driven research.
- To introduce practical aspects of experimental design and execution.
- To gain basic understanding of cardiac electrophysiology and recording techniques.

General learning objectives for ‘Formulating a research question: true, new and important!’
- To learn through curiosity and to develop the ability to critically evaluate evidence.
- To encourage self-directed learning.
- To develop familiarity with the scientific method.
- To encourage problem-solving behaviour.
- To provide the student with an opportunity to explore a biomedical research topic in depth.
- To develop generic skills such as report writing and data handling.

Advanced Medical Statistics
RSDA6188
RDF Domain: A.1.2, A.1.3, A.2.1
Speaker: Dr Caroline Haig/Mrs Paula McSkimming
Target Group: 1-4
Credit: 1
Description: To provide introductions to the following topics: multiple linear regression; concepts of risk, odds and hazard; logistic regression; and analysis of survival data (very general introduction only). The course will be illustrated using SPSS and is designed for those with at least a basic knowledge of statistics.
HOW CAN I ENGAGE THE PUBLIC WITH MY RESEARCH?

Sharing your research with the public can be rewarding and can have a real impact on everyone involved. It can inspire you and make you think about your research in a completely different way. It can highlight the benefits and importance of research with the public. Enable you to develop transferrable skills useful to your professional development. And it can be fun!

The University of Glasgow is committed to contribute to society through public engagement and the college of MVLS has a long history of engaging the public with our world-changing research. We are embedding public engagement alongside research as a valued and important activity, and have established the MVLS Engagement team.

This team is available to help and encourage staff and students to undertake public engagement with research by offering funding, training, awards, support surgeries and engagement resources.
Visit: www.gla.ac.uk/mvls-engage
Contact: MVLS-Engage@glasgow.ac.uk
Keep updated by joining: MVLS Engage Yammer group

Here are some ways in which you can gain inspiration, develop your skills as a communicator, and engage the public in Glasgow with your own research.

**Explorathon**
Across Europe on the last Friday in September the EU celebrates research and researchers with huge public engagement events. Explorathon is Scotland’s “European Researchers’ Night” where the public get up close and hands on with our research.
Visit “engagement opportunities” www.gla.ac.uk/mvls-engage

**Glasgow Café Scientifique**
Discuss your research with the public over a glass of wine or cup of coffee. Held on the first Monday every month in Waterstones, Sauchiehall Street.
www.gla.ac.uk/events/cafescientifique/

**Glasgow Science Festival**
An annual festival showcasing researchers from the worlds of science, technology, engineering, maths and medicine (STEM). www.glasgowsciencefestival.org.uk/events/sciencefestival/getinvolved/

**Glasgow Science Centre**
‘Meet the Expert’ and ‘Science Lates’ programmes allow family and adult audiences to explore new research concepts and discoveries.
www.glasgowsciencecentre.org/support-us/meet-the-expert.html

**Glasgow Bright Club**
An opportunity for academics to communicate their research via stand-up comedy! Performers receive full training, with rehearsals and advice from a professional comedian.
www.facebook.com/brightclubglasgow

**Pint of Science - Glasgow**
Hosted annually in May this festival brings researchers to a local pub to present their scientific discoveries.
www.pintofscience.co.uk/events/glasgow
Successful Writing
Course code: RSDA 6009
RDF Domain: A1.3, A1.4, A1.6, A3.2, A3.4, A3.5, C1.6, D2.1, D2.2
Speaker: Prof Marek Dominiczak, School of Medicine, Dentistry & Nursing; Ms Kathy McFall, Head, Medical Illustration Services, NHSGGC
Target Group: Years 1 and 2
Credit: 2
Description: Good writing helps your career in science. It increases your chances of publishing in high impact journals, adds elegance to your thesis, and, generally, improves your image in the scientific community. In this workshop we first discuss the structure of a research paper and propose a disciplined approach to writing its different sections. We then discuss how to create visuals (tables, graphs, drawings and photographs) for a research paper. In the last part we go practical: we focus on writing style and give you several tips, which are likely to improve your writing right away.

Introduction to the Philosophy of Science
Course code: RSDA 6044
RDF Domain: A2.3, A3.1-3.5
Speaker: Prof Neil Spurway, School of Life Sciences
Target Group: All postgraduate research students and postdoctoral researchers
Credit: 1
Description: The course aims to outline thinking by philosophers of science from ancient Greece onwards but particularly from the last 60-70 years, about what makes for good research, the relations between theory and observation and what happens when one theory displaces another. The discussions are illustrated by frequent references to the history of the sciences, both physical and biological. Day 2 introduces the concepts of reduction(ism) and emergence, considers the modern status of evolutionary theory and finally looks at the logic of relations between scientific and religious thought-forms. You must attend both days to be counted as present.

Statistics - Linear Regression
Course code: RSDA 6036
RDF Domain: A1.1, A1.6, A2.1
Speaker: Professor Jim Lewsey, Professor of Medical Statistics
Target Group: PGT and PGR students
Credit: 1
Description: This course introduces the methods of correlation and multiple linear regression for use in medical, veterinary and life sciences research. The focus is on detailing when these methods are appropriate and interpreting SPSS and R output (correlation coefficients, linear regression coefficients, confidence intervals, p-values).

Statistics - Logistic Regression
Course code: RSDA 6095P
RDF Domain: A1.1, A1.6, A2.1
Speaker: Professor Jim Lewsey, Professor of Medical Statistics
Target Group: PGT and PGR students
Credit: 1
Description: This course introduces the method of multiple logistic regression for use in medical, veterinary and life sciences research. The focus is on detailing when this method is appropriate and interpreting SPSS and R output (odds ratios, confidence intervals, p-values, Hosmer-Lemeshow test, c-statistic).

Statistics - Survival Analysis
Course code: RSDA 6038
RDF Domain: A1.1, A1.6, A2.1
Speaker: Professor Jim Lewsey, Professor of Medical Statistics
Target Group: PGT and PGR students
Credit: 1
Description: This course introduces the methods of Kaplan-Meier and Cox regression for use in medical, veterinary and life sciences research. The focus is on detailing when these methods are appropriate and interpreting SPSS and R output (Kaplan-Meier survival estimates, log-rank test, Hazard Ratios, confidence intervals, p-values).

Statistics - Diagnostic Testing and Comparing Methods of Measurement
Course code: RSDA 6039
RDF Domain: A1.1, A1.6, A2.1
Speaker: Dr John D McClure
Target Group: PGT and PGR students
Credit: 1
Description: The session will cover: Sensitivity and Specificity, Positive Predictive Values, Negative Predictive Values, Prevalence and ROC curves. Bland-Altman Plots and 95% Limits of Agreement. It will also briefly mention inter-rater agreement methods, but will not cover these in detail.

Research Governance
Course Code: RSDA6117
RDF Domain: C1.2, C1.3
Speaker: Dr Debra Stuart, Research Governance Officer
Target Group: Any student working with within the NHS or performing research on humans
Credit: 1
Description: The session will cover:
1. General Research Governance issues when working with human subjects
2. Managing human tissue samples
3. How to obtain ethics (NHS and University)
4. How to obtain a research passport

Intellectual Property and Economic Impact Opportunities for your Research
Course Code: RSDC6035
RDF Domain: C1, C2, C3
Speaker: Mr Adam Majumdar, Research & Innovation Services
Target Group: Years 1 - 4 research students
Credit: 1
Description: This course will provide an overview of:

- Intellectual Property and how it applies to the life sciences
- Factors to consider in developing intellectual property rights in your research
- Role of intellectual property in creating economic impact from research
- Commercial exploitation of intellectual property via licensing and spin-out company formation

The course will be delivered by a team of presenters comprising patent agent; venture capital investor; IP lawyer and technology transfer manager.
Mental Health First Aid Training
Course code: RSDB6077
RDF Domain: B1, B2, B3, D1
Speaker: Ms Rachel Paisley
Target Group: Years 1 - 4
Credit: 2
Description: This is an NHS devised, Scottish Government promoted qualification that is internationally recognised. Through learning about various mental health conditions such as: depression, anxiety and self-harm and listening skills, the course trains individuals to recognise a mental health crisis, provide immediate support and then signpost to a suitable professional, whilst at the same time safe guarding themselves. An added benefit of the course is that through learning to support others, the participant learns valuable methods for maintaining their own mental health. It is one of only two courses in Scotland that specifically targets suicide prevention and the participants receive training in this area.

Scotland’s Mental Health First Aid training is a 12 hour evidence based course run over 2 days and will teach you to:
- give initial help to someone experiencing mental health problems
- deal with a crisis situation or the first signs of someone developing mental ill health
- guide people towards appropriate professional help

The course covers a number of topics including:
- what is meant by mental health and mental ill health
- the signs and symptoms of common mental health problems, including depression, anxiety disorders and psychosis
- the range of effective interventions and treatments
- how to access professional help and support.

Participants will receive a certificate of attendance and a copy of the SMHFA manual.

Teaching with Technology
Course Code: RSDD6069
RDF Domain: B3.2, D1.5, D3.1, D3.6
Speaker: Dr Anna McGregor, School of Life Sciences
Target Group: Postgraduate research students or postdoctoral researchers but especially those considering a position that involves teaching in higher education.
Credit: 1
Description: This workshop will familiarise students with current applications of technology in teaching and serve to enhance the basic concepts covered in the GTA training for demonstrators. Teaching practice in today’s higher education environment now involves a range of technologies, so for postgraduate research students entering such institutions, familiarity with potential tools and resources could give them an advantage in obtaining a position or designing effective coursework. This course will introduce key concepts about current applications of technology in academic practice, including virtual learning environments, tools for blended learning or entirely online courses, electronic response systems and more subject-specific pedagogical software. Following an overview of these technologies, this course will provide some tips and tricks for implementing these resources in any future teaching opportunities.

Concepts to be covered include: Virtual learning environments, Plagiarism checking software, Assessments with technology, Electronic response systems, Online portfolios and lab notebooks, Social media in the classroom, Blended learning, Online courses / MOOCs, Flipped classroom approaches, Supporting diverse learners.

By the end of this course, you will be able to:
- Explain current concepts related to the use of technology in teaching
- List several frequently used software applications
- Apply a few technologies to improve your teaching practice
How do I engage the public with my research
Parts 1 & 2? Getting started and developing practical activities

Course code: RSDD6009
RDF Domain: D2, D3.2, D3.5
Speaker: Dr Tansy Hammarton, Dr Vickie Curtis and Dr Claire Donald, Institute of Infection, Immunity and Inflammation MVLS
Target Group: All postgraduate students and postdoctoral researchers
Credit: 2

Description: RCUK define public engagement as ‘a two-way process involving interaction and listening with the goal of generating mutual benefit’. This one-day course will explore the importance and benefits of public engagement with research. It will help you to identify who your ‘public’ are, how to make your science accessible to them, and it will introduce a number of approaches that will help you to plan and execute engagement activities with your audiences.

This course is aimed at anyone with an interest in finding out more about public engagement and how to get started, and has a focus on delivering face to face public engagement activities e.g. hands-on practical demonstrations.

In the morning, we will start with an introduction to public engagement – why, who and how? This session will provide an overview of public engagement – what it is, why it is important and the many ways in which you can get involved. We will discuss popular approaches and activities such as public lectures, discussion groups (e.g. Café Scientifique), science festivals, working with schools, and engaging with the media. Newer and more alternative approaches involving digital platforms, games, art-science collaborations and public participation in scientific research (e.g. citizen science) will also be explored. Finally, this session will consider the more practical aspects of public engagement such as how you can make your research accessible to different groups, the nitty-gritty of planning and organising your own activity, how to obtain funding, and how you can evaluate a public engagement event.

In the afternoon, we will move on to exploring how to tailor your activity and language appropriately for the audience you wish to reach. You will also explore ways to mock up your own experiments for the non-specialist, and will get to try out some pre-tested schools/science festival experiments to gain inspiration before putting all of what you have learned together and considering how you can apply it to your own research.
ALL OTHER COURSES
(pages 23 – 40)

Credits for courses on these pages can be claimed by completing a Skills Credit Application Form www.gla.ac.uk/colleges/mvls/graduateschool/currentpgrstudentinformation/pgrstudentforms/ and returning this to the MVLS Graduate School mvls-gradschool@glasgow.ac.uk as soon as possible.

If these courses have references starting with RSD… e.g. RSDC6023 - you do not need to supply evidence of attendance because these courses are listed on your My Campus record.

For every other course you must supply evidence of attendance such as a programme timetable, event flyer, email from course presenter etc as proof of attendance where formal proof of registration is not available.
Helping enterprising students start up and run their own business

Self-employment is an option which more and more of our students are considering, whether that be starting their own business, working freelance or becoming a sole trader. Here at the University of Glasgow, we are keen to provide the help and support our enterprising and entrepreneurial students need in order to turn their dreams into reality, for instance, by helping them test out their ideas through 1-2-1 mentoring and competitions, or assisting during the actual business start-up process and beyond.

Support available includes:

- Practical business start-up workshops
- Assistance with legal structures and set-up
- 1-2-1 business advice clinics
- Mentoring Programme
- Help with business and financial planning
- Summer StartUp Workshop Programme (June - end Aug)
- Summer Company Programme (competitive/£2.5K grant funding)
- StartUp Visa support and endorsement (final year students recent graduates)
- Support in perfecting your business plan
- Advice on pitching
- Advice on how to secure funding
- Connections to professional advisers including external business support agencies, solicitors, accountants and IP specialists
- Guidance through the process of launching your business
- Ongoing support when your venture is up and running

Competition Support:

Business Competitions, of which there are many, can play a key role in providing the initial finance required to get started in business. Some successful examples being Young Alumni of the Year 2017, Susanne Mitschke and Patrick Renner, who founded MindMate while studying at Glasgow and went on to be joint winners of Converge Challenge 2016. Corien Staels of wheelAIR® has also reaped the rewards of engaging in competitions whilst at Glasgow winning the Converge Challenge Design and Creativity Award in 2017, a £100,000 award from Scottish EDGE Round 10 and becoming a Royal Society of Edinburgh Enterprise Fellow.

Joan Kangro, Kingdom Technologies, gained a place on the RSE Unlocking Ambition Enterprise Fellowship in 2018 and has just successfully closed a £400K funding round for the development of his robotic lawnmower.

In 2019 we have had finalists in most of the business start up competitions such as Scottish Edge and Converge Challenge and have finalists in the Santander Universities Entrepreneurship Awards. One of the co-founders of SE/ME, a social enterprise helping homeless people, is Salma Khatun who is also a third year medical school student. Many of our students, both undergraduate and postgraduate, have started up and run their own ventures whilst studying here. They have come from a variety of disciplines from across the University and often we see students who only have a vague idea for a business that they may want to pursue in future. With the right help and guidance, Student Enterprise could bring out the entrepreneur in you.

For more information or to make an appointment please contact our Enterprise Manager, Marion Anderson: marion.anderson@glasgow.ac.uk www.glasgow.ac.uk/studententerprise
There are several Mandatory courses for new PGRs:

**Research Integrity SCI**

- **Course Code:** RSDC 6023
- **Speaker:** External
- **Duration:** 3 hours
- **Target Group:** Postgraduate researchers or new postdoctoral researchers. Mandatory for new first year postgraduate researchers.
- **Description:** This workshop is intended to promote open discussion of issues relating to research integrity, introducing the following topics, with the use of case studies and examples:
  - Good research conduct (referring to the University’s own policies and national developments, such as the Concordat for Research Integrity)
  - Authorship, Conflicts of interest and Peer review
  - Plagiarism and self-plagiarism
  - Digital image manipulation
  - Data management and open access
  - Research misconduct and whistle-blowing.

The workshop is intended to equip researchers with the knowledge and awareness that will allow them to approach research, collaborations, publication and innovation with a good understanding of what is considered to be good research practice, as well as potential pitfalls or grey areas that they might encounter.
Data Management SCI
Course Code: RSDC 6025
RDF Domain: B1-2, C1-2
Speaker: delivered by Research Data Management Service
Target Group: postgraduate researchers.
Duration: 2 days
Description: 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.

Information Security Awareness
(Online Training) Mandatory
Description: IT systems and the information they hold have become critical to the operation of the University, as well as many other aspects of everyday life. At the same time, there are multiple risks to their security, threatening the confidentiality, integrity, privacy and availability of information and systems. The more you are aware of these risks, the more you can do to keep everyone’s data safe. You can also avoid falling victim to scams designed to steal your personal data and, in some cases, your money. UofG have developed a free online course for all students and staff, highlighting current threats and providing practical advice on how to avoid them. The course takes about an hour to complete and is divided into short sections so can you can spread it over several days if you prefer.

OPTIONAL COURSES

Project Management – Your PhD and Beyond
Course Code: RSDC 6002
RDF Domain: B1-2, C1-2, D1
Speaker: Run by MY Consultants
Target Group: PhD researchers from any subject area or year of study.
Duration: 1 day
Description: Project management is a great skill to have whether you are planning to stay in academic research or pursue a different career. This one-day course provides a basic introduction to project management techniques that will help you with the following aspects when planning your PhD:
- Developing a clear and detailed scope and structure 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.

This course is not open to those attending the two-day project management course.

Presenting with Impact
Course Code: RSDD 6002
RDF Domain: B1, D2
Speaker: delivered by Voicebusiness
Target Group: all postgraduate researchers
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.
Research Ventures
Course Code: RSDD 6006
RDF Domains: A3, C1-3, D1-3
Speaker: Various
Duration: 2 days
Target Group: PhD researchers and postdoctoral researchers from any subject area or year of study
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.

Writing a Data Management Plan with DMOnline
Course Code: RSDC 6030
RDF Domain: B1-2, C1-2
Speaker: delivered by Research Data Management Service
Target Group: Postgraduate researchers who are in their second year of study or above.
Duration: 2 hours.
Description: The University and most funding bodies now require 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 DMOnline, a flexible web-based tool, to create DMPs. The course will provide guidance on using DMOnline and an introduction to data management planning. After an introduction, researchers will have an opportunity to draft a DMP with support from instructors.

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).

Mind Your Mate
Course Code: RSDB 6095
RDF Domain: D2
Speaker: delivered by SRC volunteer
Target Group: All postgraduate researchers
Duration: 3 hrs
Description: The university has launched the ‘Mind Your Mate’ training programme to help empower all UoG researchers and staff to support themselves and each other. This 3-hour interactive workshop covers basic mental health awareness and suicide prevention skills. The overall aim of Mind Your Mate is to reduce the barriers preventing people from accessing the help they need, provide participants with the confidence and skills to help someone in crisis and reduce the stigma around discussing mental health and suicide.

Engaging Government and Policy Makers with Research
Course Code: RSDC 6032
RDF Domain: B3, C1-2, D1-3
Speaker: Various
Target Group: All postgraduate researchers.
Duration: 1 day.
Description: 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 and Scottish governments.

The day is led by a representative from the UK Parliamentary Office of Science and Technology (POST), and will feature presentations from previous POST interns, the careers advisor for researchers, senior academic staff, and Scottish Parliament. In the afternoon, participants will have the chance to draw up and receive feedback on POSTnotes: briefings providing MPs, MSPs, and Peers with accessible, balanced and independent analysis of public policy issues.

3MT Competition
Information for enrolment sent out in January.
RDF Domain: A3, B1, D2-3
Speaker: All postgraduate Researchers
Target Group: All postgraduate Researchers
Participants receive 2 credits.
Description: 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. 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:
www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcoursesandevents/threeminutethesiscompetition/

Business beyond the bottom line
Course Code: RSDD 6032
RDF Domains: A2-3, B3, D1, D3
Speaker: Firstport
Duration: 1 day.
Target Group: Researchers from any subject area or year of study
Description: Researchers from any subject area or year of study
Description: 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.
- 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.
Risky Business
Course Code: RSDD 6001
RDF Domains: A2-3, B3, D1, D3
Speaker: Catenion
Target Group: Group: Researchers from any subject area or year of study
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.

Postgraduate Leadership Programme
Course Code: RSDD 6001
RDF Domain: B1-3, C2, D1
Speaker: Richard Marshall, Robin Henderson and guest lecturers
Target Group: Any subject area, this is intended for researchers who are at least 6 months into their PhD
Duration: 4 days over 2 months (contact time)
Description: Although you might not feel you are in the position of a leader at the moment, 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.

Animations for Research
Course Code: RSDD 6076
RDF Domain: D2
Speaker: delivered by Vivomotion
Target Group: All postgraduate researchers
Duration: 3 hours
Description: Learn how to create video animations with Sparkol software to share your research in fun and accessible ways or maximise the impact of your presentations. This comprehensive course will cover script writing, storyboarding and animation production followed by a software demonstration. Applications for the use of such animation will be highlighted through case studies. By the end of this half-day workshop, participants will have:

- Sketched out a storyboard on their research.
- Know how to proceed to complete production of their animation using Sparkol Videoscribe software.

Posters and PowerPoint
Course Code: RSDD 6081
RDF Domains: D2
Speaker: delivered by Vivomotion
Target Group: All postgraduate researchers
Duration: 3 hours
Description: Sharing your research findings via a poster or PowerPoint presentation 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 visual presentations.

Researchers will be introduced 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.

By the end of this workshop, researchers should be able to:

- Define the principles around poster/presentation design including layout, colour and font selection.
- Know what to include in your poster/presentation.
- Have created a rough draft of a poster on your own research.

Data Visualisation and Infographics
Course Code: RSDD 6082
RDF Domain: D2
Speaker: delivered by Vivomotion
Target Group: All postgraduate researchers
Duration: 3 hours
Description: This workshop will serve as an introduction to the vast field of data visualisation. Highlighting on-line 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.

This workshop will look at how data can be turned into compelling visual stories, including flat graphic design (infographics). Topics covered include:

- The importance of good visual storytelling;
- Designing and presenting graphs and charts to maximise their impact; and
- Examples of good practice.

Please note: Although different visualisation software options will be discussed during the workshop, this is not a software-training course. By the end of this workshop, you should be able to:

- Access several on-line tools available for data visualisation.
- Design novel infographics for your research topics.

Myers Briggs Personality Type Indicator Workshops
Not booked via MyCampus
Speaker: Katrina Gardner, Careers Service
Target Group: All postgraduate and postdoctoral researchers
Description: This workshop offers an in-depth exploration of your personality to enhance your understanding of yourself, your motivations, your natural strengths and your potential areas for growth. It looks at how you prefer to interact with others, take in information and use that to make decisions and form opinions. It can be useful in helping you with career planning and in understanding the ways that other people (perhaps supervisors or colleagues) prefer to work or operate. These workshops should be booked directly with Katrina Gardner.

Email: Katrina.Gardner@glasgow.ac.uk

Bootcamp
Not booked via MyCampus
Speaker: Jennifer Boyle, Academic Writing Adviser
Target Group: Any year
Description: Places by application only – time to work on your writing, with no distractions.

Email: jennifer.boyle@glasgow.ac.uk
GRAD on the Island
Course Code: RSDB 6006
RDF Domain: A3, B1-2, D1-2
Speaker: Various
Target Group: Postgraduate researchers from any discipline and any year of study
Duration: 4 days
Description: This course takes postgraduate researchers into a new environment. Based in a remote corner of the Isle of Mull, this course gives you the chance to take a step back from your research to consider your own skills, strengths, motivations and career aspirations. Over the four days, you will take part in group activities, have space for quiet reflection and new ideas and soak up the atmosphere of the West Coast, while keeping an eye out for dolphins and sea-eagles!

The themes of the programme are:
• Personal and career development
• Collaboration and partnership working
• Engaging the community with your research
• Creative thinking

Based in old quarrymen’s cottages in a remote bay, 20 mins. walk from the nearest road, the accommodation is basic. 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.

Establishing a Writing Practice SCI
Course Code: RSDA 6082
RDF Domain: A1-3, B1, D2
Speaker: Jennifer Boyle, Academic Writing Adviser
Duration: 1.5 hours
Target Group: First year PhD researchers
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.

Literature Critiques/Reviews SCI
Course Code: RSDA 6083
RDF Domain: A1-3, B1, D2
Speaker: Jennifer Boyle, Academic Writing Adviser
Duration: 1.5 hours
Target Group: Any year
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.

Structuring Your Dissertation SCI
Course Code: RSDD 6085
RDF Domain: A1-3, B1, D2
Speaker: Jennifer Boyle, Academic Writing Adviser
Duration: 1.5 hours
Target Group: Any year
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

Effective Writing 1 SCI
Course Code: RSDA 6086
RDF Domain: A1-3, B1, D2
Speaker: Jennifer Boyle, Academic Writing Adviser
Duration: 1.5 hours
Target Group: Any year
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:
• Assessing your writing practice.
• Process and product writing.
• Using critical reading to inform your writing style.

Effective Writing 2 SCI
Course Code: RSDD 6087
RDF Domain: A1-3, B1, D2
Speaker: Jennifer Boyle, Academic Writing Adviser
Duration: 1.5 hours
Target Group: Any year
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:
• Assessing your writing practice.
• Process and product writing.
• Using critical reading to inform your writing style.

Writing for Publication SCI
Course Code: RSDA 6088
RDF Domain: A1-3, B1, D2
Speaker: Jennifer Boyle, Academic Writing Adviser
Duration: 1.5 hours
Target Group: Any year
Description: This workshop is intended to provide you with a general overview of writing for publication. The session will cover topics such as:
• The publication process.
• Types of journal articles.
• Making time for writing for publications.
• Dealing with feedback.

Working Towards Research Impact
Course Code: RSDD 6071
RDF Domains: D2-3
Speaker: delivered by Research and Innovation Services
Target Group: Postgraduate researchers who are at least 6 months into their research
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.
Wellbeing Workshops

The following workshops are offered throughout the year. Usually no booking is necessary and your attendance is not registered on your student record.

For times and dates, please check the wellbeing webpages: www.gla.ac.uk/pgrwellbeing or email researcher-development@glasgow.ac.uk for further details.

PhD and Sleep
New city, new routine, thesis-writing, job-hunting, anxiety... There are lots of reasons why, as a research student, you might be experiencing difficulties with either getting to sleep or staying asleep. In this session, participants will learn about the science behind sleep, as well as practical strategies for overcoming common problems.

If you are unable to attend but are interested in the topic, you might find these resources useful:
C. A. Espie, Overcoming Insomnia and Sleep Problems: A Self-help Guide (London, 2010). This is a book with lots of practical tips, available in the UoG library. The author is an Honorary Research Fellow at the University and a leading sleep researcher at Oxford.

And this is a free resource, based on the same research: www.mentalhealth.org.uk/publications/how-sleep-better

Sitting at a Desk – A Pain in the Neck
This workshop explains the origins of most common neck and shoulder pain associated with working at a desk or with a computer. We explore ways to improve seated posture to minimise pain and end with exercises and stretches to maintain this.

Managing Personal Finance
Dealing with finances is much less stressful when you have the right information. The SRC Advice Centre is hosting a briefing session covering topics such as budgeting, maximizing your income, common council tax queries and emergency funding.

Managing Stress
If you are unable to attend but are interested in the topic, you might find the resources and information listed here useful:
www.gla.ac.uk/colleges/socialsciences/students/wellbeing/wellbeing%20a-z/feelinganxiousandstressed/

Overcoming Perfectionism
The best can be the enemy of the good: come along to this session for tips on how to overcome perfectionism. If you are unable to attend but are interested in the topic, you might find the materials and information listed here useful:
www.gla.ac.uk/colleges/socialsciences/students/wellbeing/wellbeing%20a-z/perfectionism/

Social Events and Physical Exercise
PGR Gardening
Thursdays 1 PM
Fancy growing your own fruit or veg., or just making a small corner of Glasgow your very own peaceful pastoral haven? If you are interested in getting involved with PGR gardening, please just follow the link at the bottom of the page to sign up: https://www.gla.ac.uk/pgrdevelopment

Please also keep a lookout for news about the weekly PGR Walk, or competitions including Crafternoon and Bake-off.

PERSONAL SAFETY AND FIRST AID FOR FIELDWORK AND RESEARCH VISITS

The following support and courses are provided for the safety and wellbeing of those undertaking fieldwork or research visits of any type in the UK or abroad.

Preparing for Fieldwork in Complex or Hostile Environments
(Online Training)
This course is aimed at researchers and their supervisors, who are undertaking independent fieldwork in situations that might be considered to be dangerous or complex, whether in the UK or abroad.

Aims:
• To provide information and links to training, support, and guidance that will help with planning and conducting fieldwork safely.
• To provide opportunities to ask questions, connect with other researchers and develop an awareness of some of the challenges that you might be faced with when undertaking fieldwork.
• To provide structure for students to write their own fieldwork preparation action plan and reflect on this during and after fieldwork.

The link to access the course through Moodle can be found here: https://moodle.gla.ac.uk/course/view.php?id=15977

Also see page 30

Emergency First Aid
Course Code: RSDB 6012
RDF Domain: B1
Speaker: Delivered by Stewart First Aid Training
Target Group: All postgraduate researchers
Duration: 1 day
Description: This course, delivered by trainers from the university’s accredited first aid training provider, Stewart First Aid Training, will deal with the essentials of emergency first aid.

Outdoor First Aid
Course Code: RSDC 6039
RDF Domain: B1
Speaker: British Association of Ski Patrollers
Target Group: Only available to postgraduate researchers undertaking fieldwork in relevant contexts.
Duration: 2 Days
Description: The two 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. You MUST bring suitable footwear (flat shoes) and clothing including any kit you normally wear for outdoor scenarios. Please wear waterproof clothing as there may be scenarios where someone is asked to pretend to be a casualty on the ground.

You must email researcher-development@glasgow.ac.uk to reserve a space on this course, copying in your supervisor and providing a short paragraph of context (e.g. the type of environment you will be working in, country being visited, scenarios you might encounter).
Personal Safety
Course Code: RSDB 6096
RDF Domain: B1
Speaker: British Association of Ski Patrollers
Target Group: Postgraduate Researchers undertaking fieldwork, research trips or lone working.
Duration: 1 day
Description: This short workshop is based on work by the Suzy Lamplugh Trust and is designed to raise awareness of potential risks researchers may face while on fieldwork, research trips or lone working. Participants will learn tools to minimise these risks and feel more confident in managing their personal safety and conflict situations.

You must email researcher-development@glasgow.ac.uk to reserve a space on this course.

Security Awareness Training (Hostile and Fragile Countries)
Course Code: RSDC 6038
RDF Domain: B1
Speaker: Shield Global
Target Group: Postgraduate Researchers undertaking fieldwork, research trips or lone working.
Duration: 2 days
Description: This comprehensive, hands-on course, run over two days, uses real-life examples and scenarios to allow participants to gain knowledge and practical skills to prepare them to deal with various situations and threats that they may face while undertaking fieldwork in hostile or fragile environments.

You must email researcher-development@glasgow.ac.uk to reserve a space on this course, copying in your supervisor and providing a short paragraph of context (e.g. the type of environment you will be working in, country being visited, scenarios you might encounter).
Online Courses

Equality and Diversity Training for Postgraduate Research Students
‘Equality and Diversity Essentials’
(Online Training) Mandatory

Description: 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.

You can work through the course at your own speed. You can also stop the course at any point and resume later from that same point.

The aim of the course is to:

- 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

The link to access the course through Moodle can be found here: https://moodle.gla.ac.uk/course/view.php?id=1944

Information Security Awareness
(Online Training) Mandatory

Description: IT systems and the information they hold have become critical to the operation of the University, as well as many other aspects of everyday life. At the same time, there are multiple risks to their security, threatening the confidentiality, integrity, privacy and availability of information and systems. The more you are aware of these risks, the more you can do to keep everyone’s data safe. You can also avoid falling victim to scams designed to steal your personal data and, in some cases, your money. UofG have developed a free online course for all students and staff, highlighting current threats and providing practical advice on how to avoid them. The course takes about an hour to complete and is divided into short sections so you can spread it over several days if you prefer.

The link to access the course through Moodle can be found here: https://www.gla.ac.uk/myglasgow/it/informationsecurity/awarenessmodule/

Preparing for Fieldwork in Complex or Hostile Environments
(Online Training)

This course is aimed at researchers and their supervisors, who are undertaking independent fieldwork in situations that might be considered to be dangerous or complex, whether in the UK or abroad. Aims:

- To provide information and links to training, support, and guidance that will help with planning and conducting fieldwork safely.
- To provide opportunities to ask questions, connect with other researchers and develop an awareness of some of the challenges that you might be faced with when undertaking fieldwork.
- To provide structure for students to write their own fieldwork preparation action plan and reflect on this during and after fieldwork.

The link to access the course through Moodle can be found here: https://moodle.gla.ac.uk/course/view.php?id=15977

Statistics for Postgraduate Students
https://moodle.gla.ac.uk/course/view.php?id=6374
Enrolment key (PGTPGRStats)
RDF Domains: A1.1, A1.6, A2.1

This ‘course’ holds resources that we hope students will find useful in learning statistics during their time as a PGR student within MVLS. This is not a formal course that will be assessed.

Owner Professor Jim Lewsey

Data Skills for Reproducible Science
https://gupsych.github.io/data_skills/
RDF Domain A1.1-3, A1.5-7

This course provides an overview of skills needed for reproducible research and open science using the statistical programming language R. Students will learn about data visualisation, data tidying and wrangling, archiving, iteration and functions, probability and data simulations, general linear models, and reproducible workflows. Learning is reinforced through weekly assignments that involve working with different types of data.
Written for and by UofG postgraduate researchers, the UofG PGR Blog is here to help you navigate PGR life, whether you’re just starting out, or contemplating what lies beyond the viva.

From beating writer’s block and preparing for progress reviews, to regular competitions and sharing personal PGR experiences, the UofG PGR Blog is your place to share hints, tips, and strategies for getting through your research degree successfully, and enjoying yourselves along the way.

Established in 2016, the blog now has over 200 posts dedicated to the PGR experience and is regularly updated by our dedicated team of bloggers and guest authors. If you have any ideas for future posts, please get in touch!

Connect with the UofG PGR community: [www.uofgpgrblog.com](http://www.uofgpgrblog.com)

Follow us on Twitter and Instagram:
@UofG_PGRblog
#TeamUofG #UofGpgrblog #UofGworldchangers
Courses Currently Available

### NRS Introduction to Good Clinical Practice (Full day)
**Domain A1/C1**
This one day course is designed either for those who have not studied Good Clinical Practice (GCP) before or those who have studied it more than two years ago. It is presented as a practical introduction to the subject and consists of a mixture of short lectures interspersed with practical activities, culminating in a monitoring workshop. The monitoring workshop allows the more abstract concepts that have been discussed throughout the day to be brought to life.

While the principles of GCP that are covered in the course are common to a wide range of different types of clinical research the course does focus on the drug trial specific legislation. However, it also promotes the 'GCP-mindset' needed to satisfy inspectors and auditors, and would therefore be useful for all clinical researchers.

This ICH E6 GCP Investigator Site Training meets the Minimum Criteria for ICH GCP Investigator Site Personnel Training identified by TransCelerate BioPharma, Inc. as necessary to enable mutual recognition of GCP training among trial sponsors.

### NRS GCP Update (Half-day)
**Domain A1/C1**
This course is relevant for those who are conducting or supporting Clinical Trials of Investigational Medicinal Products (CTIMPs) and who have previously undertaken a GCP course. It is suitable for those who require an update to provide evidence of having maintained and updated their knowledge of GCP. Attendance at the half day update course requires you to have undertaken GCP training within the past two years. The course is compliant with Transcelerate requirements.

### Good Research Practice (Non-Drug Trials) (Half-day)
**Domain A1/C1**
Good Research Practice (Non-drug Trials) This half-day course is appropriate for anyone conducting or supporting clinical research that does not involve a ‘drug’. The course will provide research staff with the knowledge to undertake quality research in accordance with the UK Policy Framework for Health and Social Care Research, recognising the responsibilities and requirements to conduct safe high-quality clinical research.

Topics include:
- History of Research Governance
- Informed Consent
- Roles & Responsibilities
- Approvals
- Documentation
- Data Management.
Clinical Trial of an Investigational Medicinal Product (CTIMP) Workshop (Full-day)
Domain A1/C1
The aim of this workshop is to equip clinical research staff with an understanding of the key elements involved in conducting a clinical trial of an investigational medicinal product (CTIMP). The workshop will consist of a mixture of presentations, case studies and practical exercises. It is relevant to those who are new to research and for those who would like to improve their understanding of clinical trials involving an investigational medicinal product.

After the Workshop, each Participant will:
• Understand relevant CTIMP terminology and the requirements for CTIMPs including permissions and approvals.
• Demonstrate the use of a protocol in setting up a CTIMP and planning a study visit.
• Describe the key issues that impact on recruitment and retention.
• Describe the key elements relating to the management of the investigational medicinal product (IMP).
• Recognise the importance of accurate documentation throughout all trial-related activities.
• Understand the importance of safety measures and parameters in CTIMPs and the responsibilities of the research team in monitoring these.

Informed Consent – Adults Ethical, legal & practical aspects in clinical research
Domain A1/C1
Informed consent is the foundation of all clinical research. This workshop will focus on the legal and practical issues around obtaining informed consent from adults participating in clinical research, including vulnerable groups who require additional safeguards. It will also cover consent issues relating to the use of human tissue and data in research. The workshop will consist of a mixture of short presentations and activities. It is designed for anyone who is involved in the informed consent process in clinical research.

Paediatric consent: The Practicalities and Legalities in Taking Consent for Paediatric Trials (Full day)
Domain A1/C1
This course, delivered by solicitors from the Scottish Child Law Centre alongside experienced clinical researchers, examines the ethical, legal and practical considerations of obtaining consent for paediatric clinical trials. Using case studies, participants will be introduced to a variety of scenarios to facilitate discussion around the challenges and potential complexities faced during the consent process. During the course, participants will have the opportunity to relate theory to practice in small discussion groups.

Suitable for all those involved in paediatric trials, the aim of the course is to provide participants with an improved knowledge of the subject and the confidence to apply best practice within their own work areas.

Early Phase Clinical Trials Workshop (Half-day)
Domain A1/C1
The aim of this workshop is to equip clinical research staff with an understanding of the key elements involved in conducting an early phase clinical trial of an investigational medicinal product (CTIMP). The workshop will consist of a mixture of presentations, case studies and practical exercises. It is relevant to those who those who would like to improve their understanding of early phase clinical trials.

After the Workshop, each Participant will:
• Be familiar with the phases of clinical trials.
• Have an understanding of pharmacokinetics and pharmacodynamics and the practical implications of obtaining these measurements accurately.
• Understand risk assessment in early phase trials and procedures to mitigate risks.
• Understand of safety reporting in clinical trials.

Laboratory Workshop for Research Staff (Full-day)
Domain A1/C1
This workshop follows the UKCRF Network guidelines for Laboratory skills training. The aim of the workshop is to equip staff with the knowledge and practical skills necessary to carry out sample handling and processing with particular emphasis on samples for research studies. The workshop is relevant to those who are new to research or to sample processing.

After the workshop each participant will:
• Demonstrate knowledge of laboratory legislation, regulation and risk assessment.
• Describe the safety precautions to be observed in a laboratory setting.
• Explain the term pre-analytics.
• Operate a centrifuge safely.
• Demonstrate safe handling, processing and storage of samples.
• Understand the regulations surrounding the transport and packaging of dangerous goods.

Research, GDPR and Confidentiality (Half-day)
Domain A1/C1
The session will last 3 hours and will cover many of the practical aspects of information law likely to be encountered by health and social care researchers in the UK. It will comprise of a series of short didactic sessions, intermixed with workshop activities to help consolidate learning. All workshops will be based on ‘real-life’ examples. Workshops will be tailored to ensure relevance to different audiences. Attendees will be encouraged to ask questions.

Target Audience:
• Any researcher or research support staff who collects, manages, handles or accesses information about people to support research activities.
• It may also be relevant / of interest to Research and other governance managers. But it will not directly address all of their specific learning needs.
• Members of research ethics committees may find the content interesting, but again this training will not directly address their specific learning needs.

Introduction to Medical Statistics Part 1 (Half-day)
Domain A1
This course assumes no prior statistical knowledge and covers the basic concepts necessary to understand the other courses which follow from this.

The course will cover the following topics:
• The importance of statistics in medical research, inc. ethics.
• Types of data – quantitative or qualitative?
• Graphical summaries of data – inc. bar charts, boxplots, scatterplots, histograms.
• Numerical summaries of data – for symmetric and skewed distributions.
• The Normal distribution.
• Outliers in data sets and tests for outliers.

Each concept will be illustrated using real medical research examples and ethical considerations and limitations will be discussed throughout. The course will provide an introduction to Minitab (version 16) and participants will be able to reproduce graphics and summary statistics from the lectures using the software package.
**Introduction to Medical Statistics Part 2 Including Correlation and Regression (Half-day)**

Domain A1

This course looks at the methods of assessment and modelling linear relationships between quantitative variables. It starts with an explanation of correlation, and the correct and incorrect use of correlation coefficients in medical research studies is illustrated using several examples. Least squares linear regression is then covered, including some of the mathematical concepts behind the model fitting. Assessment of the model goodness-of-fit and predictions will be explained by working through an example of a real research study. The theory covered here forms the basis for more complex statistical modelling procedures which will be referred to, but not taught explicitly. Both correlation and regression modelling are simply implemented using Minitab and course participants will work through examples using data from the lecture.

**Medical Statistics Part 3 Hypothesis Testing (Half-Day)**

Attendees to this workshop must have attended Introduction to Medical Statistics – Part 1 and Medical Statistics (Correlation and Regression) – Part 2.

Domain A1

The ideas of using statistics to determine the probability of an event will be introduced and the application to formal statistical hypothesis tests will be explained. This will include a simple and clear explanation of the terminology and ideas behind the null and alternative hypotheses, p-values and confidence intervals, problems with randomisation, double-blind RCTs, Type I and Type II errors and the use of intention-to-treat and per-protocol analysis. The approach to determining the correct statistical test to perform will be taught, and the appropriateness of parametric vs. non-parametric tests discussed.

Examples of the following tests will be given:
- T-tests and Mann-Whitney tests
- ANOVA and Kruskal-Wallis inc. posthoc comparisons and Bonferroni
- Chi-squared and Fisher’s Exact tests.

Participants will then have the opportunity to perform these statistical tests themselves using the statistical package Minitab.

**Power & Sample Size Calculations Part 4 (Half-day)**

In order to be able to do this course, participants would have to be familiar with all the concepts covered in Part 3 - Hypothesis Testing course.

Domain A1

Sample size calculations should be an important component of any study protocol and is required for most grant applications. It is also necessary for ethical approval since the success or failure of a study can depend on whether the appropriate number of individuals is included. Study participants (humans or animals) are put at risk (or at least inconvenienced) than necessary, and resources are overstretched. This course will explain the information required to work out sample sizes and also address the problems associated with too small or large a study. Examples of computing sample sizes by hand will be illustrated for the comparison of two groups with both quantitative and qualitative outcomes of interest. Adjustments for drop outs will also be explained.

The use of Minitab for these calculations will also be covered and participants will be able to work through lecture examples using the software. In addition, Minitab will be used to compute sample sizes for observational studies and those with more than 2 groups (ANOVA).

**New Courses**

**Advanced Literature Searching (Half-day)**

Domain A2

Learning Objectives:
- Recognise the literature and databases available for searches
- Recognise the correct search terms, key words and databases
- Completed a search for books, journals, scientific papers
- Plan for a comprehensive search of the literature.

**Critical Appraisal (Half-day)**

Domain A2

Learning Objectives:
- Explain the meaning of evidenced-based practice and importance of effective critical appraisal
- Recognise the different types of scientific literature
- Discuss the strengths and weakness of a study
- Compose a strategy for reading and evaluating a scientific paper.

**Introduction to Patient and Public Involvement in Research (Half-day)**

Domain D3

This FREE workshop is for people who are new to the active involvement of patients and public in research. There will be an emphasis on the practical aspects of how to involve patients and the public in your research.

These are some of the topics we will cover:
- What is patient and public involvement all about?
- Develop involvement activities in a meaningful manner
- Challenges and how to overcome them
- Resources: where to find help and support

The workshop provides an excellent opportunity to discuss involvement, engagement and co-production with actively involved patients.

**How to write the PPI section of a grant form (Half-day)**

Domain C3/D3

This FREE workshop is for people who are new to the active involvement of patients and public in research. There will be an emphasis on how to involve patients and public in your research and where to include PPI in your grant form.

These are some of the topics we will cover:
- What are the basic principles of PPI?
- Understanding what large funders PPI expectations are
- How you can plan PPI activities for your research project

The workshop provides an excellent opportunity to discuss involvement, engagement and co-production with actively involved patients.

**Poster Design and Presenting Skills Workshop (Half-day)**

Domain D2

Whatever your role in research we are often required to present our work that can be in a variety of formats including posters at a conference or delivering a formal presentation.

This workshop is in two parts:
- Designing a Poster
  This session will familiarise you with the basic rules of poster design, including the use of pictures and words and white space. You will examine the features of good and bad poster design.
- Developing & Delivering an Effective Presentation
  This session will provide you with an understanding of how to make slides clear and visually appealing. The workshop will cover the basic rules of giving/delivering a clear, effective and informative presentation and will cover how to deal with questions and challenging members of the audience.
IT Services Courses

The following courses are a selection of those offered by IT Services. For a full list of available courses please refer to the IT Services webpage.

Each course carries 1 credit

How to Book

For details on how to book these courses, please refer to the IT Services web page; www.gla.ac.uk/myglasgow/it/training

Please ensure that you always apply for a credit by completing a Skills Credit Application Form and supplying evidence of attendance (SEOA) to the Graduate School. Evidence can be for example, a certificate or a copy of the class register.

Introduction to Access
RDF Domain: A1.3; A1.7; C2.2
Pre-requisites: Familiarity with computing and the Windows environment.
On successful completion of this course participants will be able to:
• Create databases, tables, forms and reports
• Specify field properties
• Use Query-By-Example and Access Wizards
Maximum Number: 18
(SEOA)

Introduction to Excel
RDF Domain: A1.3; A1.7; C2.2
Pre-requisites: Thorough familiarity with Windows.
On successful completion of this course participants will be able to:
• Define, format and manipulate spreadsheets
• Print spreadsheets
• Build and revise formulae (manually and using functions)
Maximum Number: 18
(SEOA)

Effective Presentations with PowerPoint
RDF Domain: D 2.2
Pre-requisites: Familiarity with computing, and with Microsoft Windows
On successful completion of this course participants will be able to:
• Create simple text presentations, use templates
• Incorporate pictures or graphs into presentations
• Produce audience handouts and speakers' notes
• Create on-screen video presentations
Maximum Number: 18
(SEOA)

Excel: Graphs and Charts
RDF Domain: A1.3; A1.7; C2.2
Pre-requisites: Familiarity with Windows and Excel basics
On successful completion of this course participants will be able to:
• Create and edit charts
Maximum Number: 18
(SEOA)

Excel: Datalists, Pivot Tables and More
RDF Domain: A1.3, A1.7, C2.2
Pre-requisites: Familiarity with Windows and Excel basics
On successful completion of this course participants will be able to:
• Define a data list and use filtering to extract data
• Create pivot tables to manipulate data
• Construct and revise formulae to analyse data list information
Maximum Number: 18
(SEOA)

PowerPoint: Multimedia and Special Effects
RDF Domain: D 2.2
Pre-requisites: Familiarity with PowerPoint
On successful completion of this course participants will be able to:
• Include video and sound clips in on-screen presentations
• Write up PowerPoint slides as a word document
• Publish PowerPoint slides on the World Wide Web
Maximum Number: 18
(SEOA)

Introduction to SPSS
RDF Domain: A1.2
Pre-requisites: Knowledge of statistical procedures and basic computer skills
On successful completion of this course participants will be able to:
• Understand the variety of interfaces, data and command files
• Use graphical representation of data
(SEOA)

Using Word to prepare your Thesis
RDF Domain: A1
Target Group: Years 2 and beyond
Description: Duration: 2 Half-days
Prerequisites: Sound working knowledge of Word
Objectives:
On successful completion of this course, participants will be able to:
• Create and use templates, styles and Autotext
• Create and edit footnotes, page headers and footers
• Insert and manipulate graphics
• Use captions on table and figures
• Combine all chapters into one document
• Create a table of contents/figures
• Create a suitable version of a thesis for electronic deposit
(SEOA)
Additional Skills Training Activities

Credits can also be obtained from a range of activities not covered by the courses listed in this brochure.

The list below gives examples but is not exhaustive. Complete a Skills Credit Application Form and clearly state in which of the RDF skill domains you gained training. Then email evidence that you have undertaken the training to the Graduate School and request that the credit be added to your training record.

email: mvls-gradschool@glasgow.ac.uk

<table>
<thead>
<tr>
<th>Training</th>
<th>Researcher Development Skill Domain</th>
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</thead>
<tbody>
<tr>
<td>Co-ordinating / Convening a Seminar Series, Workshop or Conference</td>
<td>D1.2, C3.1 - 3.3, B3.1 - 3.5</td>
</tr>
<tr>
<td>Co-ordinating / Convening a Conference or Workshop</td>
<td></td>
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<tr>
<td>Co-ordinating / Convening a Seminar series</td>
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<tr>
<td>Conferences</td>
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<tr>
<td>Conference - attendance</td>
<td>B3.4</td>
</tr>
<tr>
<td>Conference - oral presentation</td>
<td>B3.4, D2.1, D2.2</td>
</tr>
<tr>
<td>Conference - poster presentation</td>
<td>B3.4, D2.1, D2.2</td>
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<tr>
<td>Conference - preparation of paper for inclusion in conference publication</td>
<td>D2.1 - 3</td>
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<tr>
<td>Institute/School Seminar</td>
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<tr>
<td>Giving Institute/School Seminar - per presentation</td>
<td>B3.4, D2.1, D2.2</td>
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<tr>
<td>External Seminar</td>
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<tr>
<td>Presentation at an External Seminar - per presentation</td>
<td>B3.4, D2.1, D2.2</td>
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<tr>
<td>International Training Workshops</td>
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<tr>
<td>Attendance at international training workshop</td>
<td>B3.2, B3.3, D3.6</td>
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<tr>
<td>Research Council Training Course</td>
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<tr>
<td>Research council training course - per day</td>
<td>A, B, C, D</td>
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<tr>
<td>Journals</td>
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<tr>
<td>Writing a paper for submission to a Journal - per paper</td>
<td>C1.6, D2.1 - 3</td>
</tr>
<tr>
<td>Writing an article for a non-scientific publication</td>
<td>D2.1 - 3, D3.2</td>
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<td><strong>Research Group Journal Club</strong></td>
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<td>Journal club presentation</td>
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<tr>
<td><strong>Staff / Student Committees</strong></td>
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<tr>
<td>Being a postgraduate representative on University committee</td>
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<tr>
<td><strong>Teaching / Demonstrating</strong></td>
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<tr>
<td>Laboratory demonstrating (1 credit per year)</td>
<td></td>
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<tr>
<td>Facilitating PBL sessions (1 credit per year)</td>
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<tr>
<td><strong>Public Engagement Activities</strong></td>
<td></td>
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<tr>
<td>Ambassador role eg. STEM Ambassador, NCCPE Ambassador etc.</td>
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<tr>
<td>Presentation eg. at Cafe Scientifique, public lecture or talk in school</td>
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<tr>
<td>Participation in PE activity designed and organised by someone else eg. schools outreach, science festival</td>
<td></td>
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<tr>
<td>Design/organisation of own PE activity</td>
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<tr>
<td>PE via conventional/social media eg newspaper article, TV/radio interview, blogging, facebook twitter etc.</td>
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</tr>
<tr>
<td>Participation in PE scheme eg. I’m a scientist, get me out of here, Bright Club, Fame Lab</td>
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<tr>
<td><strong>Student Union Roles</strong></td>
<td></td>
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<tr>
<td>Club and society office</td>
<td></td>
</tr>
</tbody>
</table>

A2.3, D2.1 - 3  
B3.4, D1.6, D2.1  
D3.1  
D3.1  
D1.5 D2.2  
D2.1 D2.2  
D1.5 D3.2  
D1.2 D1.3 D3.2  
D1.6 D2.1 D2.2  
D2.6 D2.1 D2.2  
B3.4, D1.2, D1.6, D2.1
University of Glasgow Careers Service Courses

The following courses are offered by the Careers Service.

How to Book

All courses provided as part of the Research and Development Training Programme can be booked online via MyCampus unless otherwise stated in the course description.

1. Search to enrol for courses using MyCampus (under Self Service - Student Centre / Enrollment / 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, RSDA6006 (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 then select the courses from the table view and then click on ‘Enrol’ to complete enrolment on the course/workshop.

You will receive an automated email within 24 hours, confirming that you have booked a place on this course. Course venues will be entered onto MyCampus but may be subject to change between the point of booking and the date of the course. You will receive an automated reminder, on the Friday prior to the event, letting you know the venue of the course.

Each course carries 1 credit
Please ensure that you always apply for a credit by completing a Skills Credit Application Form and supplying evidence of attendance (SEOA) to the Graduate School. Evidence can be for example, a certificate or a copy of the class register.

Reviewing Your Career
Course Code: RSDB 6036
RDF Domain: B1.4-1.6, B3.1-3.3
Speaker: Mrs Katrina Gardner, Careers Service
Target Group: PhD students, MSc(R) Students and Early Career Researchers
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, and to be aware of the resources available to support you.
(SEOA)

Job Hunting and Successful Applications
Course Code: RSDB 6034
RDF Domain: B1.4-1.6, B3.1-3.4
Speaker: Mrs Katrina Gardner, Careers Service
Target Group: PhD students, MSc(R) Students and Early Career Researchers
Description: Postgraduate research develops a huge range of skills and experience 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, Cover 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.
(SEOA)
Performing Well in Job Interviews
Course Code: RSDB 6399
RDF Domain: B1.4-1.6, B3.1-3.3
Speaker: Mrs Katrina Gardner, Careers Service
Target Group: PhD students, MSc(R) Students and early Career Researchers
Description: Job interviews can be very daunting experiences and it is natural to feel anxious. Doing as much preparation as possible can help you keep those interview nerves under control 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.

The Careers Service offers a full service to all postgraduate researchers and early career researchers. They can help you with your career planning, whether you aim to progress your career in academia or are considering moving into one of the many other careers open to you. Equally, they can help you if you just can’t make up your mind on which route to take. And they can support you in finding the right job, from looking for opportunities through to making applications and going for interviews.

Careers Advisers work closely with MVLS staff and students delivering workshops to students at all levels across the College and embedding employability. Careers advisers are responsible for the following:

Medicine and Dentistry - Fiona Stubbs
Veterinary, postgraduate research students and research staff – Katrina Gardner
Life Sciences – Archie Roy

The Careers Service is centrally located in the Fraser Building, Hillhead Street off University Avenue and is open Monday to Friday 9am – 5pm during term times please see Careers Service website for opening times during the summer vacation at www.glasgow.ac.uk/services/careers/ (SEOA)
Employee and Organisational Development Courses

Courses offered by Employee and Organisational Development are not available to postgraduate students, only to Research Staff. Courses available are listed on the website at:
www.glasgow.ac.uk/services/humanresources/employeeandorganisationaldevelopment

How to Book

For details on how to book these courses, please refer to the Employee and Organisational Development web page:
www.gla.ac.uk/myglasgow/humanresources/employeeandorganisationaldevelopment/

Important: Please note that if you have registered for one of the courses and should you either fail to attend or make a last minute cancellation, you will be liable for the payment of a cancellation fee.
Other training opportunities and useful contacts

**English Language Courses**
Students whose first language is not English can improve their English language skills by attending courses run by the ‘English for Academic Study’ Unit which is part of the University’s Language Centre. The Unit offers a range of courses, including language support for registered, international students.

This programme is called English and Study Skills (ESS); classes are offered free of charge to students who have successfully completed a Pre-entry or Pre-sessional course, and also to students who are paying full overseas tuition fees. EU students will be asked to pay a small fee. Students can register for these classes at the EFL Unit office in the Hetherington Building. Further details are available on their web site at [www.glasgow.ac.uk/services/languagecentre](http://www.glasgow.ac.uk/services/languagecentre) or you may contact them at the following address:

**English for Academic Study**  
Hetherington Building  
Bute Gardens  
Phone: +44 (0)141 330 6521

**Stem Ambassadors**
The STEM Ambassadors scheme is another way in which graduate students can become involved in promoting science to school pupils and in the wider community. Ambassadors are trained andvetted before going into schools to help teachers promote science in a stimulating and exciting way. Getting involved with this programme is an ideal way of developing your communication skills and building confidence. Typical projects include:

- Clyde in the Classroom
- Junior Engineer for Britain – K’NEX Challenge
- Young Engineer for Britain Competition
- Careers Scotland MakeIt Roadshow
- Crest Awards
- National Science Week
- Community Science Fairs
- School Requests

Further information and application forms are available on the web at: [http://urlm.co.uk/www.stemscotland.com](http://urlm.co.uk/www.stemscotland.com)

**Glasgow Science Festival**
[www.glasgowssciencefestival.org.uk/events/sciencefestival/getinvolved](http://www.glasgowssciencefestival.org.uk/events/sciencefestival/getinvolved)

Also see page 20

**Biotechnology Young Entrepreneurs Scheme (BIOTECH YES)**
This is a national competition, organised by the BBSRC.
Teams benefit from entrepreneurial awareness training and present their plans for hypothetical businesses to real entrepreneurs, financiers and industrialists.

So far, over 2000 postgraduate and postdoctoral researchers have benefited from the mentoring, practical workshops and advice from this competition.

The competition is supported by a large number of companies and co-organised by BBSRC and UNIEI.

NERC Public engagement training
Are you a NERC-funded student or do we fund your scientific research? If so, you are eligible for free training to develop your science communication and public engagement skills. This is a great way to learn how to promote your research findings and ideas to different audiences.

Managing your training

**Researcher Development Log**
All postgraduate research students are required to maintain a Researcher Development Log as part of their training programme. The form is included in this brochure and is available for download in Word format from the Graduate School website at [www.gla.ac.uk/colleges/mvls/graduateschool/currentstudents/postgraduateresearch/pgstudentforms/](http://www.gla.ac.uk/colleges/mvls/graduateschool/currentstudents/postgraduateresearch/pgstudentforms/)

Your Researcher Development Log should be used to record the training courses attended and other skills training activities undertaken along with the respective skills domains for each course or activity as detailed in Appendix 1. The Researcher Development Log will form part of the Progress Review and must be submitted in conjunction with your Progress Review Form and your Scientific Report for review by your assessment panel.

**Meetings with supervisors**
Contact with your supervisor(s) will often be on a daily basis. However, you should hold regular, more formal meetings with your supervisor(s) to discuss progress and the results obtained so far and to plan the next stage of your research. These meetings should also include a discussion of your skills training needs and how the skills are to be acquired. The Researcher Development Log can be used as the basis for discussions about skills training with your supervisor(s). Initially, supervisory meetings should take place weekly or (at least) once a fortnight. As your studies progress, you and your supervisor(s) may decide to hold these more formal meetings slightly less frequently if the work appears to be progressing well.

Sometimes these meetings can be quite long because there may be a lot to discuss. It is recommended, therefore, that you take notes on the discussion. It is also helpful for both you and your supervisor(s) if a record is made of any agreed actions that need to be undertaken. It is good practice to send a copy of these notes to your supervisor(s) so that there are no misunderstandings about what has been agreed. Updating your Personal Development Plan after these meetings is advised.

**Recording your professional development**
The Researcher Development Statement (RDS) is endorsed by University of Glasgow as well as by national organisations and funding bodies. It sets out the knowledge, behaviours and attributes of effective and highly skilled researchers. The RDS is structured into four domains, as in the diagram below. 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. A detailed explanation of each area can be found in Appendix 1.

**Research Student Skills and Career Development Training Needs Analysis Template**
[www.gla.ac.uk/colleges/mvls/graduateschool/currentstudents/postgraduateresearch/pgannualreviewprocess/](http://www.gla.ac.uk/colleges/mvls/graduateschool/currentstudents/postgraduateresearch/pgannualreviewprocess/)

See over
## Research Student Skills and Career Development Training Needs Analysis Template

### Domain A – Knowledge and Intellectual Abilities (Knowledge Base)

<table>
<thead>
<tr>
<th>Subject Knowledge</th>
<th>Current Skill Level</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>Low Med High</td>
</tr>
<tr>
<td>Subjective domain: The sub-themed headings below may not be relevant for all students; these are designed to stimulate your thinking about your development within these generic skills training areas. Please read in conjunction with the Vita-Researcher Development Framework document, available from the graduate school web site. We recognise that not all of these questions/areas are relevant to all students. These are intended to stimulate your thinking about your training and are not prescriptive.</td>
<td></td>
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<tr>
<td></td>
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<tr>
<td>This area concerns your knowledge base of your subject, from theoretical to practical, and covers your ability to both use and acquire knowledge. Consider your skills honestly and objectively under the following broad headings:</td>
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<tr>
<td>Research Industries/School</td>
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<td></td>
</tr>
<tr>
<td>Full name, in capital letters</td>
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<tr>
<td>Date of Completion of Form</td>
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</tbody>
</table>

At the start of their research degree, PGR students should undertake a 'Training Needs Analysis' and develop a training plan. Current skills levels should be assessed to indicate gaps – a current skill level of 5 indicates you are confident in that area; research students should examine the following areas/questions and give an honest appraisal of their skills in each area. Development needs should then be rated by priority as low (not needed immediately), medium (needed this year), or high (needed in next few months); this stage should take place in consultation with your supervisor team. Details of training completed and planned should be included into your Researcher Development Log.

The sub-themed headings below may not be relevant for all students; these are designed to stimulate your thinking about your development within these generic skills training areas. Please read in conjunction with the Vita-Researcher Development Framework document, available from the graduate school web site. We recognise that not all of these questions/areas are relevant to all students. These are intended to stimulate your thinking about your training and are not prescriptive.

### Domain B – Personal Effectiveness

Here, you should examine your skills in areas relating to personal qualities and self-management skills that underpin any successful career. How would you rate your ability in the following broad areas?

<table>
<thead>
<tr>
<th>How would you rate your ability in the following broad areas?</th>
<th>Current Skill Level</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>Low Med High</td>
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<tr>
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<tr>
<td>Subjective domain: Here, you should examine your skills in areas relating to personal qualities and self-management skills that underpin any successful career. How would you rate your ability in the following broad areas?</td>
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<tr>
<td>Self-confidence/self-reliance/responsibility</td>
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<tr>
<td>Priority setting, time-management</td>
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<tr>
<td>Networking skills</td>
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<tr>
<td>Understands standards of good research practice in the institution and/or research area</td>
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<tr>
<td>Makes time to reflect on practice and experience</td>
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<tr>
<td>Demonstrates self-awareness and the ability to identify own development needs</td>
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<tr>
<td>Appreciates the need for and shows commitment to continuing professional development</td>
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</tbody>
</table>

### Domain C – Research Governance and Organisation

Here, you should examine your skills in areas relating to personal qualities and self-management skills that underpin any successful career. How would you rate your ability in the following broad areas?

<table>
<thead>
<tr>
<th>How would you rate your ability in the following broad areas?</th>
<th>Current Skill Level</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>Low Med High</td>
</tr>
<tr>
<td>Subjective domain: The sub-themed headings below may not be relevant for all students; these are designed to stimulate your thinking about your development within these generic skills training areas. Please read in conjunction with the Vita-Researcher Development Framework document, available from the graduate school web site. We recognise that not all of these questions/areas are relevant to all students. These are intended to stimulate your thinking about your training and are not prescriptive.</td>
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<tr>
<td>Understand relevant health and safety issues and demonstrates responsible working practices?</td>
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</tr>
<tr>
<td>Understand and apply the relevant codes of conduct and guidelines for the ethical conduct of research?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate awareness of issues relating to the rights of other researchers, of research subjects, and of others who may be affected by the research?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have a basic understanding of legal requirements surrounding research - e.g., Data Protection Act, Freedom of Information Act, Equality Act, and equivalent legislation in other parts of the UK?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the concept of attribution and applies it consistently and fairly to appropriately recognise contributions and co-authorship; seeks advice on local codes of conduct?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand and adheres to the rules and regulations concerning academic malpractice in the institution in which based and of professional body and funder if appropriate?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are you aware of how own research aligns with the research strategy of the institution and strategic focus of the research area?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you apply effective project management through the setting of research goals, intermediate milestones, and prioritisation of activities?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the processes for funding and evaluation of research?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understand the basic principles of financial management?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have some commercial awareness?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Domain D – Engagement, Influence, and Impact

Here, you should examine your skills in areas relating to personal qualities and self-management skills that underpin any successful career. How would you rate your ability in the following broad areas?

<table>
<thead>
<tr>
<th>How would you rate your ability in the following broad areas?</th>
<th>Current Skill Level</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td>Low Med High</td>
</tr>
<tr>
<td>Subjective domain: The sub-themed headings below may not be relevant for all students; these are designed to stimulate your thinking about your development within these generic skills training areas. Please read in conjunction with the Vita-Researcher Development Framework document, available from the graduate school web site. We recognise that not all of these questions/areas are relevant to all students. These are intended to stimulate your thinking about your training and are not prescriptive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjective domain: Here, you should examine your skills in areas relating to personal qualities and self-management skills that underpin any successful career. How would you rate your ability in the following broad areas?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effectively supports the learning of others when involved in teaching, mentoring, demonstrating, or other research activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognises the importance of mentorship and receiving mentoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognises implications of own research for real life contexts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the concept of research impact and can apply this to their research by identifying relevant communities of research users, the mechanisms necessary to engage with them, and the means to evidence any impacts generated.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands equality and diversity requirements of institution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constructs coherent arguments and articulates ideas clearly to a range of audiences, formally and informally, through a variety of techniques</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Develops skills in a range of communication means - such as face-to-face interaction, using interactive technologies, and/or textual and visual media</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uses audio-visual aids effectively in presentations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the processes of publication and academic exploitation of research results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participates in research meetings (seminars, workshops, conferences, etc.); has a developing awareness of the ways research influences/interacts with teaching</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understands the process of commercial exploitation of research results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Learns of the value to academia of establishing relationships in business/commercial contexts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shows a broad understanding of the context in which own research takes place, at the national and international level</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Do you intend/have you explored possibilities for Graduate Teaching Assistant roles?

**Subject-specific skills training:**

Elements of subject-specific training will be compulsory for different programs (e.g., ‘Introduction to the Omics’ for CMVLS studentships; subject-specific tutorial sessions for BBSRC cohorts, etc.). These should be noted below.

You need to discuss with your supervisor what subject-specific skills training you require and identify sources for this training. This may include skills training elements offered by CMVLS, training courses elsewhere in the University of external courses, conferences, workshops or study visits. These additional training elements should be detailed below, with an approximate indication of when you will undertake these.

---

[42]
You should regularly update this log to record when and what type of training you have undertaken. It is expected that you will have recorded training and/or practical experience in each of the four areas of the RDS by the time you complete your studies.

<table>
<thead>
<tr>
<th>RDS Domain</th>
<th>Training/professional development activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Domain A: Knowledge and intellectual abilities</strong></td>
<td>Please list any training courses undertaken in this area  &lt;br&gt; Please list any practical experience undertaken in this area and comment on how it has helped you develop specific skills in this domain (see Appendix 1)</td>
</tr>
<tr>
<td>This domain relates to the knowledge and intellectual abilities needed to be able to carry out excellent research.</td>
<td></td>
</tr>
<tr>
<td><strong>Domain B: Personal effectiveness</strong></td>
<td>Please list any training courses undertaken in this area  &lt;br&gt; Please list any practical experience undertaken in this area and comment on how it has helped you develop specific skills in this domain (see Appendix 1)</td>
</tr>
<tr>
<td>This domain contains the personal qualities, career and self-management skills required to take ownership for and engage in professional development.</td>
<td></td>
</tr>
<tr>
<td><strong>Domain C: Research governance and organisation</strong></td>
<td>Please list any training courses undertaken in this area  &lt;br&gt; Please list any practical experience undertaken in this area and comment on how it has helped you develop specific skills in this domain (see Appendix 1)</td>
</tr>
<tr>
<td>This domain relates to the knowledge of the standards, requirements and professional conduct that are needed for the effective management of research.</td>
<td></td>
</tr>
<tr>
<td><strong>Domain D: Engagement, influence and impact</strong></td>
<td>Please list any training courses undertaken in this area  &lt;br&gt; Please list any practical experience undertaken in this area and comment on how it has helped you develop specific skills in this domain (see Appendix 1)</td>
</tr>
<tr>
<td>This domain relates to the knowledge, understanding and skills needed to engage with, influence and impact on the academic, social, cultural, economic and broader context.</td>
<td></td>
</tr>
</tbody>
</table>

**Signature:** ..................................................  **Date:** ..........................................................
# Appendix 1

## Domain A: Knowledge and intellectual abilities

This domain relates to the knowledge and intellectual abilities needed to be able to carry out excellent research.

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Sub-domain summary</th>
</tr>
</thead>
</table>
| **1. Knowledge base** | Knowledge of:  
  - The area of research, the advances within it and its relationships with other research areas  
  - The methods and experimental techniques appropriate for research design  
  - Sources of information, bibliographic software and other information technologies  
  - Literacy and numeracy skills and language abilities appropriate for research  
  
  **Behaviour:**  
  - Makes original contributions to knowledge  
  - Identifies, applies and develops methods and experimental techniques appropriate for research projects  
  - Conducts effective and comprehensive information searches  
  - Records, manages and handles information/data using appropriate bibliographic software and other information Technologies |
| 1. Subject knowledge |  
  - theoretical knowledge  |
| 2. Research methods – practical application |  
  - research areas  |
| 3. Research methods – theoretical knowledge |  
  - methods and experimental techniques appropriate for research design  |
| 4. Information seeking |  
  - Sources of information, bibliographic software and other information technologies  |
| 5. Information literacy and management |  
  - Literacy and numeracy skills and language abilities appropriate for research  |
| 6. Languages |  
  -_behaviour:  
  - Makes original contributions to knowledge  
  - Identifies, applies and develops methods and experimental techniques appropriate for research projects  
  - Conducts effective and comprehensive information searches  
  - Records, manages and handles information/data using appropriate bibliographic software and other information Technologies  |
| 7. Academic literacy and numeracy |  
  -_behaviour:  
  - Makes original contributions to knowledge  
  - Identifies, applies and develops methods and experimental techniques appropriate for research projects  
  - Conducts effective and comprehensive information searches  
  - Records, manages and handles information/data using appropriate bibliographic software and other information Technologies  |
| **2. Cognitive abilities** | Behaviour:  
  - Analyses and evaluates findings using appropriate methods  
  - Thinks originally, independently and critically; develops theoretical concepts  
  - Critically synthesises information from diverse sources  
  - Evaluates progress, impact and outcomes of research  
  - Recognises and validates problems; formulates and applies solutions to a range of research problems  
  
  **Attitude:**  
  - Willing to give and receive constructive criticism |
| 1. Analysing |  
  -_behaviour:  
  - Analyses and evaluates findings using appropriate methods  
  - Thinks originally, independently and critically; develops theoretical concepts  
  - Critically synthesises information from diverse sources  
  - Evaluates progress, impact and outcomes of research  
  - Recognises and validates problems; formulates and applies solutions to a range of research problems  
  
  **Attitude:**  
  - Willing to give and receive constructive criticism |
| 2. Synthesising |  
  -_behaviour:  
  - Analyses and evaluates findings using appropriate methods  
  - Thinks originally, independently and critically; develops theoretical concepts  
  - Critically synthesises information from diverse sources  
  - Evaluates progress, impact and outcomes of research  
  - Recognises and validates problems; formulates and applies solutions to a range of research problems  
  
  **Attitude:**  
  - Willing to give and receive constructive criticism |
| 3. Critical thinking |  
  -_behaviour:  
  - Analyses and evaluates findings using appropriate methods  
  - Thinks originally, independently and critically; develops theoretical concepts  
  - Critically synthesises information from diverse sources  
  - Evaluates progress, impact and outcomes of research  
  - Recognises and validates problems; formulates and applies solutions to a range of research problems  
  
  **Attitude:**  
  - Willing to give and receive constructive criticism |
| 4. Evaluating |  
  -_behaviour:  
  - Analyses and evaluates findings using appropriate methods  
  - Thinks originally, independently and critically; develops theoretical concepts  
  - Critically synthesises information from diverse sources  
  - Evaluates progress, impact and outcomes of research  
  - Recognises and validates problems; formulates and applies solutions to a range of research problems  
  
  **Attitude:**  
  - Willing to give and receive constructive criticism |
| 5. Problem solving |  
  -_behaviour:  
  - Analyses and evaluates findings using appropriate methods  
  - Thinks originally, independently and critically; develops theoretical concepts  
  - Critically synthesises information from diverse sources  
  - Evaluates progress, impact and outcomes of research  
  - Recognises and validates problems; formulates and applies solutions to a range of research problems  
  
  **Attitude:**  
  - Willing to give and receive constructive criticism |
| **3. Creativity** | Behaviour:  
  - Develops new ways of working; has novel ideas and realises their potential  
  - Identifies new trends; creates new opportunities  
  - Develops convincing and persuasive arguments to defend research  
  - Takes intellectual risks; challenges the status quo  
  
  **Attitude:**  
  - Takes a creative, imaginative and inquiring approach to research  
  - Is open to new sources of ideas |
| 1. Inquiring mind |  
  -_behaviour:  
  - Develops new ways of working; has novel ideas and realises their potential  
  - Identifies new trends; creates new opportunities  
  - Develops convincing and persuasive arguments to defend research  
  - Takes intellectual risks; challenges the status quo  
  
  **Attitude:**  
  - Takes a creative, imaginative and inquiring approach to research  
  - Is open to new sources of ideas |
| 2. Intellectual insight |  
  -_behaviour:  
  - Develops new ways of working; has novel ideas and realises their potential  
  - Identifies new trends; creates new opportunities  
  - Develops convincing and persuasive arguments to defend research  
  - Takes intellectual risks; challenges the status quo  
  
  **Attitude:**  
  - Takes a creative, imaginative and inquiring approach to research  
  - Is open to new sources of ideas |
| 3. Innovation |  
  -_behaviour:  
  - Develops new ways of working; has novel ideas and realises their potential  
  - Identifies new trends; creates new opportunities  
  - Develops convincing and persuasive arguments to defend research  
  - Takes intellectual risks; challenges the status quo  
  
  **Attitude:**  
  - Takes a creative, imaginative and inquiring approach to research  
  - Is open to new sources of ideas |
| 4. Argument construction |  
  -_behaviour:  
  - Develops new ways of working; has novel ideas and realises their potential  
  - Identifies new trends; creates new opportunities  
  - Develops convincing and persuasive arguments to defend research  
  - Takes intellectual risks; challenges the status quo  
  
  **Attitude:**  
  - Takes a creative, imaginative and inquiring approach to research  
  - Is open to new sources of ideas |
| 5. Intellectual risk |  
  -_behaviour:  
  - Develops new ways of working; has novel ideas and realises their potential  
  - Identifies new trends; creates new opportunities  
  - Develops convincing and persuasive arguments to defend research  
  - Takes intellectual risks; challenges the status quo  
  
  **Attitude:**  
  - Takes a creative, imaginative and inquiring approach to research  
  - Is open to new sources of ideas |
<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Sub-domain summary</th>
<th>JSS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Personal qualities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Enthusiasm</td>
<td>Attitude: Approaches research with enthusiasm, passion and confidence</td>
<td></td>
</tr>
<tr>
<td>2. Perseverance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Integrity</td>
<td>Is resilient and perseveres in the face of obstacles</td>
<td>B3</td>
</tr>
<tr>
<td>4. Self-confidence</td>
<td></td>
<td>D5</td>
</tr>
<tr>
<td>5. Self-reflection</td>
<td>Is self-reflective; seeks ways to improve performance and strives for research excellence</td>
<td>D6</td>
</tr>
<tr>
<td>6. Responsibility</td>
<td>Is pro-active, independent, self-reliant and takes responsibility for self and others</td>
<td>D7*</td>
</tr>
<tr>
<td></td>
<td>Shows integrity</td>
<td></td>
</tr>
<tr>
<td><strong>2. Self-management</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Preparation and prioritisation</td>
<td>Behaviour: Anticipates and responds to directions and trends in research</td>
<td></td>
</tr>
<tr>
<td>2. Commitment to research</td>
<td>Plans, prioritises and conducts research in proactive way</td>
<td></td>
</tr>
<tr>
<td>3. Time management</td>
<td>Delivers research projects and results on time and effectively</td>
<td></td>
</tr>
<tr>
<td>4. Responsiveness to change</td>
<td>Develops awareness of, and helps to achieve, work-life balance for self and colleagues</td>
<td></td>
</tr>
<tr>
<td>5. Work-life balance</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Attitude: Has a strategic approach to research</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Has focus, commitment and ambition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is flexible and responsive to change</td>
<td></td>
</tr>
<tr>
<td><strong>3. Professional and career development</strong></td>
<td>Knowledge of: Career and employment opportunities inside and outside academia</td>
<td></td>
</tr>
<tr>
<td>1. Career management</td>
<td>Behaviour: Takes ownership of and manages professional development</td>
<td></td>
</tr>
<tr>
<td>2. Continuing professional development</td>
<td>Shows commitment to continuing professional development and enhancing employability</td>
<td></td>
</tr>
<tr>
<td>3. Responsiveness to opportunities</td>
<td>Maintains and develops relevant skills set and experience in preparation for a wide range of opportunities within and outside academia</td>
<td></td>
</tr>
<tr>
<td>4. Networking</td>
<td>Actively networks for professional and career purposes and seeks to enhance research reputation and esteem</td>
<td></td>
</tr>
<tr>
<td>5. Reputation and esteem</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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## Domain C: Research governance and organisation

This domain relates to the knowledge of the standards, requirements and professional conduct that are needed for the effective management of research.

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Sub-domain summary</th>
</tr>
</thead>
</table>
| **1. Professional conduct** | Knowledge of:  
- Health and safety  
- Ethics and principles and sustainability  
- Legal requirements  
- IPR and copyright  
- Respect and confidentiality  
- Attribution and co-authorship  
- Appropriate practice  

B2  
B4  

Behaviour:  
- Respects, acknowledges and attributes the contribution of others  
- Seeks to protect, where appropriate, the intellectual assets arising from research and to maximise the wider value of research findings  
- Acts with professional integrity in all aspects of research governance  
- Uses institutional/organisational resources responsibly and appropriately  
- Seeks ways of working in a sustainable manner  

Attitude:  
- Respects, upholds and meets professional standards and requirements  

**2. Research management** | Knowledge of:  
- The contribution of research to the health of disciplines and institutional missions  
- Project management tools and techniques  

C1  

Behaviour:  
- Applies appropriate project management tools and techniques  
- Sets goals and plans and manages resources to deliver results  
- Effectively assesses and manages risks  

**3. Finance, funding and resources** | Knowledge of:  
- The requirement for research income generation and financial management  
- Mechanisms for funding, the range of funding sources and the processes for making applications  
- Local administrative systems, reporting procedures and infrastructure processes  

B5  

Behaviour:  
- Responsibly manages finances, resources and infrastructures related to research  

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### Domain D: Engagement, influence and impact
This domain relates to the knowledge, understanding and skills needed to engage with, influence and impact on the academic, social, cultural, economic and broader context.

<table>
<thead>
<tr>
<th>Sub-domain</th>
<th>Sub-domain summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Working with others</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 1. Collegiality | **Behaviour:** Actively works in an inclusive, respectful and constructive way with colleagues, stakeholders and research users Recognises and acknowledges the contribution of others and own part in team success Builds relationships in academic and commercial contexts; approachable and interacts constructively with others; manages expectations and resolves conflict Supervises, mentors and develops the potential of less experienced researchers and colleagues through support and advice Leads, motivates and influences where appropriate; persuades through listening and convincing discussion Builds and sustains collaborative relationships and works pro-actively to create and develop knowledge with a range of stakeholders, including researchers, funders and users of research | E5  
F2  
F3 |
| 2. Team working | | |
| 3. People management | | |
| 4. Supervision | | |
| 5. Mentoring | | |
| 6. Influence and leadership | | |
| 7. Collaboration | | |
| 8. Equality and diversity | | |
| **2. Communication and dissemination** | | |
| 1. Communication methods | **Knowledge of:** Appropriate communication and dissemination mechanisms for different audiences The importance of engaging in the processes of publication and dissemination of research results and impacts | E2 |
| 2. Communication media | | |
| 3. Publication | | |
| **3. Engagement and impact** | | |
| 1. Teaching | **Knowledge of:** Global, organisational, cultural, economic, and environmental contexts, and the wider impact of research The social and ethical implications of research, and public attitudes to these issues The range of mechanisms to support knowledge transfer and maximise the impact of research in academic, economic and societal contexts | B1  
B7  
E4 |
| 2. Public engagement | | |
| 3. Enterprise | | |
| 4. Policy | | |
| 5. Society and culture | | |
| 6. Global citizenship | | |
| **Attitude:** | | |
| **Behaviour:** | | |
| Engages with and shares research through research-informed and student-focused teaching Contributes to increasing public awareness, engagement and understanding of research and associated impacts Identifies innovative trends, ideas and applications; is enterprising and enterprising within and beyond academia Works collaboratively with all stakeholders to create, develop and exchange research knowledge to influence and benefit policy development, society and the economy; seeks new outlets and promotes the application of research in innovative ways Appreciates and works with diversity and difference in research and education | | |
| **Attitude:** | | |
| Values the contribution of research to teaching and teaching to research Recognises the importance of accountability of research with regard to social and economic impacts, internationalisation and global Citizenship | | |

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