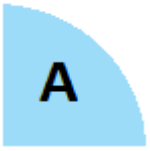
Centre for Academic Leadership and Development

Research Staff Workshop Programme 2016 – 2017

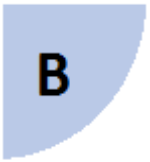
The Research Futures Staff workshop programme has been designed to align with the Researcher Development Framework (RDF). The RDF can be used to plan your training throughout your career; with your PI and/or line manager, you can use it to discuss the areas you want to improve on, as well as identifying at which you excel. There are four domains within the RDF: each domain contains 3 sub-domains, which in turn are comprised of 63 characteristics. These characteristics are valuable skills and knowledge that will support researcher careers going forward. *The full RDF can be seen on the last page of this document.*

Each Research Futures workshop is mapped to a domain of the RDF, and is suited to a particular stage of a doctoral journey. In this guide, the Domain that the workshop fits within is noted by an icon, you can identify them using this key:



Knowledge and Intellectual Abilities

Knowledge base e.g. research methods, information literacy
Cognitive abilities e.g. critical thinking, evaluating, analyzing
Creativity e.g. innovation, argument construction

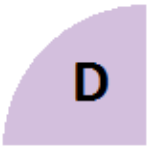


Personal Effectiveness

Personal qualities e.g. integrity, self-reflection, responsibility
Self-management e.g. preparation, time management
Professional and career development e.g. networking, reputation

Research Governance and Organisation

Professional conduct e.g. ethics, health and safety, intellectual property
Research management e.g. project planning, risk management
Finance, funding and resources e.g. funding generation, infrastructure



Engagement, influence and impact

Working with others e.g. collaboration, equality and diversity
Communication and dissemination e.g. publication, communication media
Engagement and impact e.g. teaching, enterprise, policy

Use the table of contents to click through to a workshop for more details. Workshops may be added throughout the year, please check our booking system (PDMS) for the most up-to-date details.

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Contents

Our facilitators **3**

Publishing Research **4**

1: A Strategy for Publishing

2: Preparing a Document for Publication, Proofreading and Referencing

3: Citation and Impact

Project Management **4**

Introduction to Project Management

Project Management - Intermediate

Supervision **5**

Supervising Doctoral Students

Supervising Masters and Undergraduate Projects

Creating the seven secrets of highly successful research students

Career Management **6**

1: Careers within academia *(to be confirmed)*

2: Careers beyond Academia

Enterprising Researcher Summer School (all research students and staff) **7**

1: Introduction to Technology Commercialization

2: Impact and Employability Skills

3: Building and Developing Teams

4: Structuring Technology Projects

5: Financial Literacy for Beginners

6: Budgets and Venture Finance

7: Introduction to Intellectual Property

8: Innovation and Entrepreneurship

Other workshops **8**

Increasing Research Impact

Writing Research Proposals

Leadership in a Research Environment

Writing Research for Publication

Getting the most out of your PDR

The Researcher Development Framework **11**

Our facilitators

External facilitators include…

- **Anthony Haynes, Frontinus**

Anthony Haynes is a founding director of Frontinus, a communications firm specialising in supporting those in engineering, particularly with bids, presentations, papers, reports, and publications.

- **Dr Fraser Robertson, Fistral**

Dr Fraser Robertson has been involved in large-scale projects for over 15 years all over the world and now trains and mentors others in project management across the UK and Europe.

- **Hugh Kearns, ThinkWell Ltd**

Hugh Kearns is a leading practitioner and researcher in cognitive behavioural coaching, with a fifteen year history of publishing books on the subject as well as offering training across the world in performing to high standards.

- **Dr Steve Hutchinson, Hutchinson Training & Development**

Founder and Director, Steve Hutchinson provides facilitation, coaching, workshops and consulting which all focus on the needs of the individual and thereby help organisations to grow, change and improve.

- **Dr Jo Young, Scientific Editing Company**

Jo Young founded the Scientific Editing Company in 2010 and has since been delivering professional skills training workshops around the UK and Europe to the research community on scientific communication, social media, scientific editing and data visualisation.

- **Dr Kevin Parker, KKi Associates Ltd**

Kevin has worked with technology-based start-ups and SMEs since 1994, specialising in spin-outs from Scottish Universities. He provides extensive business training for companies, start-ups, universities and research institutes, and is a visiting lecturer at the University of Edinburgh.

Internal facilitators for Research Futures workshops come from across the University, including staff from RES, Heritage and Information Governance, Information Services, the Centre for Academic Leadership and Development, MACS and SoSS.

Publishing Research

1: A Strategy for Publishing

D

This first session will help participants to gain an understanding of the various stages in developing a research paper for publication. This workshop will cover such issues as:

- Why publish?
- Selecting journals.
- Editorial decisions: criteria and their implications.
- Contracts and legal aspects.
- Dos and don'ts.
- Resources for taking it further.

3hrs Facilitator: Anthony Haynes, Frontinus

2: Preparing a Document for Publication, Proofreading and Referencing

D

This second session will help participants gain an understanding of the various stages involved in developing a research paper for publication. In particular, it will cover:

- Tailoring work for a target journal by analysing the journal's policies and back copies?
- The role of style guidelines and referencing styles.
- How to make the most of the peer review process.
- How to structure and present a paper.

The emphasis of the workshop is that simply doing good research is not enough: your research needs to be strong, but it also needs to be tailored and presented appropriately for publication.

3hrs Facilitator: Anthony Haynes, Frontinus

3: Citation and Impact

D

This third session will focus on how to maximise the visibility of your research and the impact that it makes. The session will focus on:

- The role of peer-reviewed literature.
- The role of grey literature.
- Metrics including citation indices and the impact factor.
- Developing a publication strategy.

3hrs Facilitator: Anthony Haynes, Frontinus

Project Management

Introduction to Project Management

C

An introduction to the process of managing projects and the tools to assist in planning and tracking progress. This course is intended to be immediately applicable to planning and managing academic and research projects as well as commercial projects. It covers the theory and principles of project management within the context of the Project Management Institute. During this 1-day course participants will:

- Learn the basics of the project planning process and receive a set of checklists and guidelines that you can use immediately on any project.
- Appreciate the fundamental principles of a well-led and well directed project, such as identifying and scheduling tasks, activities, milestones and understanding and managing stakeholders.

- Be aware of the critical factors that will influence whether a project will be successful or not, including identifying and managing risk.
- Use practical, group-based exercises to reinforce and enhance the skills learned.
- Create work breakdown structures, network diagrams, critical path analysis, Gantt charts and other techniques that ensure robust project control.

7hrs Facilitator: Dr Fraser Robertson, Fistral

Project Management - Intermediate

C

A more in-depth and hands-on experience of Project Management, where delegates practice and integrate previous project management training and techniques. This event uses applied learning to further embed project management skills and knowledge in reference to the Project Management Institute. *You need to participate in the introductory Project Management workshop (for students or staff) before you can attend this session.*
During this 1-day course, participants will:

- Follow a case study from conception to full project initiation and implementation using practical, group-based exercises to apply learning to 'real world' situations and requests.
- Practice more advanced work breakdown structures, network diagrams, critical path and PERT analysis, Gantt charts and other techniques that ensure robust project control.
- Demonstrate planning a project from initiation to completion.
- Manage and adapt the plan to meet challenging requests in terms of scope creep, resource change, change requests, and cost/budget challenges.
- Understand the impact of human "utility" on project planning and management.
- Learn techniques to identify risks, quantitatively and qualitatively assess probability and impact and use a 5-point assessment matrix to categorise risk and undertake a proactive, detailed risk analysis of the case study, following a rigorous and robust risk management process.
- Be able to calculate and justify EMV and project contingency.

7hrs Facilitator: Dr Fraser Robertson, Fistral

Supervision

Supervising Doctoral Students

D

A doctorate is a journey towards academic independence. Doctoral students start and finish at different points, gaining different skills along the way; doctoral supervisors place different emphases on different points of the journey and have different interpretations of what supervision means. This workshop does not take a rules-and-regulations approach to supervision or attempt to instruct supervisors in one particular way of managing the complex supervisory relationship. Participants will consider the doctoral journey and the challenges that students face along the way and explore what support they might offer at which points. The workshop will introduce a number of ideas, case studies and conceptual frameworks to help participants' thinking and practice in this area.

3hrs Facilitator: Dr Rob Daley, ALD, Heriot-Watt University

Supervising Masters and Undergraduate Projects

D

This session is designed to help staff who is new to supervising undergraduate projects and masters dissertations. It will explore issues of good practice for those involved in supervising and supporting students undertaking masters and undergraduate research projects.
It will cover the common problems that arise during research projects and will identify some sources of support for both the students and the supervisor.

3hrs Facilitator: Dr Rob Daley, ALD, Heriot-Watt University

Creating the seven secrets of highly successful research students

B

You know what your research students should be doing, but it just doesn't seem to be happening. Despite your best efforts to set up good habits for your students, it does not work. Why is this, and what can you do to make completing a research degree easier for your students and for you? This course gives you practical strategies to deal with common problems such as:

- supervisor/student relations,
- dealing with writer's block,
- attitude (or lack thereof!) in relation to the degree – it's not a Nobel prize,
- getting your student to seek help when they are stuck,
- the student who never has enough time,
- treating the degree like a job,
- keeping on going when the going gets tough.

3hrs Facilitator: Hugh Kearns, ThinkWell Ltd

Career Management

1: Careers within academia *(to be confirmed)*

B

This session will help participants gain an understanding of the variety of careers that are available to research graduates within higher education. This will include a focus on career development, job application processes, as well as preparing specific CVs and applications.

3hrs Facilitator: Dr Rob Daley, ALD, Heriot-Watt University
and Dr Vicky Ingram, ALD, Heriot-Watt University

2: Careers beyond Academia

B

Not everyone chooses to climb the academic ladder and throughout your PhD you will have developed a number of key skills that can be utilised in a variety of other positions. This workshop aims to highlight a number of careers outside academia and to explore what particular options might be compatible to you. It includes overviews of different job types, case studies of researchers who have moved into different careers and provide resources to help you explore your options. You will also undertake exercises to help you reflect on your own skills and experience, to enable you to communicate these effectively in written applications and interview.

3hrs Facilitator: Dr Jo Young, Scientific Editing Company

Enterprising Researcher Summer School (all research students and staff)

The Enterprising Researcher Summer School comprises a series of workshops available to PhD students, research and academic staff. Participants can attend the full series or book for individual workshops that may be of interest to them.

1: Introduction to Technology Commercialization

D

Everyone is talking about Knowledge Exchange or commercialisation, so how come we aren't all doing it and are all rich? What goes wrong? This interactive workshop examines typical failure factors in technology commercialisation projects from their inception, development, financing, market studies and market launch. Liberally spiced with anecdotes and quotations from a number of failed projects, the talk attempts to draw some wry and specific lessons from the hard-won experience of the participants.

2.5hrs Facilitator: Dr Kevin Parker, KKi Associates

2: Impact and Employability Skills

D

Whilst 'impact' has been part of the funding landscape for some time now, it is still something that we get a lot of confused (or bemused) enquiries about. This workshop looks at how researchers can draw out the things in their work that make them interesting to the outside world, how they can put those things in context of 'issues and opportunities' in the outside world, and how they can communicate those things simply and directly without 'dumbing down'.
As well as the conceptual framework, the workshop will use several Problem-based learning (PBL) activities to enable delegates to practice the skills of problem-solving, team-working and communication essential to research impact, commercialization, and employability.

7hrs Facilitator: Dr Kevin Parker, KKi Associates

3: Building and Developing Teams

D

This half-day workshop covers the basics of business partnering, recruitment, and team building for scientists and technologists. How do you recruit people, and what does it cost? What agreements do you need before going into business? It will feature work on team roles: Are you a plant or a shaper? Why should you love completer-finishers? What can you do with this knowledge?

3.5hrs Facilitator: Dr Kevin Parker, KKi Associates

4: Structuring Technology Projects

C

Want to build a new research centre? Start a company and launch a new product? Build a new Scottish Parliament? Or just want to know about Gantt charts because they've asked for one in your grant application or end-of-year review? This workshop examines the key skills and tools required for projects to be delivered on-time and on-budget.

3.5hrs Facilitator: Dr Kevin Parker, KKi Associates

5: Financial Literacy for Beginners

C

We will introduce basic business finance and accounts, and signpost situations when we absolutely must use professional accountants. At the end of the workshop you will be able to:

- understand what profit/loss statements and balance sheets are,
- tell how quickly a company pays its creditors and gets paid by its debtors,
- understand the difference between capital and revenue items,

- understand the difference between full and marginal costing,
- understand the difference between overheads and direct costs,
- know the meaning of accruals, depreciation, creditors, reserves, and a whole lot of other accounting terms.

4hrs Facilitator: Dr Kevin Parker, KKi Associates

6: Budgets and Venture Finance

A

This workshop explains how to understand the bit on 'Dragon's Den' when they say 'I'm offering 37.5% of my company for £500,000'. Where those numbers come from and how they are calculated. For any maths-phobics, the level of arithmetic required is somewhere around 10 year old primary classes - no long division!
We will look at the principles behind doing simple budgets and show how to use a simple Excel template to produce an operational budget. We will discuss the different types of costs (fixed, variable, etc) that go into budgets and how they are classified. We will then turn from operational budgets to capital budgets, using discounted cash flow methods, and show you how to calculate them using Microsoft Excel. You will become familiar with terms such as net present value, internal rate of return, risk-free rate and risk premium.

4hrs Facilitator: Dr Kevin Parker, KKi Associates

7: Introduction to Intellectual Property

C

This workshop looks at intellectual property (IP) from the perspective of the inventor or technologist. It addresses basic questions such as:

- Why do we have intellectual property?
- What types of IP are there?
- How much do they cost?
- Who owns it?

3hrs Facilitator: Dr Kevin Parker, KKi Associates

8: Innovation and Entrepreneurship

A

This workshop is for those researchers who have an idea that they don't know what to do with, for those who want to start a business but don't know how, for scientists who are interested in new careers paths or for those who just want to 'make a difference' in the 'real world. The workshop will look at the features that make an invention of commercial interest, different ways of making money, how to do market research and how to count the money. The trainer can point to 'real people who have become real millionaires' in the years after attending one.

7hrs Facilitator: Dr Kevin Parker, KKi Associates

Other workshops

Increasing Research Impact

D

Impact is currently the word on every funding agency's lips. Economic pressures on government mean that public-funded research increasingly has to demonstrate value for money and impact. But what does 'impact' mean? What do the funders actually want? Should demonstration of impact be more important than pure intellectual curiosity? How could you maximize the impact of your work?

During the session we will:

- Consider the rationale and purpose for examining the overall 'impact' of research.
- Engage with the notion of how impact can be maximised and evidenced.
- Discuss how, when designing research, we might build in impact in a wider range of area.

7hrs Facilitator: Dr Steve Hutchinson, Hutchinson Training & Development

Writing Research Proposals

D

The topics covered during this session include:

- Characteristics of successful research proposals.
- Stages of the application process.
- Sources of funding.
- Funding Bodies' rules and guidance.
- How applications are judged.
- Common pitfalls of writing research proposals.

7hrs Facilitator: Dr Rob Daley, ALD, Heriot-Watt University

Leadership in a Research Environment

D

Do you want to develop your knowledge and skills around leadership and team working? Maybe you see yourself running your own research group and want to explore how leaders do what they do. Maybe you want to get a feel for how you can help your current team to "work" more effectively with each other. Maybe you'd just like to share some ideas with other participants about what Leadership is all about. If so, this could be the course for you. During the course, we will:

- Experimentally practice leadership and team working.
- Examine the core values and beliefs that define us as colleagues and leaders.
- Develop strategies to help with our relationships with supervisors, peers, support staff and others.
- Consider strategies for our own personal development.

7hrs Facilitator: Dr Steve Hutchinson, Hutchinson Training & Development

Writing Research for Publication

A

A researcher's publication record is one of their main identifiers of their standing in their field. However, many researchers find getting published a challenge. The three challenges to be explored: include:

- Writing *Technically* - We'll examine what makes for good writing. We'll consider word choice, paragraph and article structure and readability.
- Writing *Habitually* - We'll consider how to get down to the writing and build good writing habits.
- Writing *Strategically* - We'll consider what makes a good paper, what editors look for and how to target the appropriate journals and publishing outlets.

7hrs Facilitator: Dr Steve Hutchinson, Hutchinson Training & Development

Getting the most out of your PDR

Principle 5 of the UK Concordat to Support the Career Development of Researchers outlines that individual researchers share the responsibility for and need to proactively engage in their own personal and career development, and lifelong learning.

This session will help you do just that, by giving you the thinking space and the tools to get the most out of your Performance and Development Review (PDR). The focus will be on the Personal Development element of the PDR.

Participants will consider:

- Why the long game is important - what they want out of their career, and what they bring to it
- Why an academic career is far from the only option and why their (academic) line manager may not be the best guide
- How to identify other options, including potential job roles and how the current climate impacts on opportunities
- Filling the CV gap, including: routes into academia – what employers are looking for and what to prioritise
- By the end of the session you will have begun to shape the discussion you want to have with your manager when you meet for your PDR.

7hrs

Facilitator: Dr Rob Daley, ALD, Heriot-Watt University
and Tina Donnelly, Heriot-Watt University

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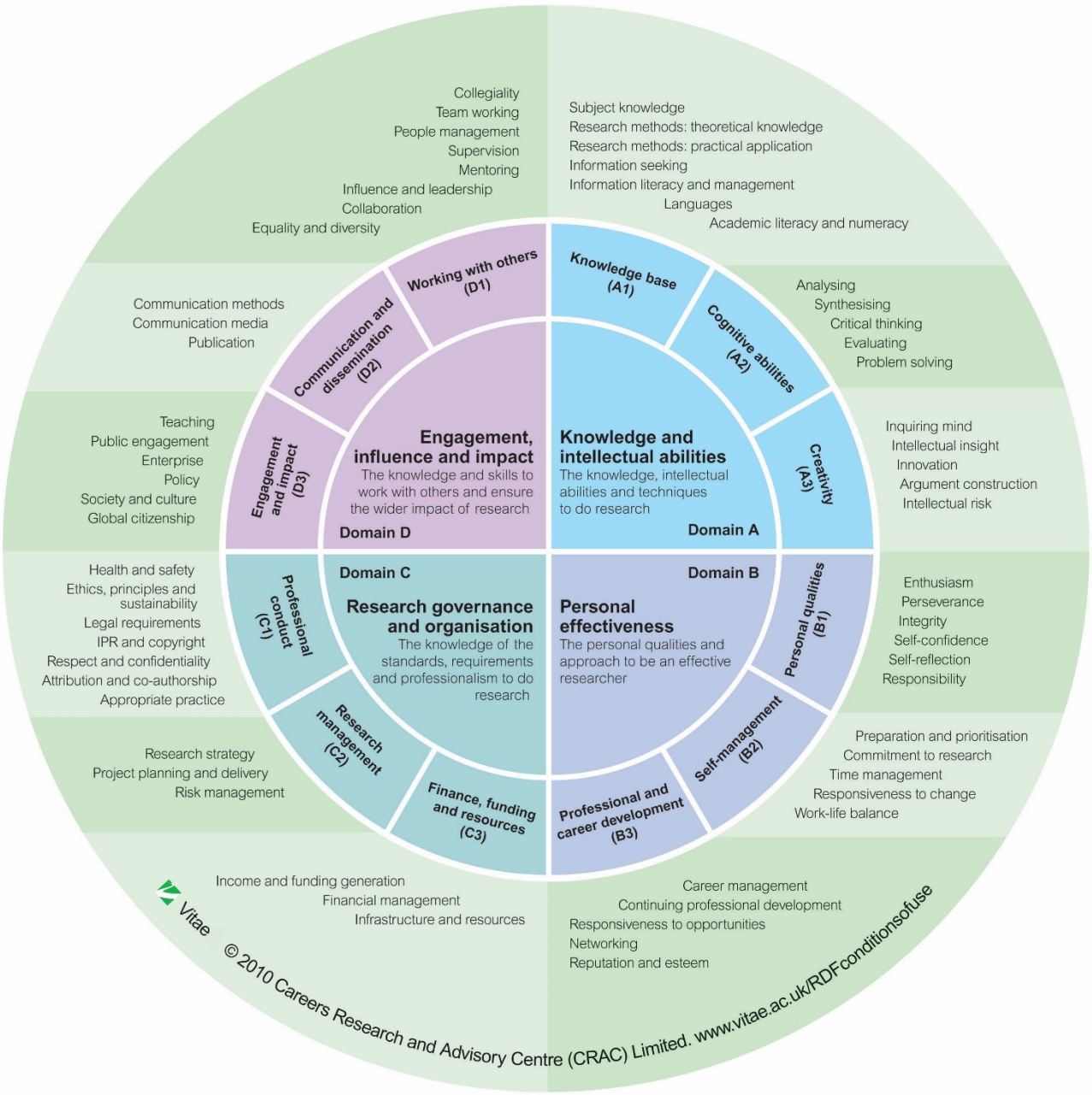
The Researcher Development Framework



Use your Heriot-Watt University email address to access RDF materials as well as high quality resources and online advice, whether you're starting a doctorate, supervising a doctoral student, managing your research career, or mentoring your research staff.

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