INTRODUCTION

Welcome to De Montfort University and to the Researcher Development Programme. As a student studying for the award of MPhil or PhD at De Montfort University you are required to undertake training courses which are aimed to help you develop a wide array of key skills. The purpose of this handbook is to provide a source of information about the requirements of the Researcher Development Programme you need to follow.

As a new student you will be given full support to help you undertake and complete your research degree effectively and efficiently. We will help you to identify your individual training needs through completion of a Training Needs Analysis early on in your research. From the beginning of your research career with us we will give you advice on how to get started on your investigations, introduce you to the concepts of what a research degree entails and ensure that you are fully aware of all the services and facilities that are available to you.

During the course of your time here, this broad introduction will be expanded further to provide you with instruction on the various methodologies, skills and techniques you will need to use. Finally, we will help you prepare for your final examination and your career after the completion of your degree.

Throughout your period of registration we will provide you with the opportunity to complete a personal development planning record which will allow you to reflect on your academic progress and identify skills for further development.

We hope you find the courses offered stimulating, enjoyable and useful. The Graduate School Office is fully committed to providing support to help you get the best out of your research degree experience and wish you every success with your research.

Research Training and Office Manager
Graduate School Office

Research Training: The Background

Since the publication of the QAA Code of Practice for the Assurance of Academic Quality and Standards in Higher Education, Section 1: Postgraduate Research Programmes (September 2004), increasing recognition has been given to the need to support students with appropriate training during the course of their research. Research Councils and other funding organisations request that all research students are given access to training in specialist and generic skills and taught how to apply appropriate research methodologies. Research Councils consider the development of these skills as a vital part of the research experience and produced a Joint Statement of Skills Training requirements in 2002 (refer to Appendix A).

In 2003 the Research Councils formed the UK GRAD programme, a body to help co-ordinate research training on a national basis and to provide residential training courses for Research Council funded students.

In 2008 Vitae, a new organisation to champion the professional and career development of doctoral researchers and research staff, was launched. Vitae will build on previous work by the UK GRAD programme and UKHERD and is supported by Research Councils UK (RCUK), managed by The Career Development Organisation (CRAC) and delivered in partnership with regional Hubs. De Montfort University is a member of the Midlands Hub Steering Group.

In 2010 Vitae extended the general principles of research training to all professional aspects of a researcher's career leading to the proposal of the Researcher Development Framework (RDF). Phase 1 of the RDF corresponds with those aspects pertinent to research students and during the forthcoming year we will ensure that the research training provided at DMU matches the goals set by the RDF.

Further information relevant to your experience as a research student can be found on the Vitae web-site at http://www.vitae.ac.uk/ and for the Midlands Hub at http://www.vitae.ac.uk/policy-practice/1746/Midlands-Hub.html.

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RESEARCHER DEVELOPMENT PROGRAMME

As part of your research award you are required to attend a number of generic and discipline specific courses throughout your time at the University.

The generic and discipline specific courses are organised centrally by the Graduate School Office.

The training you are required to undertake will be defined upon completion of your Training Needs Analysis (TNA) document; refer to page 4.

The Researcher Development Programme Handbook, schedules and exemption forms can be accessed at.
http://www.dmu.ac.uk/research/graduate-school/current-research-students/researcher-development-programme/researcher-development-programme.aspx

Course Schedules

Training courses are delivered from September to June each year with course schedules being produced twice each academic year.

Schedules are posted to your correspondence address in July and December each year and can also be viewed through your Blackboard account or via the website link above.

Course Bookings

Places on each course are limited, so booking is essential. You can check availability of places and book to attend a course by email at rtp@dmu.ac.uk or by phone on 0116 250 6242.

You will receive email confirmation of your booking and an email reminder will be sent to you approximately one week prior to the course taking place. If you cannot attend a course for any reason it is vital you inform the Graduate School Office as early as possible so your place can be offered to a fellow student.

Please note bookings are not required for courses which are delivered online via Blackboard. If a course can be studied online this will be indicated in the relevant course description.

Attendance and Training Attendance Records

Attendance is compulsory for the entire duration of each course, failure to complete to the satisfaction of the presenter will be deemed as non-completion.

An attendance register will be taken at each course; please ensure you sign the register each time you attend a course.

Individual training attendance records which provide an overview of the courses you have completed and those still outstanding will be posted twice a year to all students in July and December.

In addition you can also view your individual record in the course section of myDMU by login to the site at http://my.dmu.ac.uk. Attendance records are normally updated within two weeks of a course being attended or an online course being completed.

Attendance certificates will be issued upon completion of your MPhil or PhD.

Course Completion

This handbook provides full details of each of the courses offered. You are required to undertake all compulsory courses unless an exemption request has been approved; refer to page 3 for further details on the exemption process.

Each course is designed to be relevant to the various stages of the research process. All compulsory courses are assigned to a group, which indicates whether the course is suitable for students at the beginning of their research or whether it should be taken in later years.

An exemption request must be approved before the date the course is expected to be completed.

The following table indicates when you are expected to complete courses within each group.

Course Group	**Expected Completion For Full-Time Students**	**Expected Completion For Part-Time Students**
Group A	Within 6 months of enrolment	Within 6 months of enrolment
Group B	Within 12 months of enrolment	Within 24 months of enrolment
Group C	Within 24 months of enrolment	Within 48 months of enrolment
Group D	Within 36 months of enrolment or before completion	Within 72 months of enrolment or before completion
Optional	Throughout period of registration – if desired, not compulsory.	Throughout period of registration – if desired, not compulsory.

We are aware part-time students have many commitments outside of their research degree.

If you are studying part-time you are given a longer time period to complete the compulsory elements of the Researcher Development Programme, in line with the expected timeframe for completion of your research degree.

The Graduate School Office takes non-attendance very seriously and failure to attend courses booked, without prior notification, may affect your registration on the programme.

Special Requirements

If you have any particular needs you would like the administrators or presenters to be aware of please notify us in advance of the course.

Contact the Graduate School Office if you require:

- building or room access information,
- information on resources and equipment available to you,
- materials in an alternative format.

Students Who Register For The Award of MPhil Only

If studying for the degree of MPhil only, you are not required to complete some of the Group 'C' courses.

Students Previously Awarded The Degree of MPhil

If you have been awarded the degree of MPhil, from an institution other than De Montfort University, within the 5 years prior to starting your PhD, you are not required to complete the generic Group 'B' courses.

It may be possible to apply for exemption from the relevant discipline specific course in Group 'B'.

If your MPhil degree was awarded by De Montfort University you will only be required to complete courses you have not already studied.

Requirements For Students Where English Is Not The First Language

If you are a student studying in the UK at De Montfort University and English is not your first language you are **required** to attend an English language initial assessment session at the Leicester City campus **within 6 months** of commencing your research.

Students who have passed the necessary IELTS/ TOEFL course are also required to attend the initial assessment.

The initial assessment requires you to undertake a written and spoken test to identify your level of English to determine:

- if the level of English is of a satisfactory standard for undertaking study at MPhil or PhD level, in which case you will not be required to attend any further sessions,
- if the level of English requires further assistance, in which case you will be advised how many classes you must attend to attain the required level.

The course duration is highly dependent on the needs of individual students.

Courses are held exclusively for research students and are targeted specifically at your needs.

Please refer to the course description on page 9 for further information on the areas covered.

If you have been awarded the degree of MA, MSc, MBA, you will not be required to attend the English language sessions if the following two conditions are met:

1. the degree was awarded by a UK University within the 5 years prior to your enrolment on a DMU research degree programme,

and

2. your first supervisor confirms in writing, within 6 months of you starting your research degree, that your English is of a sufficient standard to undertake research.

Students Based Overseas

Courses offered through the Researcher Development Programme are not currently compulsory for students who are located overseas.

Completion of the Training Needs Analysis is also optional.

However, students who fall into this category are strongly encouraged to attend these courses whilst visiting the UK.

Students located overseas will be expected to complete the requisite courses when online facilities are available.

PhD by Published Works

Students registered for a PhD by Published Works are exempt from completing the Training Needs Analysis and all elements of the Researcher

Development Programme but can attend any elements of this programme.

Exemptions

You may be eligible to apply for exemption from some of the compulsory courses you are required to complete.

Please refer to the individual course descriptions to see if exemptions will be considered.

Exemption requests will only be considered if one or more of the following criteria can be met:

- the content covered by the course was studied at advanced level as part of a Masters level degree programme; evidence will need to be provided of this in the form of a transcript and a module outline,
- the content has been studied as part of another course at a level deemed suitable for doctoral research; certificates and details of course content will need to be provided as evidence,
- you have previous work or research related skills, which have provided you with sufficient training in the topic covered; exemption requests via this route will require a written statement from both the student and supervisor.

If you would like to apply for an exemption please complete the relevant section in your Training Needs Analysis.

Remember to ensure any supporting documentation is securely attached to the document.

Approval of all exemption requests will be sought from the relevant Faculty Training Assessor and the Research Training Committee.

TRAINING NEEDS ANALYSIS AND PERSONAL DEVELOPMENT PLANNING

Training Needs Analysis (TNA)

As a research student you are expected to take considerable responsibility for managing your research project.

An essential part of this is having an understanding of your strengths; using these to your best advantage; and recognising areas you would like further development.

You are embarking on postgraduate research study not only with academic qualifications, but also with a wide range of skills. These are going to help you to be a successful researcher.

To enable the Graduate School Office to identify a portfolio of training courses you will be required to complete the Training Needs Analysis (TNA) surveys; full-time students are required to complete these within three months of enrolment; and part-time students are required to complete them within six months of enrolment.

The TNA surveys are online resources, and are available in Blackboard (Virtual Learning Environment) under the course code REST9000. Full instructions on how to complete the surveys can be found within the course.

You are strongly encouraged to complete the TNA surveys soon after enrolment. This will help you acknowledge the training courses available to you; discuss a development plan with your supervisor; and come to a joint agreement of a development programme.

Completion of the TNA is currently optional for students undertaking PhD by Published Works and/or who are located overseas. However, we strongly encourage all students to complete the TNA surveys, now they are available as on online resource.

The TNA surveys have been designed to help you:

- reflect on the skills you already have;
- think about the areas you may need to work on;
- learn about training opportunities and support that are available; and,
- plan how and when you are going to develop your skills.

Your annual review will provide an opportunity to reflect on research training skills you have developed and review the areas you s till need to address or identify new development skills.

Personal Development Planning (PDP)

Completion of the TNA is also the beginning of your **Personal Development Planning** (PDP). Although it is not compulsory to undertake PDP we strongly advise you to do so, as we believe it will be of great benefit to you both in your studies and in your future career.

You will be provided with the opportunity to maintain a record of personal progression by completion of PDP.

Students will be able to opt into completion of the PDP at any time during their period of registration. With advice and guidance, PDP will provide you with opportunities to:

- Reflect on your experience
- Formulate your own action plans
- Implement your action plans
- Review your personal, academic and career development

For more information refer to the Focus on Personal Development Planning for Research Students guide or go to myDMU.

Here are the views of two DMU research students:

"I found the training needs analysis extremely useful as it alerted me to resources, as well as issues, I hadn't really considered, such as some of the more long term career planning aims. As a student embarking on perhaps years of study, it was well worth the short time it took to complete. For me, the PDP part will just help me keep a record of my progress and ensure I follow through.

Heather Conboy, Faculty of Art, Design and Humanities

"Personal development planning is widely used in industry to help the individual and the organisation. This system is more about you as an individual, and is an excellent way of getting you into the PDP mindset for your future working life."

Andrew Wallace, Institute for Energy and Sustainable Development

SUMMARY OF COURSES

Below is a list of all courses currently offered as part of the Researcher Development Programme; refer to individual course descriptions for further information about the content of the course and whether exemption requests can be considered.

Compulsory GENERIC Courses For All Students

Students are required to attend all courses listed as compulsory. The table on page 1 identifies when each group must be completed by. Some students are exempt from compulsory courses; refer to page 3.

Course Title and Code	Group
English Language for Academic Research Purposes* (REST7104)	A
Intellectual Property Rights and Ethics (REST7103)	A
Literature Searching (REST7001)	A
Planning and Managing Research (REST7102)	A
Research Student Induction Event (REST7101)	A
Presenting Your Research To An Audience (REST7201)	B
Research Ethics: (Online Resource) (REST7525)	B
Writing Skills (REST7002)	B
Publishing Research Findings (REST7203)	C
Structuring and Completing Your Thesis (REST7301)	C
Preparing For Your Viva (REST7303)	D
Successful CVs, Job Applications and Interviews (REST7302)	D

* Refer to page 2 to see if you need to complete this course.

DISCIPLINE SPECIFIC Courses Allocated To Group B

The following courses are discipline specific and are <u>not</u> compulsory for all students. You are only required to complete the courses allocated to your Faculty.

For completion purposes MOST courses in this section are allocated to Group B, those that are not will have the completion Group identified.

Please refer to the relevant course descriptions for further information.

Faculty of Art, Design and Humanities

Research Methods (REST7701) – Group A

Critical Thinking and Information Management (Online resource) (REST7703) – Group B

Developing Research and Communicating Your Ideas (Online resource) (REST7702) – Group B

Academic Futures (Online resource) (REST7705) <u>optional</u>

Presentation of Abstracts (Online resource) (REST7704) <u>optional</u>

Faculty of Business and Law

Research Methods Training Programme

Advanced Research Methodology (REST7012) – Group B

Research Seminars (REST7070) – *Group D*

Research Days (Workshops/Lectures) (REST7071) – *Group D*

Faculty of Health and Life Sciences

Health & Safety In Laboratories* (REST7015) – Group B

Introduction to Faculty (REST7016) – Group B

Principles of Research in Health and Life Sciences (REST7028) – Group B

Research Ethics Workshop (REST7025) – <u>Optional</u>

Presentation of Research Data and Participation in Analytical Discussion (REST7026) – <u>*Optional*</u>

* This course is only compulsory for students who will be working in a laboratory or similar setting during their research.

Institute of Creative Technologies (IOCT)

Students registered within IOCT will be required to undertake the relevant compulsory training from within the most relevant Faculty.

The Graduate School Office will advise accordingly.

Faculty of Technology

Research Methods (REST7013) – Group B

Researching The Information Society (REST7045) *Optional*

Research Practices in Micro and Nano Sciences and Technologies (REST7045) Optional

Statistics (REST7041) Optional

Typesetting Documents with LaTeX (REST7043) Optional

Compulsory Course For Postgraduates Who Want To Teach

Beginning To Teach In Higher Education (REST7017)

This course is only compulsory for students who are planning to undertake any form of teaching at De Montfort University.

Please note this course **must** be completed before any teaching activities commence. Refer to the course description for further information.

Optional Courses Available To All Students

These courses are not compulsory and are available to all MPhil/PhD research students who wish to attend.

Please refer to the course descriptions for further information.

- Advanced NVivo for Qualitative Data Analysis (REST7518)
- Advanced Presenting Your Research to An Audience (REST7508)
- Create and Manage Large Documents Using Word 2007 (REST7003)
- Effective Presentation Using PowerPoint 2007 (REST7202)
- Finding A Career That Fits You (REST7510)
- Handling Employers' Assessment Days and Selection Tests (REST7512)
- How To Manage Your Career and Improve Your Employability (REST7509)
- Interdisciplinary Research (REST7519)
- Intermediate Quantitative Data Analysis Using SPSS (REST7528)
- Introduction to NVivo for Qualitative Data Analysis (REST7514)
- Introduction to Quantitative Data Analysis Using SPSS (REST7506)
- Library Refresher - Keeping Up To Date (REST7516)
- Managing Data Using Excel 2002 (REST7504)
- Media Training (REST7018)
- Personal Networking For Career Success (REST7511)
- Poster Presentations: Effective Designs (REST7515)
- Qualitative Methods in Health and Social Sciences (REST7505)
- Qualitative Methods: (Online Resource) (REST7526)
- Reference Management (REST7517)
- Taking a Critical Approach To Your Research (REST7521)
- Winning Grant Funding (REST7507)

We are continually enhancing our training course portfolio to meet the training needs of our research students. New courses will be piloted throughout the year and will be advertised to all students via Blackboard and the relevant training schedules.

ADDITIONAL SUPPORT

Writing Development

The Centre for Learning and Study Support (CLaSS) is located on the Ground Floor of Kimberlin Library. Their primary role is to help students develop writing and study skills, enabling them to achieve a confident academic writing voice. To facilitate this, a range of services are offered to support students at every stage in the research process.

Workshops
A series of workshops are available to research students during term-time and cover a variety of topics including:

- Writing a literature review
- Writing clear paragraphs
- Critical thinking
- Writing in an academic style

One-to-one Tutorials
Research students also have the opportunity to book a one-to-one tutorial with an experienced writing/ study tutor who will read a sample of your work and suggest ways you can improve your writing and approach to studying.

Online Resources
We also have a number of online resources which can be accessed via the Ask Gateway website: www.askgateway.dmu.ac.uk. These include our:

- 'Focus On ...' Study Guides – these contain concise, practical advice on a range of writing and study issues,
- Higher Education Academic Toolkit (HEAT) – a resource for students preparing first assignments in Higher Education

CLaSS can be contacted in the following ways:

In person: Student Support Office, Ground Floor, Kimberlin Library

By phone: 0116 257 7042

By email: class@dmu.ac.uk

Visit our webpage: www.library.dmu.ac.uk/link/CLASS

Appointments for Class services can be made in person via Library staff at Kimberlin Library Reception, or via our Just Ask enquiry telephone number on 0116 250 7042

Statistics Advice

The Maths Learning Centre offers advice to research students whose work involves collecting and analysing quantitative (numerical) data.

A 50 minute advice session can be booked with the Maths Learning Centre in the Kimberlin Library if you would like:

- advice on what techniques might be appropriate,
- suggestions for sources to understand how to get the computer to do the calculations,
- explanations of how to do calculations manually if required.

The Maths Learning Centre is not able to:

- advise on the subject of the project,
- do the analysis,
- provide software support or advice,
- proof read.

Sessions can be booked subject to availability.

Contact the Maths Learning Centre on jrobertson@dmu.ac.uk or 0116 250 6432.

Access To Software Packages For RefWorks, NVivo and SPSS

RefWorks is software designed to allow you to input, organise, manage, retrieve and format lists of references (bibliographies). RefWorks is available on the internet via https://refworks.com/refworks2/
For information on how to access RefWorks and links to guides on how to use RefWorks please see the reference management link on the following web page:
http://www.library.dmu.ac.uk/Users/Researchers/

NVivo and SPSS licences are currently centrally funded by the University. To obtain copies of this software you must fill in a form 'application for rights to install a personal copy'. These forms are available in the Graduate School Office or from the Information Technology and Media Services (ITMS) Reception Desk which is located in room 1.6, Gateway House.

Following completion of the form you will be able to obtain a licence code for installing a copy of the relevant software.

Copies of the software CD for NVivo Versions 7 or 8 and SPSS are available from the Graduate School Office. Alternatively NVivo 8 and SPSS can be borrowed from the library upon completion of the 'application for rights to install a personal copy' form available from the ITMS Reception Desk.

Knowledge Sharing Events

The Postgraduate and Research Students Association (PRSA) have introduced informal knowledge sharing events for research students to attend and discuss topics with other research students to share personal experiences, exchange lessons and gain an increased knowledge of the topic being considered in an informal and friendly environment.

Topics have included how to get the best out of supervision and vivas. The typical format of a session will be an introduction presented by one student lasting around half an hour, followed by up to an hour's discussion.

These student led events complement the Researcher Development Programme. However, these sessions are in addition to the compulsory research training courses and do not replace them.

Attendance of these sessions will not provide the necessary skills in the topics discussed for students to be eligible for exemption from compulsory research training courses.

GROUP 'A' GENERIC COURSE DESCRIPTIONS

Courses in this group are compulsory, unless otherwise stated, and must be completed within 6 months of enrolment, irrespective of whether you are registered as a full-time or part-time student.

Courses are held regularly throughout each year and it is recommended you attend as soon after you enrol to fully benefit from the information provided.

To reserve a place on courses in Group 'A' please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk.

English Language for Academic Research Purposes (REST7104)

Course Description:

This course is compulsory for students where English is not their first language and is targeted specifically at individual needs.

The following topics are covered:

- academic writing skills,
- presentation skills,
- general English language skills,
- advice on form filling,
- writing summaries, abstracts and journal articles.

By the end of this course students will be able to understand the writing conventions of a thesis/journal article and produce both genres using appropriate academic style and lexis.

Exemptions
Requests for exemption will be considered. Please refer to page 2.

Intellectual Property Rights and Ethics (REST7103)

Course Description:

This is an introductory course to the concepts of and University regulations concerning intellectual property rights and ethics as they apply to research.

This course will:

- introduce postgraduates to the concept of intellectual property rights (IPR) with discussion on, patents, trademarks, ethics, etc.; special emphasis will be given to copyright when conducting research,
- make postgraduates aware of the University's protocols regarding IPR arising from research and data protection,
- provide an overview of the ethical issues faced in conducting research,
- outline the impact of Data Protection and Freedom of Information Legislation and the management of research records,
- provide an understanding of the need to take account of information legislation in conducting research and know where to find assistance to deal with it.

Exemptions
Requests for exemption will be considered.

Literature Searching (REST7001)

Course Description

Completing a comprehensive literature review is often one of the first tasks for many research students.

There are a great many resources available to you to help you keep up to date and informed on research in your chosen area.

It is recommended you attend this course at the earliest opportunity as it forms an important foundation for your future research.

This course will:

- review how to develop a strategy for undertaking the initial literature search,
- provide you with information on where to access information and secondary sources,
- enable you to find semi-published material and content available through institutional and subject research repositories, including conference papers and theses,
- offer advice on how to remain up to date with the literature throughout the course of your research,

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

- Develop and implement a search strategy using key resources relevant to their discipline
- Identify and use appropriate tools to stay up to date in their discipline

Exemptions
Requests for exemption will be considered.

Planning and Managing Research (REST7102)

Course Description:

Starting a research project, whether your aim is to achieve a PhD or an MPhil degree is a major undertaking for any student.

This course aims to help you through the early stages of the research process, preparing you to successfully determine the direction of your research and plan and manage your project.

This course will:

- establish the differences between doctoral and masters level research,
- look at what makes a good research degree,
- provide assistance in defining your aims and objectives,
- enable you to review your current time management practices and develop new ones,
- assist you in scheduling and timetabling a project effectively,
- examine possible obstacles to achieving your goals and how to reduce or eliminate their impact.

Exemptions
Requests for exemption will be considered.

Research Student Induction Event (REST7101)

Course Description:

This course will provide you with information you need to be aware of at the start of your research.

This is an excellent opportunity to meet students from other areas and to be able to talk to other students in the same situation as you.

Topics covered will include:

- an introduction to the University and the research environment,
- code of practice incorporating research degree regulations and procedures,
- the registration process,
- an introduction to Library facilities for research students,
- the researcher development programme,
- Training Needs Analysis,
- personal development planning,

GROUP ‘A’ DISCIPLINE SPECIFIC DESCRIPTIONS

Courses in this group are compulsory, unless otherwise stated, and must be completed within 6 months of enrolment, irrespective of whether you are registered as a full-time or part-time student.

Courses are held regularly throughout each year and it is recommended you attend as soon after you enrol to fully benefit from the information provided.

To reserve a place on courses in Group ‘A’ please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk.

Faculty of Art, Design and Humanities

Research Methods (Online Resource) (REST7701)

Course Description:

This is a compulsory course delivered online with an additional opportunity to attend an 11 week lecture programme. The lecture programme is part of the Art, Design and Humanities taught postgraduate Research Methods Module. So you will get the opportunity to meet a diverse range of Art, Design and Humanities Post Graduate students.

The online resources cover Art, Design and Humanities (AD & H) Orientation and Research Methods. These resources will provide students with a broad range of materials. The resources begin with an introduction to Faculty and University Faculties, so you will become familiar with School procedures, organisational structures and the roles of a supervisor and a Post Graduate research student.

The academic content will introduce you to the entire research process, including: formulating research questions; sampling (probability and non-probability); measurement (surveys, scaling, qualitative, unobtrusive); research design (experimental and quasi-experimental); data analysis and writing the research paper.

Exemptions

Exemptions based on prior experience and learning will be considered. Students should contact the Faculty to obtain an exemption form and to discuss with their first supervisor.

GROUP 'B' GENERIC COURSE DESCRIPTIONS

The courses in this group are compulsory and must be completed within 12 months of enrolment if you are a full-time student and within 24 months of enrolment if you are a part-time student.

To reserve a place on courses in Group 'B' please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk.

Presenting Your Research To An Audience (REST7201)

Course Description:

You need to demonstrate the value of your research and you want your research to have an impact. You will need to 'sell' your research to:

- get a job,
- get funding for further research,
- convince others to use your findings,
- get others to come and work with you.

This course will help you in preparing to present your research at meetings, seminars and conferences.

By the end of this course you will be:

- aware of the importance of considering your audience,
- aware of the process of effective preparation,
- able to identify what 'not to do' when presenting your research,
- able to identify features of effective spoken communication,
- aware of a range of ways in which you can present your research.

Exemptions
Requests for exemption will be considered. If you are already an experienced teacher/lecturer then you may not need to attend this course.

Research Ethics: (Online Resource) (REST7525)

Course Description:

This online Blackboard course is designed to give you some detailed understanding of research ethics and the role it plays in your studies as a research student.

The key learning objectives are:

- to understand the broad range of topics in research ethics,
- to understand the topics in research ethics specific to your discipline,
- to be able to identify and address the ethical issues specific to your research from inception through to completion.

Exemptions
Requests for exemption will be considered.

Writing Skills (REST7002)

Course Description:

Aimed at first year students, this course will help you overcome many of the barriers to writing effectively, producing reports and ultimately your thesis.

Objectives are to:

- consider different writing styles and approaches,
- identify ways to improve your writing,
- develop your writing style through short writing exercises aimed at the completion of your transfer report and/or thesis.

Exemptions
Requests for exemption will be considered.

GROUP 'B' DISCIPLINE SPECIFIC COURSE DESCRIPTIONS

The courses in this group are compulsory. Compulsory courses must be completed within 12 months of enrolment if you are a full-time student and within 24 months of enrolment if you are a part-time student.

To reserve a place on courses please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk

Faculty of Art, Design and Humanities

Critical Thinking and Information Management (Online Resource) (REST7703)

Course Description:

This is a compulsory course offered to you via online materials. It will develop your skills in information management and critical thinking. You will be analysing short videos and written papers; these examples are presented and discussed by staff and by students at various stages of their PhD. The course will support the development of critical analysis and problem solving skills. This will help you to evaluate materials effectively and will enable you to develop reflective skills. At the end of this course you will be able to prepare a reflective journal that will support the preparation of your research proposal and abstract.

Exemptions

Exemptions based on prior experience and learning will be considered. Students should contact the Faculty to obtain an exemption form and to discuss with their first supervisor.

Developing Research and Communicating Your Ideas (Online Resource) (REST7702)

Course Description:

This compulsory course requires your engagement with online material that will develop your skills of communication; including communicating with different audiences; development of arguments; presentation of information; evaluation of intellectual contexts; ethical requirements of research taken within the Faculty; and self evaluation

Exemptions

Exemptions based on prior experience and learning will be considered. Students should contact the Faculty to obtain and exemption form and to discuss with their first supervisor.

Faculty of Business and Law

Advanced Research Methodology (REST7012)

Course Description:

This COMPULSORY component of the Faculty's Research Methods Training Programme comprises a taught module with two formal assessments. It is undertaken by students at the early stages of their research (year 1).

The module runs for a full semester and students are assessed in relation to both quantitative and qualitative research skills. Students gain some grounding in the use of a range of relevant methods as well as insight to their philosophical implications.

The module introduces students to the paradigmatic nature of social science research, to the epistemological foundations of these paradigms, to the key issues relevant to the alternative approaches and to examples of the styles of research in practice.

- quantitative research paradigms in the social sciences (inc. measurement, validity, reliability, sampling theory, SPSS, etc.)
- qualitative research paradigms in the social sciences (inc. ethnography, grounded theory, participant observation, NVivo, etc.)
- principles of scientific research and methods (inc. objectivity, subjectivity, positivism etc.)
- research ethics , data protection and intellectual property rights

Faculty of Health and Life Sciences

Health and Safety in Laboratories (REST7015)

Course Description:

This course is only COMPULSORY for students who will be working in the laboratory or similar setting during their research.This course will introduce postgraduates to the concepts and up-to-date regulations concerning safe working in laboratories.

By the end of this course you will have gained a sound understanding of the application of Health and Safety in a laboratory environment at DMU, it will give you basic information, sign posting and support to ensure you adhere to DMU policy and rules.

Exemptions
Requests for exemption will be considered.

Introduction to Faculty (REST7016)

Course Description:

This COMPULSORY course will provide an opportunity for you to meet your Head of Research Students, Professor Jannet Wright and to gain an understanding about the procedures of research within the Faculty.

At the end of this session you will:

- be aware of facilities available for research students within the Faculty.
- understand the benefits of attending REST 7026
- have met with other research students from the Faculty of Health and Life Sciences
- have had an opportunity to ask questions

Exemptions
Requests for exemption will NOT normally be considered.

Principles of Research in Health and Life Sciences (REST7028)

Course Description:

This COMPULSORY course will discuss the principle elements of hypothesis-driven research methods, appropriate methods of data gathering and data analysis and the ethical constraints on research in Health and Life Sciences.

At the end of this session you will have had an opportunity to:

- outline your own research to other research students,
- discuss your proposed methodology with other research students,
- exchange information about useful approaches to data collection.

Exemptions
Requests for exemption will be considered.

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Faculty of Technology

Research Methods (REST7013)

Course Description:

The aim of this COMPULSORY course is to prepare graduate students to undertake and fulfil the requirements for master and/or doctoral studies.

You will be required to complete this course before, if applicable, you transfer. Selected topics will include:

General

- how to do research,
- how to theorise,
- carrying out a literature review,
- claims and disclaimers: knowledge, reflexivity and representation in computing and engineering research,
- deductive and inductive thinking,
- common errors made in research,
- defining the research problem,
- the evolution of research methodology,
- writing, presenting and disseminating research,
- the research process,
- on good research: persuasivability and generalisability.

Specific

- abduction? deduction? induction? is there a logic of exploratory data analysis?
- confounding variables and evaluation design
- general statistical concepts

Students will also be required to attend workshops on two or three talks from Active Researchers. Each module will consist of two full days with the appropriate number of lectures/workshops for this time scale. Selected topics will be given as lectures, each of 20-30 minutes duration. Teaching materials for the course will be made available for distance learning via Blackboard.

Each student will be asked to read a published paper and present his/her understanding of it and in particular the articulation of the research question and method of research conducted to obtain the result.

Exemptions
Requests for exemption will be considered.

GROUP 'C' GENERIC COURSE DESCRIPTIONS

Courses in this group are compulsory and must be completed within 24 months of enrolment if you are a full-time student and within 48 months if you are a part-time student.

Courses are held regularly throughout each year.

To reserve a place on courses in Group 'C' please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk unless otherwise indicated.

Publishing Research Findings (REST7203)

Course Description:

This is not a year one course but should be completed towards the end of year two or in year three.

As a researcher you will be expected to publicise your work to a wider audience. You will find that it furthers your own career if you publish as much as possible. On completion of this course you will have an understanding of:

- the criteria for selecting journals appropriate to your needs,
- the procedures for submitting articles to journals,
- the refereeing (peer review) process,
- online resources for guidance with writing research articles,
- conventions for structuring the content of research articles.

You will also have some insight into:

- the necessary skills for writing journal articles,
- how to respond to referees' comments,
- the commercial and political context of journal publishing,
- the informal, unwritten aspect of the publishing process.

Exemptions
Requests for exemption will be considered.

Students studying for the award of MPhil only will receive automatic exemption.

Structuring and Completing Your Thesis (REST7301)

Course Description:

This course will offer guidance on organising, structuring and completing your thesis.

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

- understand the process of completing the thesis,
- produce a timetable for completion of the writing up of your research,
- look at alternative models for thesis.

Exemptions
Requests for exemption will be considered.

GROUP 'D' GENERIC COURSE DESCRIPTIONS

Courses in this group are compulsory and must be completed within 36 months of enrolment if you are a full-time student and within 72 months if you are a part-time student.

Courses are held regularly throughout each year.

To reserve a place on courses in Group 'D' please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk .

Preparing For Your Viva (REST7303)

Course Description:

This course is intended for students who are close to submitting their thesis and will offer guidance on preparing for your viva examination.

At the end of this course you will:

- understand the format and purpose of the viva examination,
- know how to devise a strategy for preparing for the final viva,
- have gained confidence to perform well in your final examination,
- have viewed an example of a simulated viva examination,
- have participated in a role play of a viva,
- have had a chance to discuss your viva concerns with others.

By the end of this course you will be prepared for the viva examination.

Exemptions
Requests for exemption will NOT be considered.

Successful CVs, Job Applications and Interviews (REST7302)

Course Description:

Contributes to the Researcher Development Framework descriptor that a successful researcher at this stage *presents own skills, personal attributes and experiences through effective CVs, applications and interview*.

Knowing how to sell yourself on your CV, on an application form and at interview are essential skills for career success. This participative workshop will help you to understand how recruitment works from the employer's point of view and practice the skills needed to succeed at each stage of the process.

By the end of the course, students will be able to:

- understand the recruitment process and what employers are looking for in CVs, application forms and interviews,
- gather together evidence both from within and outside their studies to demonstrate the skills and qualities required for application success,
- state the main differences between academic and non-academic CVs,
- develop an effective approach to interview preparation,
- prepare for interview questions for a variety of situations,
- state some simple principles for effective non-verbal behaviour

Exemptions
Requests for exemption will be considered

GROUP 'D' DISCIPLINE SPECIFIC COURSE DESCRIPTIONS

Courses in this group are compulsory depending on your discipline. Compulsory courses must be completed within 36 months of enrolment if you are a full-time student and within 72 months of enrolment if you are a part-time student.

To reserve a place on courses please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk.

Faculty of Business and Law

Research Seminars (REST7070)

Course Description:

Research degree students are expected to contribute to the Faculty's research culture through active participation in research student seminars.

These seminars will normally take place during Research Training Days.

As well as attending and contributing to the discussions, towards the end of their investigation all research degree students are also expected to present a formal seminar based on their research, in particular the methods employed.

Exemptions

Requests for exemption will be considered

Research Days (*Workshops/Lectures*) (REST7071)

Course Description:

Research degree days consist of lectures, workshops and seminars which are COMPULSORY and where students are introduced to the range of research being conducted within the Faculty and, in particular, to the research methods used by such projects.

The lectures and workshops provide a means through which students can extend their grasp of research methodology beyond the scope of their own discipline and personal research project.

Research Training Days allow you the opportunity for networking and for the enhancement of a *research culture* within the Faculty: they provide an opportunity for part-time students to meet one another and to meet their full-time counterparts.

Also provide an opportunity for administrative *briefings and updates* to keep supervisors and students informed of national changes and amendments to the DMU regulations.

Exemptions

Requests for exemption will be considered.

COMPULSORY COURSE FOR POSTGRADUATES WHO WANT TO TEACH

This course is ONLY COMPULSORY for students who plan to teach, demonstrate or take tutorials/seminars at De Montfort University and must be completed before teaching activities commence.

Courses are held regularly throughout each year.

For further information on this course and to reserve a place please contact Nila Patel on 0116 257 7626 or by email at nilapatel@dmu.ac.uk.

Beginning To Teach In Higher Education (REST7017)

Course Description:

This course is designed for postgraduates who teach in any discipline. It considers different approaches to learning and learning style with a very practical focus.

Topics covered will include small group teaching, giving presentations and lectures and assessing students' work.

Exemptions
Requests for exemption will be considered

GENERIC OPTIONAL COURSE DESCRIPTIONS

Courses in this group are optional and available to all students during their period of registration.

Courses are held regularly throughout each year.

To reserve a place on these courses please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk unless otherwise indicated.

Advanced NVivo for Qualitative Data Analysis (REST7518)

Course Description:

This is an advanced NVivo course, therefore you will need to have completed the Introduction to NVivo Data Analysis course before booking to attend this course. This course will build on the introductory course and focus on more advanced features.

Advanced Presenting Your Research To An Audience (REST7508)

Course Description:

This course will help students to further develop skills of effective spoken presentation.

Participants will be required to deliver a ten minute presentation to a small group of students and also listen to other student presentations.

Students will watch and review all presentations and provide feedback to individuals on their style of delivery.

By the end of the course participants will have:

- reviewed the skills required for effective presentations,
- delivered a ten minute presentation which will have been video recorded,
- received feedback about their presentation.

Create and Manage Large Documents Using Word 2007 (REST7003)

Course Description:

All students attending this course **must** have prior experience of using Microsoft Word or attended the Word Tables and Word Intermediate courses delivered by IT Skills.

This **advanced intensive course** will focus on how to get the best out of Microsoft Word when producing reports, academic papers or longer documents.

By the end you will be able to:

- create and apply templates,
- use styles effectively to control the appearance of a document,
- know how to outline and plan a document,
- ensure consistency of appearance,
- use a selected range of automated features provided with MS Word,

Effective Presentation Using PowerPoint 2007 (REST7202)

Course Description:

PowerPoint is a commonly used tool to aid and assist you in giving an oral presentation.

This session will cover the following topics:

- issues to consider when designing your presentation,
- how to get the most out of PowerPoint,
- creating a simple presentation,
- designing the layout and applying an appropriate colour scheme,
- adding graphics, sounds and movies to your presentation,
- animation effects.

Finding A Career That Fits You (REST7510)

Course Description:

Contributes to the RDF descriptor that a successful researcher at this stage '*sets realistic and achievable career goals*'.

Only a minority of research students progress into a research career, but the rest have rewarding, fulfilling and challenging careers in a wide variety of fields. In this workshop, you'll generate your own requirements for a career and start to research options that might make a fit. By the end of the course, students will be able to:

- identify factors that will affect career choice, including skills, personality and values,
- have begun to explore how to use these factors to make career choices.

Handling Employers' Assessment Days and Selection Tests (REST7512)

Course Description:

Contributes to the RDF descriptor that a successful researcher at this stage '*begins to establish a career network*.'

This workshop will provide an introduction to a range of selection methods used in the graduate job market. It will explore good practice in assessment centre preparation, performance and review, and provide an opportunity to look at a range of psychometric tests and how to handle them.

By the end of the course, students will be able to:

- explain why employers use assessment days,
- outline a strategy for dealing with assessment successfully,
- list tasks and activities that typically are used within assessment along with ways of dealing with them,
- understand the different types of selection tests and how to do well within them.

How To Manage Your Career and Improve Your Employability (REST7509)

Course Description:

Contributes to the RDF descriptor that a successful researcher at this stage '*Takes ownership for and manages own career progression*' and '*identifies and develops ways to improve employability*'.

Career management is about how you influence the direction and progression of your career. Employability is having the skills, experiences and qualities desired by a variety of employers and opportunities so that you always have options in the labour market. This workshop will help you to develop the career management and employability skills that are needed whatever career path you take after completing your PhD.

By the end of the course, students will be able to:

- describe different approaches to career management,
- explain what 'employability' is and its importance to career development,
- know how to use detailed information on what makes researchers employable,
- identify some practical ways of improving their own employability.

Interdisciplinary Research (REST7519)

Course Description:

This one day course can be studied in attendance or by participation through Second Life and comprises the following:

Introduction

- what is interdisciplinary research and why is it important?
- inter-, multi- or trans- ?
- what is the context for this kind of research?
- examples of successful interdisciplinary research.

Interdisciplinary Research Methods

Managing Interdisciplinary Research

- dealing with supervisors who have different approaches to research,
- overcoming the constraints of a mixed method approach,
- framing appropriate research questions.

Publication and Dissemination

- peer and discipline recognition of research that falls 'in-between' areas,
- publication avenues and possibilities,
- benefiting more than one discipline.

Intermediate Quantitative Data Analysis Using SPSS (REST7528)

Course Description:

Based on the Introduction to Quantitative Data Analysis Using SPSS, this course will explore how to use SPSS to achieve desired analyses when

- you have more than one influencing factors in your research design,
- you have more than two samples collected,
- you explore or quantify associations and course-effective relationships of two factors.

It will also provide guidance on how to interpret and present complicated statistical results from SPSS.

Introduction to NVivo for Qualitative Data Analysis (REST7514)

Course Description:

NVivo is a software package designed to help with the analysis of qualitative data (text and images).

It has become established as the most widely-used computer-aided qualitative data analysis software (CAQDAS) package, much like SPSS has in relation to quantitative data analysis.

NVivo helps with the management and coding of interview data. This introductory course will provide:

- grounding in the research methodologies suitable for CAQDAS
- an introduction to the basics of coding and memoing using NVivo package.

Participants will also have an opportunity to practise using the software in the computer lab through a series of exercises.

Introduction To Quantitative Data Analysis Using SPSS (REST7506)

Course Description:

This course will take you step-by-step, through the decision process that leads to appropriate statistical tests for different types of data, different types of research questions, and different types of hypotheses.

The course is suitable if you collect data using scientific measurements or questionnaires that have closed questions. It will provide:

- considerations of statistics in research design,
- practical information on basic operation of SPSS,
- practising SPSS, with provided data, in achieving descriptive statistical, simple parametric and non-parametric analyses,
- guidance on how to read, interpret and present results produced by SPSS.

Library Refresher – Keeping Up To Date (REST7516)

Course Description:

This course will explore a range of current awareness services for academic content, fast and easy ways of setting up alerts and RSS feeds alongside essential sources to help when writing up.

This course is recommended for students in the second or subsequent years of their research.

Managing Data Using Excel 2007 (REST7504)

Course Description:

Microsoft Excel is a widely used spreadsheet package which gives you the ability to present your results in tabular and graphical format as well as carry out complex analysis.

This is an introductory level course and looks at how to start using Excel including:

- inputting data and information,
- formatting data and text,
- producing tables of information,
- selecting the correct graph to represent your data, creating and modifying graphs,
- performing simple calculations on your data.

Media Training (REST7018)

Course Description:

This is an introductory session on the media and how to attract and handle interviews leading to positive and useful coverage of your research. This session will consider:

- why you should talk to the media,
- the difference between print, broadcast and new media,
- radio interviews and a word about TV.

It will also cover:

- the journalist's agenda,
- the needs of different media,
- how to prepare for a media interview,
- how to interest the media in your story.

By the end of this session you will be able to identify how to pitch material from your research as a potential news item for the media. You will also know how to select the appropriate media to promote your work.

Personal Networking For Career Success (REST7511)

Course Description:

Contributes to the Researcher Development Framework descriptor that a successful researcher at this stage '*begins to establish a career network*'.

Everybody agrees that personal networking, meeting and developing relationships with people, is important to career development. In this workshop you will explore what is meant by networking, how it can help you, the value of your current network, and how to develop it further.

By the end of the course, students will be able to:

- List ways in which personal networking can contribute to research career progression and development
- Evaluate their own career network
- Plan steps to enhance and develop their own career network
- Describe ways of communicating and interacting with people that build rapport

Poster Presentations: Effective Designs (REST7515)

Course Description:

The aim of this course is to help you prepare an effective poster. By the end of this course you will have considered:

- the aims of poster presentations and the contexts within which they are used,
- possible formats and structure for posters,
- effective use of size, font and colour,
- methods of adapting your message to meet the needs of your audience,
- practical factors linked to successful poster presentations.

Students looking to enter the De Montfort University poster competition are recommended to attend this course prior to submission of their poster.

Qualitative Methods in Health and Social Sciences (REST7505)

Course Description:

This session provides a brief introduction to some of the major issues in qualitative research and explains how qualitative approaches can help doctoral research.

Students will deal with theories, methods and findings from the last two centuries and discuss the role of approaches such as grounded theory, discourse analysis, ethomethodology and phenomenology in contemporary research programmes.

This event may be of interest to students in health care, social sciences and those in the physical and life sciences who are studying the human aspects of their field.

Further workshop sessions will be arranged for students who wish to use some aspect of qualitative methodology in their work.

These will explore in more detail some common approaches and will allow students the opportunity to discuss their own work.

Having attended the course, you will be familiar with key traditions of inquiry in qualitative methodology and appreciate the potential contribution of each to your own research project. You should gain a critical understanding of the strengths and weaknesses of particular research methods and an understanding of how these are applied in practical contexts.

Qualitative Methods: (Online Resource) (REST7526)

Course Description:

Qualitative methods are of growing importance in a whole range of disciplines where researchers are seeking to identify the key features of the human social world. They originated in the social sciences, but have taken hold in the health care disciplines and are of interest to those working in design disciplines and computer science too, where researchers are concerned to understand how people use artefacts and technologies.

This online course is accessible via Blackboard and the "Course" provides an outline of a number of approaches to qualitative methodology, with examples and questions to act as an 'aide memoir' that all research students can undertake.

The examples come from a range of disciplines, including health care, management and organisation

studies, as well as design and technology, where these kinds of methods can offer some insight into human affairs. In addition there are some more extended treatments of selected methods, which we hope will grow as additional material becomes available.

The "Course" is designed to give you some detailed understanding of qualitative methodologies and the role they might play in your studies as a research student. It should not simply be viewed as a one-off course to be completed but rather as an ongoing resource which can be drawn upon throughout your time as a registered research student.

Reference Management (REST7517)

Course Description:

Citations and referencing is clearly crucial in the writing up stage of any piece of research. Managing your citations is also critical in the earlier stages of your project in order to avoid duplication of effort, store potentially useful references for later use, to annotate as you read, and retrieve them later. It is therefore recommended you attend this course at the earliest opportunity so that you are able to make the best use of the reference management software.

This course will demonstrate how reference management software can be used to create bibliographies and manage references and enable students to create a library for references using appropriate reference management software. The course will be delivered online via BlackBoard

Winning Grant Funding (REST7507)

Course Description:

When a student completes their degree at De Montfort University, they will need to explore the possibilities of gaining new funding if they wish to pursue research interests.

Wide ranges of funding sources are available and understanding the process involved in obtaining the grants on offer will increase chances of success.

The purpose of this course is:

- to help locate, get information about and know how to approach relevant funding bodies,
- to help gain insights into the way decision-makers assess and evaluate research proposals.

Taking A Critical Approach To Your Research (REST7521)

Course Description:

The Framework for Higher Educational Qualifications in England, Wales and Northern Ireland outlines how critical thinking underpins the process of doctoral study. In particular, the framework states that 'doctoral degrees are awarded for the creation and interpretation, construction and/or exposition of knowledge' (FHEQ, 2008). As such, it is important that our research students become *active* and *confident* participants in the knowledge-creation process. This one-day workshop looks at ways of developing effective critical approaches to research. In detail it covers:

- understanding the context for critical writing at doctoral level
- mapping critical thinking in the scholarly way of others
- developing critical writing practices in your own work
- identifying barriers to writing critically and practical next steps for your own research

All research students are welcome at any stage in the research process, but please note all participants must be prepared to bring along a short piece of their own writing-in-process to use in a small-group activity.

DISCIPLINE SPECIFIC OPTIONAL COURSE DESCRIPTIONS

Courses in this group are optional and available to students studying within the relevant Faculty.

To reserve a place on courses please contact the Graduate School Office on 0116 250 6242 or by email at rtp@dmu.ac.uk.

Faculty of Art, Design and Humanities

Academic Futures (Online Resource) (REST7705)

Course Description:

This optional course is delivered face to face and/or online. This will cover networking, collaboration and future development of doctoral study.

Presentation Abstracts (Online Resource) (REST7704)

Course Description:

This optional course will provide materials on argument construction and articulation of abstracts appropriate to your subject area. The course will also provide you with the opportunity to submit your abstract online for feedback

Faculty of Health and Life Sciences

Presentation of Research Data and Participation in Analytical Discussion (REST7026)

Course Description:

These seminars are arranged to provide research students with the opportunity to present their work to an audience of students and supervisors. The sessions are chaired by the Head of Research Students and there are usually 3-4 presentations in each sessions.

The seminars provide an ideal setting within which students can apply knowledge gained from the generic training course 'Presenting Your Research to an Audience'. The stimulating discussions following each presentation provide opportunities to exchange ideas and learn more about research.

By the end of this session:

- students listening to the presentations will have had the opportunity to hear about the research that their peers are carrying out,
- students listening to the talks will have had the opportunity to ask colleagues questions about their work,
- students presenting their work will have had an opportunity to prepare and present their work,
- students presenting their work with have had an opportunity to respond to questions about their research.

Research Ethics Workshop (REST7025)

Course Description:

This course is delivered approximately two to three times a year and led by experienced members of the Faculty Research Ethics Committee.

Here students have the chance to consider, in the format of case studies, how they might approach a piece of research ethically.

At the end of this session you will:

- understand the ethical requirements of research undertaken within the Faculty,
- understand the process of applying for ethical permission within the Faculty,
- be aware of the ethical issues that can occur in a range of research settings.

Faculty of Technology

Researching the Information Society (REST7045)

Course Description:

The content of this OPTIONAL training course will be agreed with students and will be based on students' needs and interests.

Students will take turns preparing and organising the tutorials but will be supported by the module leader. The student responsible for the week will determine the topic and arrange and make available the preparatory reading. Students will be free to choose from a range of teaching and learning strategies which has the added advantage that students will gain teaching skills.

Indicative content of the module includes:

- Overview of different disciplines and their approach to issues of the information society. These include (but are not limited to):
  - computer sciences
  - information systems
  - philosophy
  - sociology
  - engineering
- Philosophical underpinnings of research. In order to appreciate current research and inform their own approach, students need to develop a sound understanding of the relationship of:
  - ontology
  - epistemology
  - methodology
  - ethics
- Discussion of appropriate methodologies for research questions and comparative studies of different methodologies. These will concentrate on non-quantitative methodologies typically used in research in the information society and will include:
  - qualitative research
  - grounded theory
  - participative research
  - action research
  - critical research
  - ethnomethodology
- Reading group sessions based on students' suggestions.
- Presentation of finished staff and student research projects.
- Presentation of staff and student research in progress as preparation of publication.
- Joint sessions by students / staff on areas of shared interest.
- Preparation of papers or editorships of special issues of journals in areas of shared interest.

Training courses will be scheduled for two hours, fortnightly, throughout the academic year.

By the end of the course students will have a broader understanding of theories and methodologies employed in information systems research and other disciplines undertaking social research on technologies.

Research Practices in Micro and Nano Sciences and Technologies (REST7046)

Course Description:

This course provides:

- Introduction to Micro and Nano Sciences and Technologies
- Introduction to a cleanroom environment. Good working practices in a cleanroom. Introduction to Faculty of Technology cleanroom.
- Introduction to analytical tools required to carry out research in micro and nano sciences and technologies, and available tools in the Faculty of Technology.
- Introduction to Computer Aided Design (TCAD)
- Sound research practices
- Weekly seminars where research papers are presented by students.
- Monthly informal meetings where research problems are discussed.

Statistics (REST7041)

Course Description:

This is an optional course to 2nd year PhD students (in the Faculty of Technology) who need to become aware of statistical techniques that are available to them.

Places are limited – course intake is up to a maximum of 40 students. Places available on a first come, first served basis.

The course consists of 3 full day sessions (0.5 day lecture followed on next day by 0.5 day laboratory session delivered in 3 parts).

Part 1

Lecture: Statistical Overview (date:10am-1pm Thursday September 2012)

Qualitative versus Quantitative Data
Exploratory data analysis
Data issues, missing data, outliers, data transformation

Types of data collection and types of sampling, sampling distributions. How large a data set? What kind of experimental design?
Statistical inference, Point estimates versus interval estimates. Normal distribution.
Flowchart overview of statistical techniques available.

Lab: Introduction to SAS (date:9.30am-12.30pm Friday 14th September 2012)

Overview of SAS environment
Structure of SAS programs. Data entry in SAS, importing data into SAS, exporting output.
Exploratory data analysis.

Part 2

Lecture: Statistical Techniques (date: mid January)

Overview of hypothesis testing, Test statistics, p-values, confidence intervals, assumptions.
Parametric versus non-parametric tests.
Hypothesis testing: 1 sample t-tests, 2 sample t-tests. Non-parametric equivalents. An introduction to categorical data analysis, chi-squared tests.
Correlation and Simple Linear Regression (SLR)

Lab: Hypothesis testing and SLR in SAS

Testing of assumptions. 1 sample t-tests, 2 sample t-tests. Non-parametric equivalents. 95% CIs. Chi-squared tests. Correlation and SLR.

Part 3

Lecture: Further Statistical Techniques (date: April/May)

What do you do in hypothesis testing when there are more than 2 samples? Answer: ANalysis of Variance (ANOVA).
Hypothesis testing: 1 way ANOVA, 2 way ANOVA, factorial design. Multiple comparison tests: Duncan's Multiple range test, Fisher's LSD test.
What do you do in regression when there are 2 or more independent variables? Answer: Multiple regression.
Multiple regression, Selection Methods: Forward, Backward, Stepwise. Introduction to logistic regression. Overview of Principal Component Analysis.

Lab: ANOVA and Multiple Regression in SAS

Testing of assumptions, 1 way ANOVA, 2 way ANOVA, factorial design. Multiple comparison tests. Multiple regression. Selection methods.

Typesetting a Document with LaTeX (REST7043)

Course Description:

Typesetting Document with LaTeX (PhD Course – Course Leader Professor Francisco Chiclana)

The objective of this course is to learn the use of LaTeX for typesetting documents and creating presentations. It covers the following:

Introduction to LaTeX: Basic document structures.
Producing simple documents using LaTeX: Typesetting, viewing and printing.
Other document structures.
Typesetting Mathematics with LaTeX: Formulae and Graphics.
Customising LaTeX.
Creating Presentations with Beamer.

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CONTACTS

Researcher Development Programme Enquiries

Queries relating to the Researcher Development Programme, information about the course schedules or reserving a place on a generic course should be referred to the:

Graduate School Office
John Whitehead Building

Phone: 0116 250 6242
Email: rtp@dmu.ac.uk

Research General Enquiries

If you have any general enquiries regarding other aspects of your research programme these should be referred to the:

Graduate School Office
John Whitehead Building

Phone: 0116 250 6309
Email: researchstudents@dmu.ac.uk

Researcher Development Framework

The UK is committed to enhancing the higher-level capabilities of the UK workforce including the development of world-class researchers. Researchers are critical to economic success, addressing major global challenges, and building a leading knowledge economy.

The Researcher Development Statement (RDS) sets out the knowledge, behaviours and attributes of effective and highly skilled researchers appropriate for a wide range of careers. The RDS is derived from the Researcher Development Framework (RDF), a major new approach to researcher development, which aims to enhance our capacity to build the UK workforce, develop world-class researchers and build our research base.

The RDS and RDF will contribute to researcher training and development in the UK by providing a strategic statement (RDS) and operational framework (RDF) to support the implementation of the Concordat to Support the Career Development of Researchers, the QAA Code of practice for research degree programmes and the 'Roberts' recommendations for postgraduate researchers and research staff.

The RDS is an evolution of the Research Councils' Joint Skills Statement (JSS) and replaces the JSS as the key reference statement for the development of postgraduate researchers' skills and attributes and researchers employed in higher education.

The RDS is structured in four domains encompassing the knowledge, intellectual abilities, techniques and professional standards to do research, as well as the personal qualities, knowledge and skills to work with others and ensure the wider impact of research. Within each of the domains are three sub-domains and associated descriptors, which describe different aspects of being a researcher.

The four domains are:

Domain A: Knowledge and Intellectual Abilities

The knowledge, intellectual abilities and techniques to do research. The sub-domains are:

- Knowledge Base (A1)
- Cognitive Abilities (A2)
- Creativity (A3)

Domain B: Personal Effectiveness

The personal qualities and approach to be an effective researcher. The sub-domains are:

- Personal Qualities (B1)
- Self-management (B2)
- Professional and Career Development (B3)

Domain C: Research Governance and Organisation

The knowledge of the standards, requirements and professionalism to do research. The sub-domains are:

- Professional Conduct (C1)
- Research Management (C2)
- Finance, Funding and Resources (C3)

Domain D: Engagement, Influence and Impact

The knowledge and skills to work with others and ensure the wider impact of research. The sub-domains are:

- Working With Others (D1)
- Communication and Dissemination (D2)
- Engagement and Impact (D3)

For more information on the Researcher Development Framework and associated Statement refer to www.vitae.ac.uk/rdf.