POSTGRADUATE RESEARCH SERVICE

TRAINING PATHWAY SPECIFICATION

Pathway name	Course code (where applicable)	Year
Faculty of Science PhD, MPhil and MSc by research pathway		2017

NOTE: Whilst the University will make every effort to offer the training pathway as detailed, changes may sometimes have to be made for reasons outside the University's control (e.g. illness of a member of staff) or because of sabbatical leave.

TP1	TRAINING PATHWAY SUMMARY		
TP1.1	**a**	**SCHOOL(S) OF STUDY**	BIO, CHE, CMP, ENV, MTH, PHA
	b	**FACULTY or FACULTIES**	SCI
	c	**NAME OF TRAINING PATHWAY LEAD**	AD PGR, SCI
TP1.2 *Note 1*	**a**	**PATHWAY TITLE**	SCI PhD
	b	**COURSE CODE** (where applicable)	
	c	**FULL/PART-TIME** (please specify)	FT/PT
	d	**LOCATION** (UEA Norwich, Distance Learning)	UEA Norwich
	e	**AVAILABLE FROM** (date)	October 2017
TP1.3	**EXTERNAL INPUT** (please list here the input from external organisations e.g. employers, partner institutions into the development of this pathway)		
	None		
TP1.4	**FURTHER INFORMATION** (web link to further information)		
TP1.5	**AVAILABILITY BY AWARD** (please tick all that apply)		

Masters Degrees by Research	✓	Master of Philosophy		✓
PhD (3-year)	✓	PhD Integrated Studies (4-year)		
PhD by Publication		Doctorate in Clinical Psychology		
Doctor of Education / Master of Education		Doctor of Medicine		

TP1.6	MANDATORY ELEMENTS OF TRAINING	
	The following training is mandatory for all students	
	Training component	**How/when this will be delivered**
	Introduction to UEA and the research and training environment	During induction

Assessing your training needs	During induction period or, for ENVEast & ENVEast associated students, during cohort training
Research integrity, including plagiarism	During induction
Equality and diversity training	Online training (using same material as for staff)
School Health and Safety induction	During School induction but see below for additional H&S training that is compulsory for some students
Freedom of information	Online training (using same material as for staff)
Copyright	Online training (using same material as for staff)
Preparation for the probationary review	SCI2RF4Y or ENVEast cohort training
Participation in school seminar series	Within Schools
Data protection and information security training (online)	Compulsory for all staff and PGR students.

The following training is mandatory for some students

Training component	Students for whom this is compulsory
Ethics (PPD training run by FFH or SSF)	If work involves human subjects or tissues
Home Office Licence (run externally)	If work involves "procedures" on live animals
Sea Survival Training (run externally)	Research on board research vessels
First aid training	For students carrying out fieldwork (see checklist for guidance)
Radioactive substances training (run by USS once a year)	If research includes handling of radioactive substances or using ionising radiation
Training in teaching (detailed requirements vary between schools)	Students wishing to work as associate tutors must complete their School's training requirements before an AT contract will be issued.
Training in literature searching using Web of Science; Scopus or similar and use of bibliographic software such as EndNote	Students who do not already have extensive experience of literature searching and use of bibliographic software should attend relevant PPD sessions and/or access self learning materials so that they can find, an appropriately cite, relevant literature by the time of the probationary review.

TP2   PATHWAY LEARNING OUTCOMES

TP2.1 Learning Outcomes

This pathway is based on the Vitae Researcher Development Framework (RDF https://www.vitae.ac.uk/vitae-publications/rdf-related/researcher-development-framework-rdf-vitae.pdf/view) and the RCUK 'Statement of Expectations for Postgraduate Training' (http://www.rcuk.ac.uk/documents/skills/statementofexpectation-pdf/). The RDF is divided into four domains that encompass:

A **Knowledge and intellectual abilities** – the knowledge needed to do research
B **Personal effectiveness** – the qualities needed to be an effective researcher
C **Research governance and organisation** – the professionalism required
D **Engagement, influence and impact** – the skills needed to work with others and contribute to the wider environment

The RDF sets out the wide-ranging knowledge, intellectual abilities, techniques and professional standards expected 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 four domains of the RDF there are three sub-domains and associated descriptors. Each descriptor is divided into three to five phases corresponding to learning outcomes. For PhD students, the expectation is that a student will achieve the learning outcomes for at least Phase 3 across a significant number of the descriptors in each of the four domains, It is not expected that each student will achieve Phase 3 for higher for all descriptors; each student, in association with their supervisory team can identify and decide which learning outcomes are most appropriate for their research and their broader development as researchers and in preparation for future careers.

Some students will choose to engage with additional activities that may not directly support their research, and may take place outside of UEA, but will benefit their potential career destination(s) and can contribute to meeting learning outcomes. These might include engagement with the public; commercialisation of research or development of teaching skills beyond the level that is mandatory to hold an AT contract.

Students are expected not only to develop as knowledgeable and skilled researchers, capable of carrying out world-leading research, but they are also expected to develop a broader outlook as researchers and to develop a broad range of knowledge, skills and personal attributes which can be applied across a wide range of disciplines and career pathways. In order to develop a broad range of skills, it is expected that PhD students will commit a minimum of 30 days to training and development over the course of their research. This expectation is pro-rated for MPhil (20 days) and MSc by Research (10 days).

TP2.2 How will these learning outcomes be reviewed?

In discussion with their supervisory team, each student will complete a Training Needs Analysis at the beginning of their period of study and develop a training and development (T&D) plan for the first 12 months of their research. This should cover the learning objectives in terms of **both** project specific skills **and** wider transferrable skills. The student's skills development should be discussed at interim progress meetings with their supervisory team, and during individual meetings with their supervisor and the T&D plan updated.

At each annual review, including the probationary review, the student will present a list of training completed to date, and a short reflective report reviewing their progress towards meeting the learning outcomes during the previous year and setting training and development objectives, including training planned, for the subsequent year. This should include both skills needed to do the research; the development of wider transferrable skills and any particular skills that the student wishes to develop to help them achieve longer career goals.

The supervisory panel will discuss the student's development and future development needs with them and add comments to the student's reflective report. If the student's research progress is less than satisfactory, the panel should consider whether focussed development and/or training in particular skills would help to

bring the research progress back on track. If the supervisors express any concerns about training and development, these will be reviewed by the School PGR director. All reports will be reviewed by the SCI Training coordinator or AD who will refer reports back to students and/or supervisors if students are not engaging with their skill development. A satisfactory assessment of engagement with skill development and achieving the learning outcomes when the thesis title approval form is submitted will replace the current 30 PPD credit requirement for the oral examination to take place.

Where a student begins the programme with a high level of transferrable skills, perhaps from training during previous employment or completion of an MRes degree, the AD PGR and Training coordinator will consider requests from the student, made with the support of the supervisor, to reduce the amount of further development required. However, students are expected to further develop their professional skills during their degree programme, even if these are already good, so anticipate that this provision will be used mainly to meet the needs of part time students engaged in relevant employment alongside their studies.

TP2.3 Training Structure

Over the period of registration, students should participate in a minimum of 30 days training and development, including the mandatory elements (pro rata for MPhil and MSc). The mandatory training should be completed before the probationary review. Other training will be drawn from the Faculty's PPD program, externally available training, including online training, MOOCs, training events offered by ENVEast, etc, and subject specific training such as MAGIC courses, available to research students in MTH.

The Faculty will produce guidance documents, structured using the RDF, identifying the most common areas for development and the PPD courses and other training and development opportunities available in each.

Achieving the learning outcomes may also be achieved through experiential learning activities e.g. attending and presenting at meeting and conferences, participating in outreach activities in schools contributing to School Open Days at UEA, working as an associate tutor, supervising undergraduate and masters' project students, scientific blogging, organising meetings and conferences and similar developmental activities. Participating in activities outside the research environment may also contribute to development through experiential learning e.g. on the organising committee of a sport, strong involvement with a charitable organisation; school governor etc.

TP3 PATHWAY COHERENCE AND EMPLOYABILITY

TP3.1 Learning Progression

How will progression in terms of skills, knowledge and understanding be reflected in the pathway between activities/courses in any one year and across the years as research degree candidates make progress through their course of study?

Training in year one should focus particularly on mandatory training, and skills that are essential to allow the student to carry out their research. In subsequent years, students will be encouraged to develop the learning outcomes as articulated by the Vitae Researcher Development Framework. It is anticipated that most students will be at Phase 1 or 2 at the start of the degree and hence should progress from there. Some students may already be at the higher phases at the start and they should develop their capabilities further through the course of their research.

The student and the supervisory team will reflect on the student's skills development on an annual basis, and this will be part of the assessment of whether progress is satisfactory. An overall assessment of whether the student has engaged with the process of skills development will be made towards the end of the period of study.

TP3.2 Feedback Cycle

Please explain how feedback from supervisors and others will support the coherence of the programme. How will this feedback impact on subsequent activities/courses?

The SCI AD and Training coordinator will review individual student's reflective reports on training; schedule an annual discussion about training and development with School PGR Directors at SCI Graduate School Executive and hold focus groups with students from individual schools. Training priorities, and the detail of the PPD programme for the next year.will be reviewed in the light of this feedback.

TP3.3 Employability

How is employability embedded into the pathway?

All students registered on this pathway will receive an introduction to the university careers service (and to the many opportunities/services they offer), including an opportunity to meet their designated PGR Careers Advisor, at their PhD induction session. The importance of being widely employable in the current job market is also highlighted at induction in a dedicated PPD/Training Overview session.

Thereafter, numerous training sessions are run on the RDTS (PPD) training programme by the careers team are available to pathway students, including sessions on preparing successful applications and achieving interview success in both academic and non-academic contexts, how to use the 'My Career Central' software effectively, and a 'PGR Opportunities Fair' runs each May as a means of highlighting the importance of successful career planning at PhD level. The development of transferrable skills will enhance student's employability. The Training Needs Analysis and annual reflective reports will encourage students to conceptualise how their skills are developing, to identify the skills that they need to maximise their employability in their chosen career and therefore be better placed to be able to respond to the requirements of person specifications when applying for jobs and to give concrete examples of how they can demonstrate that they have acquired these skills.

Notes
1. Pathways may correspond to a particular degree programme within a School (e.g. Doctorate in Clinical Psychology) or to programmes within a particular Faculty or other Graduate School, or to cross-institutional programmes within a Doctoral Training Partnership.

2. Pathways may choose to specify learning outcomes to be achieved in individual years of the programme or to be achieved by the end of the programme.