

EnvEast DTP Cohort Training – aims and objectives

Induction: held in October at Flatford Mill, Essex for Year 1 students (duration 3 days)

Aim: To provide new students with a general introduction to each other, to EnvEast, to the nature of doctoral research and to the role of training.

Objectives	Content/Mode of delivery	Map to VITAE framework	Map to NERC guidance and skills gaps
<p><i>Building a student community</i> To introduce students to the benefits of being part of a cohort, and to facilitate and encourage the creation of an active community by providing a supportive and welcoming environment for new students to get to know each other.</p>	<ul style="list-style-type: none"> • Introductory and ice-breaking activities • Health and safety information • Bio-pics prepared by students prior to arrival • Project-focussed group exercise, including project planning, data analysis, risk assessment and presentation • Cohort self-organisation, cohesion and communications • Opportunities for social interaction 	Cognitive abilities (A2) Personal qualities (B1) Working with others (D1)	DTP AO guidance on the student community (paras 6 & 7)
<p><i>Understanding the context</i> To ensure that participants have a contextual understanding of EnvEast and the wider NERC DTP framework, and are equipped with essential general and background information.</p>	<ul style="list-style-type: none"> • Contextual information on NERC, DTPs, Skills review 2012, employability/careers, etc • Information on who's who within EnvEast, first points of contact, etc (handbook, EnvEast and university websites etc) • The reporting cycle (institutional and NERC-related) • Available resources 	Knowledge base (A1) Finance, funding and resources (C3)	DTP AO guidance on PPD (para 13)
<p><i>Embarking on your research</i> To introduce the principles of research at doctoral level and to ensure students understand their own contribution to the management of their studentship and the direction of their research.</p>	<ul style="list-style-type: none"> • Nature of a PhD from start to finish • The student-supervisor relationship • Planning research, incl. the principles of risk assessment • Useful tools (eg Gantt charts) • Data management and record-keeping • The PhD moving forward – time and project management, work/life balance, dealing with stress • The final product – looking at 'real' PhD theses 	Knowledge base (A1) Self-management (B2) Professional conduct (C1) Research management (C2)	DTP AO guidance on PPD (para 13) Skills Review 2012 - most wanted skills: data management; risk and uncertainty

<p>Getting the most out of training To ensure that participants understand the significance and benefits of training as an integral part of their doctoral study and personal development.</p>	<ul style="list-style-type: none"> • Introduction to training, including Vitae framework, transferable skills, PPD and institutional training structures, • The EnvEast Training Plan and Cohort training programme • Personal responsibility/self-reflection and skillsets • Tracking training progress – introduction to the RDF Planner • Innovation and the E3I club • The RTSG, additional available funding and how to apply 	<p>Knowledge base (A1) Personal qualities (B1) Self-management (B2) Professional and career development (B3)</p>	<p>DTP AO guidance on PPD (para 13)</p>
<p>Planning ahead To encourage students to make the most of the opportunities available as an EnvEast student in support of their research and future directions.</p>	<ul style="list-style-type: none"> • Talks by current students, including observations on work-shadowing and internship opportunities • Postdoctoral case studies/video clips 	<p>Personal qualities (B1) Professional and career development (B3) Working with others (D1)</p>	<p>DTP AO guidance on PPD (para 13)</p>

Winter School: held in December at a venue arranged by the University of Essex, for Year 1 students (duration 3 days)

Aim: to ensure that students have a basic understanding of the concepts and knowledge needed, and the tools available, to be an effective researcher in the early stages of a doctoral project.

Objectives	Content/Mode of delivery	Map to VITAE framework	Map to NERC guidance and skills gaps
<p>Building a student community To develop and consolidate cohesion within and across the student cohort in order to encourage a mutually supportive environment and a strong and active student community, with opportunities for sharing ideas.</p>	<ul style="list-style-type: none"> • Case-study focussed group exercise • Poster-focussed group work • Outdoor activities session(s) • Opportunities for social interaction outside of formal training sessions 	Cognitive abilities (A2) Personal qualities (B1) Working with others (D1) Communication and dissemination (D2)	DTP AO guidance on the student community (paras 6 & 7) DTP AO guidance on scientific training – presenting work to colleagues (para 10viii)
<p>Conducting your research To develop students’ understanding of the standards, requirements and professionalism involved in research.</p>	<ul style="list-style-type: none"> • Oil-spill case study/role play • Basic introduction to ethics, scientific rigour, respect and responsibility • Socio-economic aspects of environmental science • Introduction to the principles of quantitative analysis of scientific data • Carrying out fieldwork 	Knowledge base (A1) Cognitive abilities (A2) Professional conduct (C1) Research Management (C2) Engagement and impact (D3)	DTP AO guidance on scientific training – understanding wider context of research (para 10iv) Skills Review 2012 - most wanted skills: data management; multi-disciplinarity; numeracy; fieldwork
<p>Managing your resources To ensure students understand and deploy effectively the resources - ‘outer’ and ‘inner’ - available to them, in support of their research.</p>	<ul style="list-style-type: none"> • Belbin team roles exercise • Work-life balance and time management • Overview of computer systems – what software could help me? • Tools for online collaboration 	Knowledge base (A1) Personal qualities (B1) Self-management (B2) Professional and career development (B3) Finance, funding and resources (C3) Working with others (D1)	DTP AO guidance on: - the student community (paras 6 & 7) - PPD (para 15) - Multi-disciplinarity (para 20 and 22iii)

<p>Communicating your research To explore and test in a secure and supportive environment a range of communication and dissemination strategies.</p>	<ul style="list-style-type: none"> • Introduction to general report writing – writing the first year research report • Creating effective poster presentations • Marine oil-spill case study (giving briefings and presentations) • Creating a web presence 	<p>Knowledge base (A1) Cognitive abilities (A2) Creativity (A3) Personal qualities (B1) Communication and dissemination (D2)</p>	<p>DTP AO guidance on scientific training – presenting work to colleagues (para 10viii) Skills Review 2012 - most wanted skills: translating research into practice</p>
<p>Planning ahead To raise awareness of possible career paths post EnvEast and the benefits of taking advantage of career-related opportunities along the way.</p>	<ul style="list-style-type: none"> • How to get involved in external activities • Presentations from external speakers (from industry, commerce, charities, agencies, NGOs etc) 	<p>Personal qualities (B1) Professional and career development (B3)</p>	<p>DTP AO guidance on PPD – career management (para 16)</p>

Summer School 1: held in June at the University of East Anglia, for Year 1 students (duration 5 days)

Aim: to provide an opportunity for students to reflect collectively on the first year of their PhD programme and prepare them for the challenges of the second year of study, raising awareness of multi-disciplinary approaches and ways to communicate ideas and the impact of research.

Objectives	Content/Mode of delivery	Map to VITAE framework	Map to NERC guidance and skills gaps
<p><i>Building a student community</i> To continue to develop and consolidate cohesion within and across the student cohort, encouraging the forging of links beyond immediate areas of research expertise.</p>	<ul style="list-style-type: none"> • Reflection-focussed group work • ‘lightning’ talks by students • Outdoor day and evening activity session(s) • Opportunities for social interaction outside of formal training sessions 	Cognitive abilities (A2) Personal qualities (B1) Working with others (D1) Communication and dissemination (D2)	DTP AO guidance on the student community (paras 6 & 7) DTP AO guidance on scientific training – presenting work to colleagues (para 10viii)
<p><i>Exploring multi-disciplinarity</i> To raise awareness of the significance and challenges of multi-disciplinary research and its relevance to students’ own areas of expertise.</p>	<ul style="list-style-type: none"> • Multi-disciplinarity workshop 	Knowledge base (A1) Research management (C2) Engagement and impact (D3)	DTP AO guidance on the student community (para 7i) and Multidisciplinarity (paras 20-22) Skills Review 2012 - most wanted skills: multi-disciplinarity
<p><i>Conducting your research</i> To explore the interrogation, manipulation and analysis of large datasets as an integral part of the research process.</p>	<ul style="list-style-type: none"> • Big data 	Knowledge base (A1) Cognitive abilities (A2) Research management (C2) Professional conduct (C1)	DTP AO guidance on: - scientific training (para 10i, v) - PPD (para 20 & 22iii)
<p><i>Communicating your research</i> To develop knowledge and understanding of the nature of academic writing and how to get published, exploring ways in which to engage with a wide range of audiences.</p>	<ul style="list-style-type: none"> • Science Communication: talking (and listening) to diverse audiences, incl. the media. • Introduction to academic writing - pointers to good practice, referencing, copyright, data protection, plagiarism, collusion, etc • Introduction to peer review - critical evaluation of colleagues’ work • Diagrams and tables for publication • The publication process and output 	Knowledge base (A1) Cognitive abilities (A2) Personal qualities (B1) Professional and career development (B3) Professional conduct (C1) Communication and dissemination (D2) Engagement and impact (D3)	DTP AO guidance on scientific training – preparing and writing thesis and papers (para 10iii) Skills Review 2012 - most wanted skills: translating research into practice

<p><i>Planning ahead</i> To consider the skills and aptitudes advantageous for future employment and to initiate individual action plans for the future.</p>	<ul style="list-style-type: none"> • Employment-related opportunities such as internships • Setting individual goals 	<p>Personal qualities (B1) Self-management (B2) Professional and career development (B3)</p>	<p>DTP AO guidance on PPD – career management (para 16)</p>
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Presenting Your Science: a combined conference and showcase for all Years/Cohorts, rotating annually at the University of Kent, British Antarctic Survey (BAS), Cambridge, and Plymouth Marine Laboratory (PML) (duration 1.5 days)

Aim: To provide students with an opportunity to present their research and to engage in critical discourse in a multidisciplinary context.

Objectives	Content/Mode of delivery	Map to VITAE framework	Map to NERC guidance and skills gaps
<p>Building a student community To develop networks across student cohorts, encouraging the forging of links beyond immediate areas of research expertise.</p>	<ul style="list-style-type: none"> • Presentation and discussion of research by/for students from all cohorts. 	Knowledge base (A1) Cognitive abilities (A2) Personal qualities (B1) Professional and career development (B3) Working with others (D1) Communication and dissemination (D2)	DTP AO guidance on: - the student community (paras 6 & 7) - scientific training (para 10iv, v & viii) - PPD (paras 15 & 18iv) - multidisciplinary (paras 20 & 22i, iii & v)
<p>Exploring multi-disciplinarity To initiate and inspire discussion and ideas across a range of subjects and disciplines.</p>	<ul style="list-style-type: none"> • Presentation and discussion of research by/for students from all cohorts, across all EnvEast thematic areas. 	Knowledge base (A1) Cognitive abilities (A2) Creativity (A3) Personal qualities (B1)	DTP AO guidance on: - the student community (para 7i, iii, v) - scientific training (para 10iii, vi, viii) - PPD (paras 15 & 18iv) - multidisciplinary (paras 20 & 22i, iii, v) Skills Review 2012 - most wanted skills: multi-disciplinarity
<p>Communicating your research To develop a high level of presentational skills with the capacity to explain research and its impact clearly and effectively and to engage a large audience comprising a range of subject expertise and knowledge.</p>	<ul style="list-style-type: none"> • Presentations of their research by Year 2+ students to all cohorts. • Poster presentations and infographics 	Knowledge base (A1) Cognitive abilities (A2) Creativity (A3) Personal qualities (B1) Professional and career development (B3) Working with others (D1) Communication and dissemination (D2) Engagement and impact (D3)	DTP AO guidance on: - the student community (para 7iii) - scientific training (para 10ii, iv, vi, viii) - PPD (paras 15 & 18iii & iv)- multidisciplinary (paras 20 & 22iii, & v) Skills Review 2012 - most wanted skills: translating research into practice

Innovation Workshop: rotating annually in March/April at the University of Kent, British Antarctic Survey (BAS), Cambridge, and Plymouth Marine Laboratory (PML) for Years 2-4 (duration 2 days, following *Presenting Your Science*)

Aim: To explore pathways to impact through innovation and creativity in a workshop setting involving students from a range of disciplines and at different stages in their research.

Objectives	Content/Mode of delivery	Map to VITAE framework	Map to NERC guidance and skills gaps
<p><i>Understanding the concept of Innovation in research</i> To build an awareness of Innovation in Academia and learn how to apply the process of Innovation to research.</p>	<ul style="list-style-type: none"> • Presentations, group activities and challenges (ThinkBig Hethel Innovation workshop) 	Knowledge base (A1) Cognitive abilities (A2) Creativity (A3) Research management (C2) Working with others (D1) Communication and dissemination (D2) Engagement and impact (D3)	DTP AO guidance on: - the student community (para 6 & 7) - scientific training (para 10i, ii, iv) - PPD (paras 15 & 18i, iii & iv) - multi-disciplinarity (para 22i, iii, vii) Skills Review 2012 - most wanted skills: Multi-disciplinarity; Translating Research into Practice
<p><i>Understanding the potential impact of your research</i> To explore ways to use Innovation to widen the impact of your research to benefit a wide range of sectors, including policy, commercial, general public and charity.</p>	<ul style="list-style-type: none"> • Presentations, group activities and challenges (ThinkBig Hethel Innovation workshop) 	Knowledge base (A1) Cognitive abilities (A2) Professional and career development (B3) Creativity (A3) Research management (C2) Working with others (D1) Communication and dissemination (D2) Engagement and impact (D3)	DTP AO guidance on: - the student community (para 6 & 7) - scientific training (para 10i, ii, iv) - PPD (paras 15 & 18i, iii & iv) - multi-disciplinarity (para 22i, iii, vii) Skills Review 2012 - most wanted skills: Multi-disciplinarity; Translating Research into Practice
<p><i>Implementing innovation you're your research</i> To learn how to apply Innovation tools and construct an action plan for implementing Innovation to enhance your research.</p>	<ul style="list-style-type: none"> • Presentations, group activities and challenges (ThinkBig Hethel Innovation workshop) 	Knowledge base (A1) Cognitive abilities (A2) Creativity (A3) Research management (C2) Working with others (D1) Communication and dissemination (D2) Engagement and impact (D3)	DTP AO guidance on: - the student community (para 6 & 7) - scientific training (para 10i, ii, iv) - PPD (paras 15 & 18i, iii & iv) - multi-disciplinarity (para 22i, iii, vii) Skills Review 2012 - most wanted skills: Multi-disciplinarity; Translating Research into Practice

Summer School 2: held every June at the University of East Anglia, for Year 3 students (duration 5 days)

Aim: To support students as they approach the final stages of their doctoral study and to provide appropriate advice and support to facilitate informed decisions about postdoctoral career options.

Objectives	Content/Mode of delivery	Map to VITAE framework	Map to NERC guidance and skills gaps
<p><i>Building a research community</i> To build on links forged during the lifetime of the PhD and encourage the extension of networks and contacts beyond EnvEast.</p>	<ul style="list-style-type: none"> • Reflection-focussed group work • Outdoor day and evening activity session(s) • Opportunities for social interaction outside of formal training sessions 	Cognitive abilities (A2) Personal qualities (B1) Working with others (D1) Communication and dissemination (D2)	DTP AO guidance on PPD – career management (para 7ii)
<p><i>Communicating the outcomes of your research</i> To explore styles, techniques and genres involved in research writing at an advanced stage.</p>	<ul style="list-style-type: none"> • Writing the thesis • Preparing for your viva • Writing for different audiences – journals, scientific papers, policy makers etc • Preparing research proposals • The peer review process - responding to reviews • Blogs and websites • How to work with the Media (optional) 	Knowledge base (A1) Cognitive abilities (A2) Professional Conduct (C1) Finance, funding and resources (C3) Communication and dissemination (D2) Engagement and impact (D3)	DTP AO guidance on PPD – career management (para 18iii) Skills Review 2012 - most wanted skills: translating research into practice
<p><i>Maximising the impact of your research outcomes</i> To develop knowledge and understanding of ways in which to exploit research results, the importance of effective data management and how to share data so that it can be used effectively by others.</p>	<ul style="list-style-type: none"> • Data archiving/management – best practice 	Knowledge base (A1) Research management (C2)	Skills Review 2012 - most wanted skills: data management
<p><i>Planning ahead</i> To enable students to reflect on progress in achieving personal goals and to provide practical support in pursuing potential career choices.</p>	<ul style="list-style-type: none"> • Business start-ups • Developing academic/business profile through social media • Academic/professional interviews and presentations? • Alumni panel/employer workshop? • Destinations and alumni case studies? • Review of individual career plans/objectives? • Developing your teaching skills? 	Personal qualities (B1) Self-management (B2) Professional and career development (B3) Engagement and impact (D3)	DTP AO guidance on PPD (paras 15 & 16)