



University of the
West of England

STUDENT AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	People and Science				
Module Code	USSKCM-30-0	Level	0	Version	2
Owning Faculty	Health & Applied Sciences	Field	Applied Sciences		
Contributes towards	Science Foundation Year				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	standard
Pre-requisites	None		Co- requisites	None	
Excluded Combinations	None		Module Entry requirements	None	
Valid From	September 2014 September 2017 (v2)		Valid to	September 2020	

CAP Approval Date	31/05/2017 (v2)
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Part 2: Learning and Teaching

Learning Outcomes

On successful completion of this module students will be able to:

- understand the nature of science and scientific investigation (A1);
- attain, synthesise, convey and learn scientific information (A1,B1,B2);
- use a range of computer software for recording and analysing data, and for writing up and presenting results, in documents, live presentations and executable files (A2,B2);
- obtain scientific quantities from experimental data, using spreadsheets to carry out basic statistical analysis and graphical techniques (A2);
- demonstrate their engagement in effective group-working skills; both face-to-face, and facilitated by distance-learning or online technologies, such as wikis (B1 B2);
- define and distribute tasks within a team, such as literature searches, meet tutor led milestones, and deliver a group presentation on a “People and Science” case-study (B2);
- appreciate the challenges faced by both scientists and science communicators in relation to communicating science to the public (B1 B2);
- be aware of opportunities and constraints of different approaches to science communication, both media based (e.g. print, broadcast) and direct audience interventions (e.g. public consultation, demonstrations) as vehicles for science communication (B1 B2);
- develop practical skills relating to communicating science (B1 B2);

Syllabus Outline

The module will introduce students to the nature of science and scientific investigation and will help equip them for studying science at University.


An appreciation of a learner's relationship with others in the context of scientific endeavours will enhance the effectiveness students as they embark upon their graduate careers. The syllabus will be structured with the objective of providing experience of scientific ethos and techniques and study and communication skills. This aims to enhance students' ability to engage successfully with their future studies at University and to be equipped both to deal with scientific ideas and data and to communicate results. Specifically, the module will introduce the following:

- Nature of Science and Science Investigation and Scientific Advances from the Past.
- Selected topics to enable the transition to successful study at University and to know how to obtain, synthesise and report scientific information (both verbally and in writing).
- Practical experience of using a range of computer packages, including the use of spreadsheets for statistical and graphical analysis of scientific data.
- Learning Skills. Within the context of the “Group Presentation on a Scientific Topic”, students will engage in activities relating to this task: academic reading, literature and information searching, use of appropriate software for presentations, time management, planning.
- An understanding of the interface between science and society with clear examples to explore the impact of the media on society.
- The meaning of informal learning and its role in science communication.
- Development of a basic toolkit to present science in public.

Contact Hours	<p>The contact hours (72) are distributed as follows:</p> <p>12x 1-hour nature of science and study skills lectures: 12 hours total 12x 2-hour IT and data analysis workshops: 24 hours total 12x 1-hour science communication lectures: 12 hours total 12x 2-hour science communication workshops: 24 hours total</p>
Teaching and Learning Methods	<p>A variety of learning approaches will be used. Taught sessions will utilise TEL where possible, to support pedagogy of Inductive Learning where the students will engage in facilitated activities such as debates, case studies, problem-based learning etc.</p> <p>Workshop sessions will provide opportunities for data handling and interpretation, problem solving and discussions with academic staff.</p> <p>Student independent learning (>70% of module allocated time) will be supported with interactive revision material, workbooks and the University's E-Learning Environment (Blackboard).</p> <p>Scheduled learning includes lectures and workshops.</p> <p>Independent learning includes hours engaged with essential reading, assignment preparation and completion. Students will be given support with this through the workshops.</p>
Key Information Sets	<p>Key Information Sets (KIS) are produced at programme level for all programmes that this module contributes to, which a requirement is set by HESA/HEFCE. KIS are</p>

Information

comparable sets of standardised information about undergraduate courses allowing prospective students to compare and contrast between programmes they are interested in applying for.

Key Information Set - Module data				
<i>Number of credits for this module</i>				
				30
Hours to be allocated	Scheduled learning and teaching study hours	Independent study hours	Placement study hours	Allocated Hours
300	72	228		300
				

The table below indicates as a percentage the total assessment of the module which constitutes a -

Written Exam: written exam test					Unseen and in-class
Coursework: presentation portfolio	Written exam assessment percentage			40%	Group and SWOT
	Coursework assessment percentage			60%	
				100%	

Reading Strategy

All students will be encouraged to make full use of the print and electronic resources available to them through membership of the University. These include a range of electronic journals and a wide variety of resources available through web sites and information gateways. The University Library's web pages provide access to subject relevant resources and services, and to the library catalogue. Many resources can be accessed remotely. Students will be presented with opportunities within the curriculum to develop their information retrieval and evaluation skills in order to identify such resources effectively.

Any **essential reading** will be indicated clearly, along with the method for accessing it, e.g. students may be expected to purchase a set text, be given or sold a print study pack or be referred to texts that are available electronically, etc. This guidance will be available either in the module handbook, via the module information on Blackboard or through any other vehicle deemed appropriate by the module/programme leaders.

If **further reading** is expected, this will be indicated clearly. If specific texts are listed, a clear indication will be given regarding how to access them and, if appropriate, students will be given guidance on how to identify relevant sources for themselves, e.g. through use of bibliographical databases.

A detailed reading list will be made available through relevant channels, e.g. module handbooks, Blackboard, etc.

Indicative Reading List	Poulson, L., and Wallace, M. (eds. 2006), <i>Learning to Read Critically in Teaching & Learning</i> London: Sage.
	<p>Robbins, S. (2009), <i>Science Study Skills</i> Palgrave Macmillan.</p> <p>Cottrell, S. (2008), <i>The Study Skills Handbook</i> Basingstoke: Palgrave Macmillan.</p> <p>Bowater, L and Yeoman, K. (2013), <i>Science Communication. A Practical Guide for Scientists</i>. Chichester: Wiley-Blackwell.</p>

Part 3: Assessment

Assessment Strategy	<p>The Assessment Strategy has been designed to support and enhance the development of both subject-based and skills which will support progression onto the destination Programme, whilst ensuring that the module's Learning Outcomes are attained, as described below.</p> <p><i>The Controlled Component [40%].</i></p> <p>Written Exam</p> <p>The exam will be 1 hour duration which is consistent with the Department's assessment strategy for Level 0 modules. This assessment will provide students with an opportunity to demonstrate both their knowledge on a broad range of topics through a series of multi-choice questions and to evidence their acquired skills through two short answer questions. This assessment will test a range of the learning outcomes and will provide a valuable learning experience through recalling and demonstrating knowledge which will be of benefit when progressing to UG Programmes in the Faculty.</p> <p>In-session Assessment of IT and Data Analysis</p> <p>Students will work through an IT (and data analysis) portfolio, at their own pace, submitting required output as they finish assignments. These submissions account for 40% of this assessment. Following engagement with the first two sections of the portfolio (basic software and data analysis) students can complete an on-line test assessing their understanding of the work to date in the module. This test constitutes 60% of the assessment mark and can be completed in any of the remaining sessions, as they work on section 3 of the portfolio (advanced presentation software).</p> <p><i>The Coursework Component [60%] contains two elements.</i></p> <p>Group Presentation on a Scientific Topic</p> <p>Students will work in groups and select a scientific topic on which they will research and deliver a brief presentation. Students will be given advice on appropriate techniques for collecting, identifying and assimilating reliable information as well as formulating a professional presentation. The ability to assess and digest research data and communicate it in a presentation are highly sought after graduate skills.</p> <p>Science Communication SWOT Portfolio</p> <p>Students will be asked to compile a portfolio of SWOT (Strengths, Weaknesses, Opportunities, Threats) analyses of science communication activities/mechanisms covered during the sessions. Students will be taught and given the opportunity to practise SWOT analyses in class. Realising that there are no better or worse science communication mechanisms, but rather different ones with their respective strengths and weaknesses depending on context is a skill transferable to all realms of life.</p>
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	Formative feedback is available to students throughout the module via group discussions, and in workshops. Students are provided with formative feedback for their exam through a revision and exam preparation session prior to the exam and through the extensive support materials supplied through Blackboard. All work is marked in line with the Department's Generic Assessment Criteria and conforms with university policies for the setting, collection, marking and return of student work. Where an individual piece of work has specific assessment criteria, this is supplied to the students when the work is set.
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Identify final assessment component and element	Component B Element 1	
% weighting between components A and B (Standard modules only)	A: 40%	B: 60%
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Written exam (1h)	50%	
2. In-session assessment of IT and Data Analysis	50%	
Component B Description of each element	Element weighting (as % of component)	
1. Science Communication SWOT Portfolio	50%	
2. Group Presentation on a Scientific Topic	50%	

Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Written examination (1hr)	100%	
Component B Description of each element		
1. Written Portfolio (1000 words)	100%	

If a student is permitted a retake of the module under the University Regulations and Procedures, the assessment will be that indicated by the Module Description at the time that retake commences.

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First CAP Approval Date	31 May 2016			
Revision CAP Approval Date	31 May 2017	Version	2	RIA 12286