



CORPORATE AND ACADEMIC SERVICES

MODULE SPECIFICATION

Part 1: Basic Data					
Module Title	Hands-on Science Communication				
Module Code	USSJC7-30-M	Level	M	Version	5
Owning Faculty	HLS	Field	BESC		
Contributes towards	MSc Science Communication				
UWE Credit Rating	30	ECTS Credit Rating	15	Module Type	Standard
Pre-requisites	None		Co- requisites	None	
Excluded Combinations	N/A		Module Entry requirements	N/A	
Valid From	September 2012		Valid to	September 2018	

CAP Approval Date	3 July 2012
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Part 2: Learning and Teaching	
Learning Outcomes	<p>On successful completion of this module students will be able to:</p> <ul style="list-style-type: none"> Analyse past and present hands-on science communication venues and events in terms of their goals, aims and objectives, and relating them to corresponding theories and trends in science communication. Integrate insights from different knowledge domains that affect the conceptual and technological evolution of science communication as delivered at Science Centres and Planetariums and critiquing trends and initiatives in their light. Synthesise theoretical and practical principles of science communication and apply these to evaluate the strengths and weaknesses of hands-on science communication at addressing different kinds of audiences. Organise knowledge and skills on hands-on science communication in order to create, plan and develop a hands-on activity and/or exhibit that will appropriately communicate science to a specific public. Apply the skills required to work as a professional science communicator in the context of direct contact with the public through 'live' audience engagement.
Syllabus Outline	Hands-on Science communication aims to present to students the historical, conceptual and technological evolution of Science Centres and Planetariums, providing a context for their development, characteristics and strengths and

	<p>weaknesses in the broader framework of science communication in the 21st century. A further aim of this module is to develop students' practical skills in creating and delivering hands-on science communication projects. Such activities involve working with 'live' audiences and encompass a broad range of communication styles, such as exhibitions, demonstration lectures, debates, hands-on workshops, make-and-take activities etc.</p> <p>Topics covered include:</p> <ul style="list-style-type: none"> • Science centres and museums in the context of science communication • Planetariums and digital theatres • Exhibit development • Guided walks and tours • Demonstration skills & science busking • Project design skills
<p>Contact Hours/Scheduled Hours</p>	<p>The module is delivered in an innovative 3-day block teaching format (Thursday-Saturday), which mirrors other module delivery for the MSc Science Communication and Postgraduate Certificate in Practical Science Communication. Each teaching day occurs from 9.30-4.30 and is supplemented by learning beyond the teaching block. Students attend three, 3-day blocks for this module.</p>
<p>Teaching and Learning Methods</p>	<p>The module will be taught in block teaching sessions. During the intensive teaching sessions, material will be delivered using a mixture of lecturing, problem-based learning, seminars and workshop sessions. The module will use case studies and practical exercises to introduce a wide variety of key skills and techniques for hands-on science communication.</p> <p>Considerable emphasis will be placed on the application of the skills needed to devise and run projects that take science directly to public audiences. The processes will be structured to closely mirror how professional science communicators operate in practice. Students will be expected to operate in teams working on each other's ideas, providing feedback, support and practical advice. They will liaise with UWE researchers and form teams with them and Student Ambassadors in order to host a series of stands at a final, real, public engagement event.</p> <p>The intensive teaching periods will be supplemented by guided and independent reading to provide suitable background on the subject and examine theoretical concepts in detail.</p> <p>The course tutors will provide guidance on appropriate texts and resources, which students will be expected to work through independently. Students will also be required to perform further individual research to extend their knowledge of subjects relevant to the course content. They will be expected to complete a number of set assignments (e.g. essays, presentations and/or workshop sessions) as a result of this learning, following topics set by the course tutors. Independent study plays an important role in all modules and is essential for your success on the programme. In the case of small student numbers the teaching and learning methods will be adapted appropriately to support a stronger element of independent learning.</p> <p>This will be supported by tutor-led workshops combined with case studies and site visits as appropriate.</p>
<p>Reading Strategy</p>	<p>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</p>

	<p>to develop their information retrieval and evaluation skills in order to identify such resources effectively.</p> <p>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.</p> <p>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.</p>
Indicative Reading List	<p>Bell, P., Lewenstein, B., Shouse, A.W. and Feder, M.A., eds. (2009) Learning science in informal environments: people, places, and pursuits. Washington, D.C.: Committee on Learning Science in Informal Environments, National Research Council.</p> <p>Brake, M. and Weitkamp, E. (eds.) Introducing Science Communication. London: Palgrave MacMillan.</p> <p>Diamond, J. (1999) Practical evaluation guide: tools for museums and other informal educational settings. London: AltaMira Press.</p> <p>Evered, D. and O'Connor, M. (1987) Communicating Science to the Public. Chichester: Wiley.</p> <p>Humphrey, T. & Gutwill, J.P. (2008) Fostering Active Prolonged Engagement: The Art of Creating APE Exhibits. Exploratorium Museum Professional Series.</p> <p>McLean, K. & McEver, C. (2004) Are we there yet? Conversations about best practices in Science Exhibition Development. The Exploratorium.</p> <p>Olson, R. (2009) Don't Be Such a Scientist. Washington: Island Press.</p> <p>Scanlon, E., Whitelegg, E. and Yates, S. (1999) Communicating Science. London: Routledge.</p> <p>Schiele, B. (2008) "Science museums and science centres" in Bucchi, M. and Trench, B. (eds) Handbook of Public Communication of Science and Technology. Oxon, Routledge.</p> <p>Weaver, S. (2007) Creating great visitor experiences: a guide for museums, parks, zoos, gardens, & libraries. California: Left Coast.</p> <p>Xanthoudaki, M. Ed (2002) A place to Discover. Teaching Science and Technology with Museums. Milano: SMEC.</p>

Part 3: Assessment	
Assessment Strategy	<p>Assessment Component A –</p> <ul style="list-style-type: none"> • Delivery of a Practical Presentation (CC1) • Reflective Critique on the Delivery of a Practical Presentation (CC2) <p>Assessment Component B –</p> <ul style="list-style-type: none"> • Development and Presentation of a Hands-On Exhibit at a science fair (CW1) • Written Report on the process of preparing a stand for a science fair in the format of a guide of good practice for future use. (CW2)

Identify final assessment component and element	Component 2 Element B	
% weighting between components A and B (Standard modules only)	A:	B:
	40%	60%
First Sit		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Delivery of a Practical Presentation	50%	
2. Reflective Critique on the Delivery of a Practical Presentation	50 %	
Component B Description of each element	Element weighting (as % of component)	
1. Development and Presentation of a Hands-On Exhibit	30%	
2. Written Report	70%	
Resit (further attendance at taught classes is not required)		
Component A (controlled conditions) Description of each element	Element weighting (as % of component)	
1. Critique of a Practical presentation delivery experience or hands-on exhibit	100%	
Component B Description of each element	Element weighting (as % of component)	
1. Written Report	100%	
If a student is permitted an EXCEPTIONAL RETAKE of the module the assessment will be that indicated by the Module Description at the time that retake commences.		