

## ACADEMIC SERVICES

## MODULE SPECIFICATION

|                               |                                                | Part 1: Bas           | ic Data                   |                                                                    |           |
|-------------------------------|------------------------------------------------|-----------------------|---------------------------|--------------------------------------------------------------------|-----------|
| Module Title                  | Science, The P                                 | ublic and Media       |                           |                                                                    |           |
| Module Code                   | USSJM3-30-M                                    |                       | Level                     | Μ                                                                  | Version 3 |
| UWE Credit Rating             | 30                                             | ECTS Credit<br>Rating | 15                        | WBL modu                                                           | Ile? No   |
| Owning Faculty                | Health and Life Sciences                       |                       | Field                     | Biological, Environmental<br>Sciences and Science<br>Communication |           |
| Department                    | Biological, Biomedical and Analytical Sciences |                       | Module Type               | Standard                                                           |           |
| Contributes towards           | MSc Science C                                  | ommunication          |                           |                                                                    |           |
| Pre-requisites                | None                                           |                       | Co- requisites            | None                                                               |           |
| Excluded<br>Combinations      | None                                           |                       | Module Entry requirements | None                                                               |           |
| First CAP Approval<br>Date    | 2 <sup>nd</sup> February 2016                  |                       | Valid from                | September 2016                                                     |           |
| Revision CAP<br>Approval Date |                                                |                       | Revised with effect from  |                                                                    |           |

| Review Date |  |
|-------------|--|
|             |  |

| Part 2: Learning and Teaching |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |  |
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| Learning<br>Outcomes          | <ul> <li>On successful completion of this module students will be able to:</li> <li>Analyse the opportunities and constraints of a variety of traditional and emerging approaches to science communication (A1, B2)</li> <li>Critique the different social, technological and cultural factors that influence audience engagement with science (B2)</li> <li>Apply conceptualisations of the public to the communication of science (A1, B1, B2)</li> <li>Devise appropriate evaluation strategies matched to types of communication initiative (A1)</li> <li>Create a science communication intervention grounded in appropriate theory and justify this approach (A1)</li> </ul> |  |  |
| Syllabus Outline              | This module explores traditional and emerging routes through which the public<br>encounter science and technology, including science centres and museums, print and<br>broadcast media and digital technologies. Through the use of case studies, students<br>will become acquainted with the wide range of approaches used by science<br>communicators proactively seeking to engage the public with science as well as media<br>where the public may unexpectedly encounter science and technology. Students will<br>also explore the methodologies that can used to evaluate the effectiveness of science<br>communication initiatives.                                         |  |  |

|                                     | The concept of the public will be returned to in this module with a view to<br>understanding current conceptualisations of 'public' audiences (e.g. RCUK data on<br>publics for science). Issues of attracting audiences as well as current dilemmas<br>surrounding the fragmentation of publics will be examined. Linked to this, the module<br>will explore emerging opportunities to communicate science via the Internet and digital<br>technologies, and consideration given to how tools, such as social media, can be used<br>to increase awareness and engagement with more traditional science communication<br>formats.<br>The ways that science is represented in a variety of different traditional and newer<br>media will be investigated with a view to exploring the differences in the media<br>themselves (for example, how the media link to the socio-cultural pyramid), their<br>strengths and weaknesses, and the role of the public, as both media consumers and<br>creators. |
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| Contact Hours                       | Face to face teaching on Science, the Public and Media is delivered in three separate short intense engagements, typically lasting three days. These 3-day blocks comprise a mix of lectures, seminars, workshops and field trips. The standard teaching day on the module is 9.30 – 16.30. Additional directed study/preparation (independent and group) is required in the 'free' time and evenings during block teaching to complete 'twilight' tasks and prepare for taught workshops held later in the block. This is in addition to independent and directed study between teaching blocks.                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                     | Synchronous or asynchronous group work organised in the student's own time will<br>be required to support assessed work. These collaborations with other students will<br>have specific opportunities for feedback from academic tutors, through submission of<br>assignments for formative feedback. In addition, at least one independent study task<br>will be provided where students can submit work for formative feedback from<br>academic staff.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                     | Together these activities comprise approximately 80 hours contact time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                     | Approximately a further 220 hours of independent and directed study time are required for this module. This comprises directed reading or other study provided through the online virtual learning environment, as well as independent and group study required to complete the Presentation of a Science Communication Intervention and Report assessments.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Teaching and<br>Learning<br>Methods | <b>Scheduled learning</b> on this module occurs in three block teaching sessions. During the intensive teaching sessions, material will be delivered using a mixture of lecture, seminar and workshop sessions as well as field trips/visits as appropriate to the content being discussed. Additional practical preparation and directed study is required during the intensive teaching block to support learning and participation in class.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                     | Scheduled teaching sessions emphasise discussion, exploring the motivations of individuals and organisations that engage in science communication activity and analysing examples of both good and bad practice through examination of case studies.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                     | <b>Independent Learning</b> is required to support the intensive teaching periods. Guided and independent reading will provide a suitable background on the subject and enable students to examine theoretical concepts in detail.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Key Information<br>Sets Information | Key Information Sets (KIS) are produced at programme level for all programmes that<br>this module contributes to, which is a requirement set by HESA/HEFCE. KIS are<br>comparable sets of standardised information about undergraduate courses allowing<br>prospective students to compare and contrast between programmes they are                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

|                            | interested in app                                                                                                                                                                                                                                                                                               | lying for.                                                                                                                                                                                               |                                                                                                                                                                            |                                                                                                                                             |                                                                                                                                      |                                                                                                         |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
|                            | Key Inform                                                                                                                                                                                                                                                                                                      | ation Set - Mo                                                                                                                                                                                           | odule data                                                                                                                                                                 |                                                                                                                                             |                                                                                                                                      |                                                                                                         |
|                            |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                          |                                                                                                                                                                            |                                                                                                                                             |                                                                                                                                      |                                                                                                         |
|                            | Number of o                                                                                                                                                                                                                                                                                                     | credits for this                                                                                                                                                                                         | module                                                                                                                                                                     |                                                                                                                                             | 30                                                                                                                                   |                                                                                                         |
|                            | Hours to be allocated                                                                                                                                                                                                                                                                                           | Scheduled<br>learning and<br>teaching<br>study hours                                                                                                                                                     | Independent<br>study hours                                                                                                                                                 | Placement<br>study hours                                                                                                                    | Allocated<br>Hours                                                                                                                   |                                                                                                         |
|                            | 300                                                                                                                                                                                                                                                                                                             | 80                                                                                                                                                                                                       | 220                                                                                                                                                                        | 0                                                                                                                                           | 300                                                                                                                                  |                                                                                                         |
|                            | The table below<br>constitutes a -<br>Written Exam: U<br>Coursework: W<br>Practical Exam:<br>practical exam<br>Please note that<br>necessarily refle<br>of this module de                                                                                                                                       | Unseen writte<br>ritten assignr<br>: Oral Assess<br>this is the to<br>ct the compo                                                                                                                       | en exam, open<br>ment or essay<br>sment and/or p<br>tal of various t                                                                                                       | book written<br>, report, disse<br>presentation, p<br>ypes of asses                                                                         | exam, In-class<br>rtation, portfoli<br>practical skills<br>sment and wil                                                             | s test<br>io, project<br>assessment,<br>I not                                                           |
|                            | ٢                                                                                                                                                                                                                                                                                                               | Total assessm                                                                                                                                                                                            | ent of the modu                                                                                                                                                            | ıle:                                                                                                                                        |                                                                                                                                      | -                                                                                                       |
|                            |                                                                                                                                                                                                                                                                                                                 | Nritten exam a                                                                                                                                                                                           | ssessment per                                                                                                                                                              | centage                                                                                                                                     | 0%                                                                                                                                   |                                                                                                         |
|                            | -                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                          | sessment perc                                                                                                                                                              |                                                                                                                                             | 60%                                                                                                                                  |                                                                                                         |
|                            |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                          | assessment pe                                                                                                                                                              |                                                                                                                                             | 40%                                                                                                                                  |                                                                                                         |
|                            |                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                          |                                                                                                                                                                            |                                                                                                                                             | 100%                                                                                                                                 |                                                                                                         |
| Reading<br>Strategy        | You will receive s<br>access will be pro-<br>You will be given<br>information (inclu<br>you will be expect<br>in order to meet to<br>independent read                                                                                                                                                           | ovided via the<br>regular hand<br>uding a full re<br>cted to develo<br>the learning e                                                                                                                    | e module virtu<br>douts and othe<br>ference lists) v<br>op and then m                                                                                                      | al learning en<br>er materials in<br>will be provide<br>ake use of you                                                                      | vironment or t<br>class, and fur<br>d via UWEonl<br>ur information                                                                   | he UWE library<br>ther supporting<br>ine, however<br>gathering skills                                   |
| Indicative<br>Reading List | Indicative reading<br>Allan, S. (2002) /<br>Black, G. (2005)<br>Abingdon, Routle<br>Bowater, L. and<br>Scientists. Wiley-<br>Bucchi, M (1998)<br>communication, T<br>Bucchi, M. and T<br>and Technology.<br>Caulton, T. (1998)<br>Holliman, R., Wh<br>Science Communi-<br>Holliman, R., Tho<br>Science Communi- | Media, Risk a<br>The engagin<br>edge.<br>Yeoman, K. (<br>Blackwell: C<br>Science and<br>London: Rout<br>Trench, B. (ed<br>Oxon: Rout<br>Mands on a<br>itelegg, E., S<br>nication in the<br>omas, J. Smic | g museum: de<br>2013) Science<br>hichester.<br>d the Media: A<br>tledge<br>ls) (2008) Har<br>edge<br>Exhibitions. Lo<br>canlon, E. Sm<br>e Information J<br>dt, S. Scanlon | eveloping mus<br>e Communicat<br>Iternative rout<br>adbook of Pub<br>ondon: Routleo<br>nidt, S. and Th<br>Age. Oxford: C<br>, E., and White | eums for visite<br>tion: A Practic<br>res in scientific<br>lic Communica<br>dge<br>omas, J. (200<br>Dxford Univers<br>elegg, E. (200 | or involvement.<br>al Guide for<br>ation of Science<br>9) Investigating<br>sity Press.<br>8) Practising |

| <ul> <li>Oxford: Oxford University Press.</li> <li>Katz, J.E., LeBar, W., Lynch, E. (2011). <i>Creativity and Technology: social media, mobiles and museums</i>. Edinburgh: Museums ETC,</li> <li>Nelkin, D. (1995) <i>Selling Science: How the press cover science and technology</i>. New York: Freeman</li> <li>Schiele, B., Claessens, M., and Shunke, S. (eds) (2012) <i>Science Communication in the world: practices, theories and trends</i>. Dusseldorf: Springer Verlag</li> <li>Weaver, S. (2007). <i>Creating great visitor experiences: a guide for museums, parks, zoos, gardens and libraries</i>. Left Coast, Walnut Creek Calif.</li> <li>Wilkinson, C. and Weitkamp, E. (2016) <i>Creative Research Communication</i>.</li> </ul> |
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| Part 3: Assessment  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Assessment Strategy | Strategy:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |
|                     | Assessment on Science, the Public and Media is assessed through three assignments, a group presentation, a reflection on group roles plus annotated bibliography and an individual report.                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|                     | <ul> <li>Assessment A1: group presentation (20 minutes) is designed to assess the following learning outcomes for the module: <ul> <li>Apply conceptualisations of the public to the communication of science</li> <li>Create a science communication intervention grounded in appropriate theory and justify this approach</li> <li>Devise appropriate evaluation strategies matched to types of communication initiative</li> </ul> </li> </ul>                                                                                                                                                                             |  |
|                     | Assessment B1: Reflection on group role plus annotated bibliography is designed to develop professional skills related to critiquing your own work as well as allowing students to demonstrate their personal learning in relation to science communication theory. The annotated bibliography presents the sources consulted by the individual student as part of their contribution to the group presentation.                                                                                                                                                                                                              |  |
|                     | <ul> <li>Assessment B2 is to produce a report on a specific type of science communication intervention (3000 words). This might take the form of a media analysis or analysis of digital content and is designed to assess the following learning outcomes: <ul> <li>Analyse the opportunities and constraints of a variety of traditional and emerging approaches to science communication</li> <li>Critique the different social, technological and cultural factors that influence audience engagement with science</li> <li>Apply conceptualisations of the public to the communication of science</li> </ul> </li> </ul> |  |
|                     | Inclusion of an oral presentation and written assignment provides variety of<br>assessment types on this module and contributes to the diversity of<br>assessments on the programme as a whole. The inclusion of group work<br>encourages students to develop their team work skills, contributing to a<br>programme learning outcome. Presentation marks will be allocated equally to<br>all members of the group; individual marks will be allocated to the self-<br>reflective statement. Combining this with an individual assignment ensures<br>students must demonstrate their abilities.                               |  |

| mponent B2 |                                      |  |
|------------|--------------------------------------|--|
| A:<br>40   |                                      |  |
|            |                                      |  |
|            | ement weighting<br>s % of component) |  |
|            | 100                                  |  |
|            | ement weighting<br>s % of component) |  |
|            | 20                                   |  |
|            | 80                                   |  |
|            |                                      |  |

| Component A (controlled conditions) Description of each element | Element weighting<br>(as % of component) |
|-----------------------------------------------------------------|------------------------------------------|
| 1. Individual presentation                                      | 100                                      |
|                                                                 |                                          |
| Component B<br>Description of each element                      | Element weighting<br>(as % of component) |
| 1. Reflective Statement plus annotated bibliography             | 20                                       |
|                                                                 |                                          |

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.