Programme Specification

Section 1: Basic Data

Awarding institution/body	University of the West of England, Bristol
Teaching institution	University of the West of England, Bristol
School responsible for programme	School of Life Sciences
Programme accredited by	University of the West of England
Highest award title	MSc Science Communication
Default award title	
Interim award title	PGDip Science Communication PGCert Science Communication
Modular Scheme title (if different)	
UCAS code (or other coding system if relevant)	
Relevant QAA subject benchmarking group(s)	N/A
On-going/valid until* (*delete as appropriate/insert end date)	Ongoing
Valid from (insert date if appropriate):	September 2010

Authorised by: SLS Quality and Standards Committee **Date:** April 2010

Version Code: 3.0

Section 2: Educational aims of the programme

The MSc Science Communication provides an opportunity for students from both scientific and non-scientific backgrounds to explore the theory and practice related to the communication of science at postgraduate level.

Following a common grounding, students are able choose two optional modules from the following list: New Opportunities in Science Communication, Broadcasting Science, Writing Science and Hands-on Science Communication. These practical modules provide students with the opportunity to build a portfolio of skills and expertise required by science communication practitioners.

The programme is designed for part-time and full-time study and seeks to draw and build on the experience of students, regardless of whether their current role includes science communication.

The specific aims of the programme are to:

- Examine the concepts and principles upon which the effective communication of science is based
- Analyse the scope and purpose of science communication and encourage a critical evaluation of the approaches studied
- Provide an opportunity for postgraduate students from a range of backgrounds to develop the skills required to communicate science in their chosen context
- Provide an innovative mode of attendance designed to maximise the programmes accessibility
- Build on the previous experience of students and encourage learning at work
- Encourage students to develop the ability to conduct independent enquiry
- Structure and underpin the curriculum using a balance from current consultancy and research

Section 3: Learning outcomes of the programme

The award route provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the following areas:

A Knowledge and Understanding

Learning outcomes	Teaching, Learning and Assessment Strategies
A Knowledge and understanding of: 1. The concept of 'publics' and its importance to science communication 2. The role of the media in contributing to the public awareness of science and scientific issues 3. Different models and motives for taking science directly to the public 4. Evaluation methodologies for science communication initiatives 5. Different social and cultural contexts in which science is communicated 6. The impact of scientific uncertainty on the communication of science 7. The role of science in society	**Teaching/learning methods and strategies:** Acquisition of all outcomes is through a combination of lectures, seminars, tutorials, discussions, workshops, course work and student-centred learning. Students are expected to take an active role in developing and running workshop and seminar sessions. As would be expected of a masters level course, students are expected to undertake independent reading both to supplement and consolidate what is being taught/learned and to broaden their individual knowledge and understanding of the subject. **Assessment:** Testing of the knowledge base is through assessed coursework (**1,6,7**), seminar presentation (**2, 5**), project plan and report (**4,5**) case study examination (**1, 3, 5, 7**), timed essay (**3,4,5, 7**), timed writing assignment (**2**) and Broadcast project and self-evaluation (**2**,**5**).

B Intellectual Skills

B Intellectual Skills	**Teaching/learning methods and strategies**
1. Develop conceptual, cognitive and analytical skills to M level 2. Demonstrate independent and self-directed learning 3. Evaluate the effectiveness of science communication initiatives 4. Apply their knowledge to the creation of novel means of communicating science 5. Develop a reflexive and critical approach to evaluating their own and others work	Intellectual skills are developed through the range of teaching and learning strategies outlined in A above. In addition, case study analysis, problem solving exercises, peer and self-evaluation, project planning, and delivery are used to develop intellectual skills. Skill (**2**) is specifically developed by involving students in the development and management of seminar sessions. Students' reflexive and critical capacities (skill **5**) are developed by evaluating their contribution to group tasks and evaluating each other's written work. Skills **3** and **4** are developed through workshop sessions and mini-projects. **Assessment** A variety of assessment methods is employed. The use of reflective portfolios in two modules is specifically designed to assess skill (**5**) as is the Broadcasting Project and self-evaluation. Skill (**2**) is assessed in the report for the project module, seminar presentations and project proposal. Case study examinations are used to assess skills **1** and **3**. Skill (1) is further assessed in the project proposal, report and seminar presentations. Project plan and report and writing assignment are used to assess skill **4**.

C Subject, Professional and Practical Skills

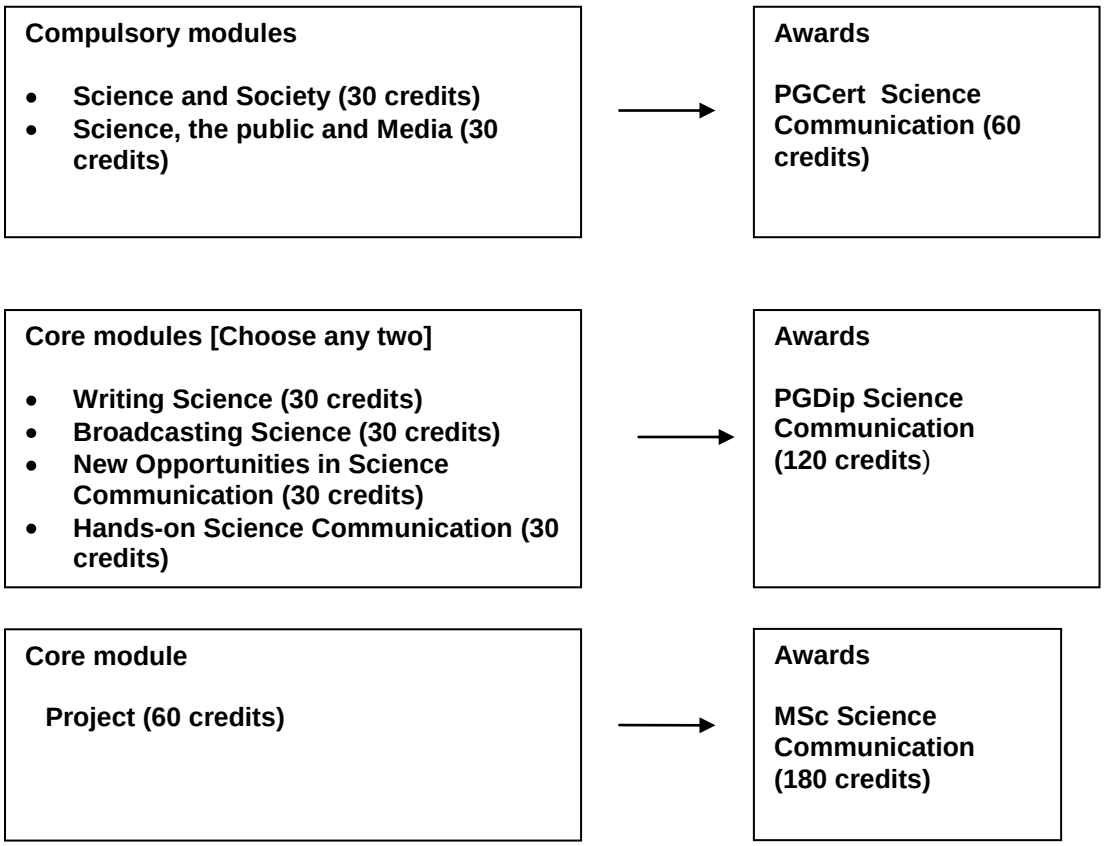
C Subject/Professional/Practical Skills	**Teaching/learning methods and strategies**
1. Justify their choice of method/medium to address a specific science communication need 2. Evaluate the effectiveness of various methods of reaching a specific public 3. Interpret scientific information intended for a specialist audience and present this information at a level and in a style suitable for a variety of lay audiences 4. Critically analyse issues relating to the presentation of scientific risk to the public 5. Explain the relationship between formal and informal science education in the context of science communication 6. Synthesise information from a variety of sources into a coherent piece of science communication	Subject, professional and practical skills are developed through the range of teaching and learning strategies outlined in Sect3A above. Additionally, the intensive teaching blocks provide an opportunity for real-time simulation of professional practice and acquisition of practical skills. In addition, case studies will be used to aid acquisition of skills **1**, **2**, **4** and **6**. Skills **3** and **6** will also be developed using group work. **Assessment** Course work assessments are designed to test skills **1, 2, 3, 4, 5 and 6**. In addition, skills **1** and **2** are assessed by Project Plan and report and writing assignment. Skill **3** is assessed by Writing Assignments, portfolios Broadcast project and Project Plan and report. Skill **6** is assessed by Broadcast project, Writing Assignments and Seminar Presentation. Skill **4** is assessed by Writing Assignments.

D Transferable Skills and other attributes

D Transferable skills and other attributes	**Teaching/learning methods and strategies**
1. Communicate effectively using a variety of methods 2. Plan and manage projects effectively 3. Use technology effectively for both communication and information retrieval 4. Manage own time effectively	Transferable skills are developed through the range of teaching and learning strategies outlined in Sect 3A above. Skills **1** and **3** are particularly developed in the practical modules by involving students in the running of seminar sessions, writing tasks with tutor and peer critiques, creating broadcast quality programmes and presenting and justifying project ideas. The intensive teaching style allows additional support for Skill **2** to be provided through the use of real-time project development. Time management (Skill **4**) is developed throughout the course through the use of directed and independent learning, as well as specifically through one-to-one tutoring on the project. **Assessment** Skill **1** is assessed in Portfolios, Writing Assignments, Seminar Presentations and Project Plan assessments. Skill **2** is assessed in by Project Plan and report, Broadcast Project and Project Report. Skill **3** is assessed in seminar presentations, Project report, Portfolios and Project Plan. Time management (Skill **4**) is assessed in Seminar presentations, Project Report and Portfolios.

Section 4: Programme structure

STRUCTURE DIAGRAM



Section 5: Entry requirements

Applicants will normally have an Honours degree awarded by a UK institute of higher education of at least lower second status or equivalent. All will be interviewed.

Section 6: Assessment Regulations

Academic Regulations and Procedures 2010/11 (Academic Registry)

Section 7: Student learning: distinctive features and support

The face to face learning time associated with each module will be delivered in three separate short intense engagements, typically lasting three days. However, the duration of the intense engagements will vary depending on the requirements of the module. In addition, in cases of low student numbers, teaching and learning methods will be adapted to incorporate a stronger element of independent study, which will be supported by tutor-led workshops combined with case studies and site visits as appropriate. These intense learning periods will normally be held at the Frenchay campus but may be held elsewhere when access to specialist facilities and equipment is required.

The teaching and learning strategy is designed to promote active learning and stimulate integration, exploration, innovation and reflexivity across disciplinary boundaries. Teaching sessions will involve workshop and seminar formats that allow for small group discussion. Students will be encouraged to become actively involved in running and managing sessions, and techniques such as role plays, dissection of case studies, formal presentations and debates will be used to explore critical content and develop practical skills. Guest speakers will provide a practical examination of topical issues. Workshops will be supported by guided reading of relevant materials and written exercises, some of which will form the course work assessment elements of the programme. The intensive way in which each module will be delivered will make it possible for students to both devise and then present material within the two-three day time frame.

One-to-one tutorials, the Blackboard learning environment, email, telephone contact and a mentoring scheme will provide support and guidance between intensive sessions. Students will be encouraged to identify a peer-partner to provide additional support.

Section 8 Reference points/benchmarks

- **Qualification descriptors used in QAA Framework for Higher Education Qualifications**

Students taking the MSc Science Communication will be expected to study at the cutting edge of this rapidly developing multi-disciplinary subject area. Successful completion of the degree will require students to deal with complex scientific issues and how these should or could be communicated to wider audiences; this requires an element of creativity as well as rationally and sensitively tackling and solving specific communication problems.

The learning outcomes have been designed with the QAA Framework for Higher Education Qualifications in mind.

- **Subject benchmarks**

N/A for postgraduate awards. However, the award team has made reference to the QA benchmark statement for Communication, Media, Film and Cultural Studies, Biosciences and for Earth Sciences, Environmental Sciences and Environmental Studies. These offer guidance on the level of communication skills that can be expected of graduates in these disciplines. These have been used as a starting point from which to build more in depth and specialised skills.

- **University teaching and learning policies and staff research projects**

In line with the University Learning and Teaching strategy, the course has been devised using an innovative mode of attendance that will facilitate participation of students undertaking the course while in full or part-time employment. The block-release mode proposed has been shown to be successful for the University's part-time MBA programmes and other professional courses (e.g. LLM Legal Aspects of Medical Practice, Cardiff University).

The teaching team involves full-time academic staff drawn from across the University and includes contributions from visiting practitioners and theoreticians. This combination ensures that the teaching team can provide both the academic knowledge and practical skills and expertise to deliver a course which combines theory and practice in science communication. All staff have specific expertise in their subject area appropriate to M level provision; this ranges from traditional academic research through to current engagement in the professional practice of science communication. Examples include projects such as 'Science on Buses' and the Cheltenham Festival of Science as well as a research project examining the sources used by science writers. Members of the course team have an international reputation for creative approaches to science communication and contributed to UoA 65 that achieved a rating of 4 in the 2001 RAE submission.

University staff are encouraged to develop as teachers and managers of learning, as well as researchers and professionals in their subject area. Staff development includes a personal review via the appraisal and development scheme, in house training and external opportunities. Each member of staff may call upon development funds to support attendance at conferences etc. The University strongly endorses membership of the Institute of Learning and Teaching (ILT) and supports staff at all levels of development to attain membership. New staff members undertake a one-year Professional Development PGCert Award, which is recognised by the ILT.

UWE has strong links with a wide spectrum of local, regional national and international organisations that specialise in science communication. In the UK these include: @Bristol, Techniquest (Cardiff), The Royal Society of London, The Institute of Physics, The Royal Society of Chemistry, The Wellcome Trust, The British Council, COPUS and The Office of Science and Technology. Overseas partners and collaborators include: The Beijing Commission for Science and Technology, The University of Zagreb, The, National Institute of Science and Technology (Washington), the Exploratorium (San Francisco), La Cite du Science (Paris), Technopolis (Brussels) and the European Commission.

- **Employer interaction and feedback**

Science communication as a discipline is rapidly growing and developing. The UK is taking a leading role in this emerging discipline, though there is also strong interest elsewhere, particularly in Europe and the USA. Excellent connections with academic and practicing science communicators throughout the world will ensure that the course provides an international perspective and takes a wide ranging view of developments and issues.

The course team also has extensive links with a range of potential employers – this network has been utilised for purposes of market research to ensure that the course meets employers' needs and expectations (see Part 3 of the documentation for a summary of the market research undertaken for this award). Regular informal contact with potential employers, for example the Learned Societies, local and national media organisations, Science festival organisers and Directors, Science Centres and Museums and science-oriented Public Relations Consultancies will ensure that the course continues to discuss the theory and build the practical skills they require.

This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of individual modules can be found in module specifications. These are available on the University Intranet.

Programme monitoring and review may lead to changes to approved programmes. There may be a time lag between approval of such changes/modifications and their incorporation into an authorised programme specification. Enquiries about any recent changes to the programme made since this specification was authorised should be made to the relevant Faculty Administrator.