PROGRAMME SPECIFICATION

Part 1: Basic Data	
Awarding Institution	University of the West of England, Bristol
Teaching Institution	University of the West of England, Bristol
Delivery Location	Frenchay Campus, University of the West of England, Bristol.
Study abroad / Exchange / Credit recognition	n/a
Faculty responsible for programme	Health and Applied Sciences
Department responsible for programme	Biological, Biomedical and Analytical Sciences
Modular Scheme Title	n/a
Professional Statutory or Regulatory Body Links	n/a
Highest Award Title	MSc Science Communication
Default Award Title	n/a
Fall-back Award Title	n/a
Interim Award Titles	PGDip Science Communication PGCert Science Communication
UWE Progression Route	n/a
Mode(s) of Delivery	FT / PT

Codes	UCAS:		JACS:
	ISIS2:		HESA:

Relevant QAA Subject Benchmark Statements			
First CAP Approval Date	2nd February 2016	Valid from	September 2016
Revision CAP Approval Date		Revised with effect from	
Version	4.0		
Review Date			

Part 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: Science on Air and on Screen, Science in Public Spaces, and Writing Science. 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

Programme requirements for the purposes of the Higher Education Achievement Record (HEAR)

Based in the world-class Science Communication Unit and led by expert staff currently working in this constantly evolving field, this flexible programme is directly informed by current practice to combine theory and practice, and gives students excellent access to strong industry links. Students leaving this programme are equipped to consider the role of communication in a variety of settings, including via the media, through museums and science centres, community events and festivals, as well as in policy settings and will be equipped with the communication, project management and evaluation skills required of contemporary communicators.

Part 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:

Learning Outcomes:	USSJM-4-30-M SS	USSJM3-30-M SPM	USSJC4-30-M SOAS	USSJYU-30-M SPS	USSJC8-30-M WS	USSJPR-60-M SSCP
A) Knowledge and understanding of:						
The role of science in society	X					X
The concept of 'publics' and its importance to science communication	X	X	X	X		
The role of the media in contributing to the public awareness of science and scientific issues	X	X	X		X	
Different models and approaches for taking science to public spaces		X		X		
The creative use of digital technologies to enhance science communication	X	X	X		X	
Evaluation methodologies for science communication initiatives		X		X		X
Different social, technological and cultural contexts in which science and research is communicated	X	X	X	X	X	X
The impact of scientific uncertainty on the communication of science	X		X		X	
The potential of science communication to interconnect with other disciplines and areas of expertise	X	X	X	X		X
(B) Intellectual Skills						
Develop conceptual, cognitive and analytical skills to M level	X	X	X	X	X	X
Demonstrate independent and self-directed learning	X	X	X	X	X	X
Utilise knowledge and an understanding of past actions to envision how future societies may be shaped	X					X
Apply knowledge to the creation of novel means of communicating science		X	X	X		
Awareness and ability to use creative techniques and spaces		X	X	X		
Develop a reflexive and critical approach to evaluating their own and others work	X	X	X	X	X	X
(C) Subject/Professional/Practical Skills						
Justify their choice of method/medium to address a specific science communication need		X		X		X
Evaluate the effectiveness of various methods of reaching a specific public	X		X	X		X
Synthesise information from a variety of sources into a coherent piece of science communication		X	X	X	X	
Interpret scientific information intended for a specialist audience and present this information at a level and in a style suitable for a variety of audiences		X	X	X	X	
Critically analyse issues relating to the presentation of science to the public	X		X	X	X	
Explain the relationship between formal and informal science education in the context of science communication	X			X		

Part 3: Learning Outcomes of the Programme

	1	2	3	4	5	6
Advance their capacity for independent, evidence-based integrated thinking as the foundation for developing their personal ethical code	X					X
(D) Transferable skills and other attributes						
Communicate effectively using a variety of methods		X	X	X	X	
Plan and manage projects effectively		X	X	X	X	X
Use digital technology effectively for both communication and information retrieval	X	X	X		X	X
Demonstrate how to be an effective team worker		X	X	X	X	
Manage own time appropriately	X	X	X	X	X	X
Ability and knowledge to risk assess and consider ethical best practice			X	X		X
Develop a commitment to lifelong learning in their education and practice	X					X

Part 4: Student Learning and Student Support

Teaching and learning strategies to enable learning outcomes to be achieved and demonstrated

On the MSc Science Communication programme teaching is a mix of scheduled and independent learning. 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. This contact time encompasses a range of face: face activities as described below. In addition a range of other learning activities will be embedded within the programme which, together with the contact time, will enable learning outcomes to be achieved and demonstrated.

Scheduled learning includes lectures, seminars, tutorials, project supervision, practical classes and workshops; fieldwork; and external visits, for example to local museums and science centres. The teaching and learning strategy is designed to promote active learning and stimulate integration, exploration, innovation and reflexivity across disciplinary boundaries. 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. Scheduled sessions may vary slightly depending on the module choices made.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion etc. Scheduled sessions may vary slightly depending on the module choices made.

Description of the teaching resources provided for students

Induction activities are included in the first three day block and include an introduction to key UWE services, such as the library and IT, as well as fostering a sense of team-spirit amongst the student cohort and staff.

Each module is supported by extensive **Blackboard** materials, including for example, additional reading, grey literature, YouTube videos, TED talks, blogs and media materials. In addition students have access to a group area where they can access information on forthcoming seminars and presentations, relevant science communication events and activities, as well as placement and job opportunities.

Modules draw on a range of visiting **academic specialists**. These are drawn from organisations including the Learned Societies, local and national media organisations, Science Centres and Museums and science-oriented Public Relations Consultancies providing both direct input to module content and ensuring that the course continues to discuss the theory and build the practical skills employers require.

Students are supported in their **career progression** through links to external organisations and speakers, opportunities to gather work experience (for example via volunteering with organisations like At-Bristol), and via careers focused activities and

Part 4: Student Learning and Student Support

workshops which assist students to be fully prepared for the employment context of the field.

Students with **specialist needs** are provided with full support by Student Services at UWE including welfare, disability and psychological support and counselling. Students with disabilities or learning differences are needs assessed and any specific learning support measures can be implemented through the support of the programme and module team.

Description of any Distinctive Features

- Combination of theory and practice-based modules;
- Grounded in the research and practice of the Science Communication Unit at UWE;
- Opportunities to consider a wide range of science communication opportunities, digitally, via the media and face-to-face;
- Links and access to a wide range of science communication organisations and academic specialists;
- Occasions to develop specialist practice and research skills.

Part 5: Assessment

Delete one of the following statements as appropriate

A: Approved to [University Regulations and Procedures](#)

Assessment Strategy
Assessment strategy to enable the learning outcomes to be achieved and demonstrated:

Each taught module uses a combination of summative assessments to provide a varied series of opportunities for assessment against the learning objectives of modules. This includes opportunities for students to develop real-world experience, for example, developing live presentations and demonstrations, or creating a portfolio of work. In addition students carry out assessments which develop and assess their critical academic and theoretical grounding, including reflective practice, research design and report writing. All summative assessments are supported by module specific opportunities for formative assessment and feedback. Assessments are scheduled by the programme team at the outset of the academic year in in order to minimise as far as possible clashes in submission dates, and improve the student experience during busy assessment periods.

Some assessments, including the research project, can be carried out in collaboration with a professional science communication organization and therefore encompass a significant element of professional feedback from practicing science communicators and potential employers. The UWE Assessment Cycle Policy is adhered to in assessment and feedback processes.

Assessment Map

The programme encompasses a range of **assessment methods** including in-class written tests, individual and group presentations, the creation of portfolio materials, and practical skills

assessment. These are detailed in the following assessment map:

Assessment Map for MSc Science Communication

		Type of Assessment*									
		Unseen Written Exam	Open Book Written Exam	In-class Written Test	Practical Exam	Practical Skills Assessment	Oral assessment and/or presentation	Written Assignment	Report / Project	Dissertation	Portfolio
Compulsory Modules Level M	**USSJM4-30-M** SS			A (50)				B (50)			
	USSJM3-30-M SPM						A(G) (50)		B (50)		
	USSJPR-60-M SSCP						A2 (20)	A1 (20)		A3 (60)	
Optional Modules Level M	**USSJC4-30-M** SOAS					A1 (G) (30) A3 (G) (20)		A2 (20) A4 (30)			
	USSJYU-30-M SPS						A1 (40)	B1 (24)	B2 (36)		
	USSJC8-30-M WS			A (40)				B2 (G) (20)			B1 (40)

*Assessment should be shown in terms of either Written Exams, Practical exams, or Coursework as indicated by the colour coding above.

Part 6: Programme Structure

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements; interim award requirements and module diet, including compulsory and optional modules

ENTRY

		Compulsory Modules	Optional Modules	Interim Awards
	Year 1	USSJM4-30-M Science and Society	USSJC4-30-M Science on Air and on Screen	PGCert Science Communication *60 credits to include Science and Society and Science the Public and Media.*
		USSJM3-30-M Science, the Public and Media	USSJYU-30-M Science in Public Spaces	
		USSJPR-60-M Science and Science Communication Project	USSJC8-30-M Writing Science [choose any two of the above]	PGDip Science Communication *120 credits to include Science and Society and Science the Public and Media.*

GRADUATION

Part time:

The following structure diagram demonstrates the student journey from Entry through to Graduation for a typical **part time student.**

ENTRY		Compulsory Modules	Optional Modules	Interim Awards
	Year 1	USSJM4-30-M Science and Society		PGCert Science Communication
		USSJM3-30-M Science, the Public and Media		*60 credits to include Science and Society and Science the Public and Media.*
	Year 2		USSJC4-30-M Science on Air and on Screen	PGDip Science Communication
			USSJYU-30-M Science in Public Spaces	*120 credits to include Science and Society and Science the Public and Media.*
			USSJC8-30-M Writing Science [choose any two of the above]	
	Year 2/3	USSJPR-60-M Science and Science Communication Project		

GRADUATION

Part 7: Entry Requirements
The University's Standard Entry Requirements apply with the following additions/exceptions: Students with a minimum of a lower second class honours degree in a relevant subject, including overseas students, will be eligible to apply for the course. Students must meet the minimum English Language requirements of the University for postgraduate study.

Part 8: Reference Points and Benchmarks

Description of *how* the following reference points and benchmarks have been used in the design of the programme:

QAA UK Quality Code for HE
>   National qualification framework
>   Subject benchmark statements
>   Qualification characteristics for Foundation degrees and Master's degrees (if applicable)

University strategies and policies
Staff research projects
Any relevant PSRB requirements
Any occupational standards
>   Reference should be made to the graduate outcomes identified in the QAA-HEA Guidance

External Benchmarks:

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.

As there is not a specific QA benchmark statement for science communication, 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 Strategies and Policies:

In line with the University's teaching and learning policies, 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 research and practice of the Science Communication Unit plays an integral role in teaching over the programme. An overview of current SCU research and practice can be found here: http://www1.uwe.ac.uk/research/sciencecommunicationunit. Current work includes two major European communication projects, schools-based workshops and festival activities, with collaborators including Bristol Zoo Gardens, the Royal Society and Bristol Natural History Consortium. The Science Communication Unit also has an Advisory Group, comprising UWE PVC (Research and Business Engagement), Associate Deans (Research and Innovation), as well as representatives from science centres, practice and professional associations. Teaching programmes are a standing agenda item on the advisory group's annual meeting allowing us to continually inform the programmes on the basis of their recommendations. Members of the programme team have an international reputation for creative approaches to science communication and have regularly contributed to the REF.

Staff attend UWE learning and teaching conferences and events. All new teaching staff within the Unit undertake the UWE ADP and are provided with a mentor. As part of this

Part 8: Reference Points and Benchmarks

scheme, or similar schemes run at other institutions, all staff have undertaken formal peer observation.

Students are pointed to various UWE services for support, including careers, counselling, volunteering, placements, student advice, disability, and the library, amongst others. Care is taken to monitor any UWE schemes of potential relevance to students such as PAL, UWE Futures Award, English Language Support or schemes like Espresso Maths, and these are utilized when they are of relevance to postgraduate students.

Modules keep up-to-date with current UWE policies and procedures. For example, the Science and Science Communication Project module revisits its research ethics advice to students on an annual basis to reflect any changes or updates in UWE or external procedures.

What methods have been used in the development of this programme to evaluate and improve the quality and standards of learning? This could include consideration of stakeholder feedback from, for example current students, graduates and employers.

The programme team gather feedback from current students via a variety of means. Firstly, students are encouraged to complete UWE mechanisms including online module evaluations and SES. Secondly, we ask for their submission of feedback via student reps and SRSF, but also on an 'open door' basis, whereby we encourage students to inform module leaders, and/or the programme leader as soon as an issue is identified to allow for the prompt resolution of issues outside of SRSF timelines. Thirdly, there are a number of evaluation mechanisms incorporated within modules. This includes informal reflection periods at the end of each teaching block where students are asked to provide their impressions and perspectives on the last few days. For some modules students are given a timetable to 'annotate' whereby they can add written comments to each teaching session, a further way to gather direct feedback on specific activities. In other modules evaluation in practice is included, for instance an 'active evaluation exercise' allows students to witness a new evaluation method in action, whilst also contributing insightful quantitative and qualitative feedback on student experiences of the programme overall. Fourthly, when specific advice or information on a point of interest is required the programme team has used Survey Monkey questionnaires for immediate completion (for example when gauging opinions on a new module idea or title).

The programme team keep in contact with graduates of the programme via a dedicated graduate LinkedIn group, which permits the canvassing of opinion of previous students from the programme, and also provides up-to-date insights in the professional development of graduates after course completion. Links to a network of organisations within the field, as well as visiting academic specialists and the Science Communication Unit advisory group provides many and varied opportunities to regularly consult with current employers on any programme developments.

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, available on the University's website.