



Module Specification

Science Communication

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Part 1: Information

Module title: Science Communication

Module code: USSKCE-15-3

Level: Level 6

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Health & Applied Sciences

Department: HAS Dept of Applied Sciences

Partner institutions: None

Delivery locations: Not in use for Modules

Field: Applied Sciences

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: The aim of this module is to develop students' understanding of the interface between science and society. The module will use a case study approach in order to achieve in-depth analysis of how the public has been involved

with controversial scientific issues, both contemporary and in the (recent) past.

The module aims to provide future scientists with practical skills relating to communicating science built through the case studies (e.g. written skills, for example in the form of news stories, and skills in organizing a science communication event such as an exhibition).

Outline syllabus: Students will examine areas where science has become controversial (e.g. fracking, forensics, robotics, stem cell research) with a view to exploring the roles of scientists, the media, political/governmental publics and various 'lay' publics in the generation and propagation scientific controversy. Topics may change from time to time to ensure that the ones featured best illustrate how controversy arises at the science and society interface and to ensure that contemporary issues are covered. Focusing on contemporary issues will allow students to track the issue in the media and will provide students with an opportunity to explore the role the media plays in developing scientific issues.

For each controversy covered, the curriculum might include:

- The scientific concepts behind the issue
- Scientific basis for the controversy
- Development of the controversy - including political aspects as appropriate
- Issues of risk and risk perception
- Public opinion
- Locus of the debate
- Media coverage

Students will thus be able to use clear examples to explore the impact of the media on society and in particular as a source of informal learning about science and its role in science communication. Students will also explore other public spaces, in particular theatre and public debates, as sites for communication about controversial science issues and will evaluate the role of public consultation in developing debates about

controversial scientific issues.

The module aims to provide future scientists with practical skills relating to communicating science built through the case studies (e.g. written skills, for example press releases and posters, and oral skills, such as presentation and debate).

Part 3: Teaching and learning methods

Teaching and learning methods: This module will be delivered primarily using mini-lectures and practical workshops.

Scheduled Learning

Considerable emphasis will be placed on developing understanding of the contexts in which science is communicated. A mini-lecture will be provided for each case study providing the background information necessary for students to understand the implications for communication of that scientific issue.

Workshop sessions will be designed to simulate practical communication situations, such as when a scientist is interviewed by the media. Formative assessment opportunities, including opportunities to present ideas in workshops, will help encourage students to develop the ability to critique their own and peers' approaches to science communication.

Independent Learning

In class teaching and learning will be supplemented by independent learning. This will include exploration of a variety of science communication methodologies.

Students will be expected to read key texts and conduct research for discussion in workshops.

Students will be provided with milestones for formative feedback over the module, which will encourage continuous working on their assessment.

It is expected that completion of formative feedback opportunities, engagement with

printed and online resources and pre-research for activities in workshops will take students to the notional 150 hours of study associated with this module.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Analyse the 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

MO2 Appreciate the challenges faced by both scientists and science communicators in relation to scientific issues

MO3 Analyse the role of scientific uncertainty and scientific controversy in the development of a public controversy

MO4 Design and evaluate strategies for communicating science to the public.

MO5 Analyse the role of the media in creating scientific controversy

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/usskce-15-3.html) via the following link <https://uwe.rl.talis.com/modules/usskce-15-3.html>

Part 4: Assessment

Assessment strategy: Assessment

Students are required to submit a portfolio for assessment comprising two workshop outcomes and an essay. This will include the outcomes of set tasks throughout the module.

Assessment task A: Workshop Outcomes 60%

The workshop outcome will build upon two of the five workshop activities undertaken in the module. Workshop outcomes include activities such as writing a news article, planning a new media intervention or designing a data collection approach.

Due to the differences between the activity types investigated during the workshops, the formats required may vary. An indication is given within the module handbook of the format for each of the workshop outcomes and how it will meet the marking criteria.

Assessment task B: Essay 40%

Students will complete an essay which demonstrates their analysis skills, understanding of science communication theory and specific understanding on one of the case studies considered in the module.

Students will be provided with a series of questions from which they will answer one.

Students are informed at the start of the module that the essay and the workshop outcomes must consider different controversial science case studies.

Assessment components:**Written Assignment (First Sit)**

Description: Workshop Outcome 2 (750 words)

Weighting: 42 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3, MO4, MO5

Written Assignment (First Sit)

Description: Workshop Outcome 1 (750 words)

Weighting: 18 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO3, MO4, MO5

Written Assignment (First Sit)

Description: Essay (1000 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO5

Written Assignment (Resit)

Description: Workshop Outcome 2 (750 words)

Weighting: 42 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO3, MO4, MO5

Written Assignment (Resit)

Description: Workshop Outcome 1 (750 words)

Weighting: 18 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO3, MO4, MO5

Written Assignment (Resit)

Description: Essay (1000 words)

Weighting: 40 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO5

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Integrated Wildlife Conservation {Top-Up} [Frenchay] BSc (Hons) 2023-24

Biomedical Science [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Biomedical Science [Sep][FT][Frenchay][4yrs] MSci 2021-22

Forensic Science [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Forensic Science [Sep][FT][Frenchay][4yrs] MSci 2021-22

Environmental Science [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Biological Sciences [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Wildlife Ecology and Conservation Science [Sep][FT][Frenchay][4yrs] MSci 2021-22

Environmental Science [Sep][FT][Frenchay][4yrs] MSci 2021-22

Biological Sciences [Sep][FT][Frenchay][4yrs] MSci 2021-22

Wildlife Ecology and Conservation Science [Sep][FT][Zoo][3yrs] BSc (Hons) 2021-22

Forensic Science [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Biological Sciences [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Biological Sciences [Sep][SW][Frenchay][5yrs] MSci 2020-21

Biomedical Science [Sep][SW][Frenchay][5yrs] MSci 2020-21

Biomedical Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

Biomedical Science [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Biomedical Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2020-21

Wildlife Ecology and Conservation Science [Sep][SW][Frenchay][5yrs] MSci 2020-21

Forensic Science [Sep][SW][Frenchay][5yrs] MSci 2020-21

Forensic Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2020-21

Environmental Science [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Environmental Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

Wildlife Ecology and Conservation Science {Foundation} [Sep][FT][Zoo][4yrs] BSc (Hons) 2020-21

Wildlife Ecology and Conservation Science {Foundation} [Sep][FT][Frenchay][5yrs]
MSci 2020-21

Environmental Science {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2020-21

Environmental Science [Sep][SW][Frenchay][5yrs] MSci 2020-21

Biological Sciences {Foundation} [Sep][FT][Frenchay][5yrs] MSci 2020-21

Forensic Science {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

Wildlife Ecology and Conservation Science [Sep][SW][Zoo][4yrs] BSc (Hons) 2020-21

Biological Sciences {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

Wildlife Ecology and Conservation Science {Foundation} [Sep][SW][Frenchay][6yrs]
MSci 2019-20

Forensic Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20

Biological Sciences {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20

Biological Sciences {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2019-20

Biomedical Science [Sep][PT][Frenchay][6yrs] BSc (Hons) 2019-20

Biomedical Science [Sep][PT][Frenchay][8yrs] MSci 2019-20

Biomedical Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20

Biomedical Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2019-20

Forensic Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2019-20

Environmental Science {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons) 2019-20

Environmental Science {Foundation} [Sep][SW][Frenchay][6yrs] MSci 2019-20

Wildlife Ecology and Conservation Science {Foundation} [Sep][SW][Zoo][5yrs] BSc
(Hons) 2019-20