

# HPSC0008 Science Communication and Public Engagement

## Course Syllabus

2019-20 session | Dr Simon J Lock | [simon.lock@ucl.ac.uk](mailto:simon.lock@ucl.ac.uk)

### Course Information

This interdisciplinary course introduces the public dimensions of science and technology. Drawing on sociology, history, cultural, media and communication studies it explores the relationship between the professional world of science and the social, cultural and personal spaces in which science contributes to the shaping of society. It also develops students' critical analysis skills with respect to the communication of science in different public contexts including the news media, museums, fiction and online. Ultimately it aims to develop students' skills in academically interrogating science communication and engagement.

### Basic course information

Moodle Web site:	<a href="https://moodle.ucl.ac.uk/course/view.php?id=38541">https://moodle.ucl.ac.uk/course/view.php?id=38541</a>
Assessment:	Essay (50%), unseen exam (50%)
Timetable:	<a href="http://www.ucl.ac.uk/timetable">www.ucl.ac.uk/timetable</a>
Course tutor:	Dr Simon J Lock
Course Teaching assistants	Eleanor Armstrong and Anna Dadaian
Contact:	<a href="mailto:simon.lock@ucl.ac.uk">simon.lock@ucl.ac.uk</a>   t: 020 7679 3763
Web:	<a href="http://www.ucl.ac.uk/sts/staff/lock">www.ucl.ac.uk/sts/staff/lock</a>
Office location:	22 Gordon Square, Room 2.2
Office hours:	12-1pm Tuesdays and Wednesdays (Term 1)

## Schedule

Session	UCL Week	Topic	Date	Tutorial Activity*
1	6	Introduction to Science in Public	2 <sup>nd</sup> Oct	Introduction to how the tutorials will operate Reflecting on personal involvement in science outside formal studies
2	7	Models of science communication – where did this all come from?	9 <sup>th</sup> Oct	Analysis of historical excerpts of science communication – discussion of models
3	8	Thinking about contemporary science communication and engagement	16 <sup>th</sup> Oct	Analysis of measurement of publics and their “understanding” of science – discussion of models
4	9	What is the science in science communication?	23 <sup>rd</sup> Oct	Discussion of examples (these will be circulated after the lecture)
5	10	Who is a scientist? Who are the public? Who is a communicator?	30 <sup>th</sup> Oct	Discussion of examples (these will be circulated after the lecture)
	11	<b>Reading Week</b>		<b>No lecture or tutorial</b>
6	12	Science in Television and Film	13 <sup>th</sup> Nov	Analysis of science films and television programmes
7	13	Science in Museums	20 <sup>th</sup> Nov	Reporting on a visit to a science centre or museum
8	14	Science in the News	27 <sup>th</sup> Nov	Science in news reporting analysis / Thesis preparation for your assessment
9	15	Science Online	4 <sup>th</sup> Dec	Essay writing preparation
10	16	Science communication in face-to-face contexts	11 <sup>th</sup> Dec	Essay due on 16 <sup>th</sup> December, 5pm

\* Specific instructions relating to each tutorial activity are available on Moodle

## Assessments

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### Summary

	Description	Deadline	Word limit
50%	Essay 1	16 <sup>th</sup> December 2019, 17:00	2500
50%	Written Exam		

### Assignments

#### Critical Essay:

***Write a critical comparison of how a particular scientific topic is communicated within two contrasting communication/engagement formats.***

**Due 16 December 2019, 17:00**

**Word limit: 2500 words**

**Contribution to final mark: 50%**

You might, for example, compare a newspaper feature article with a series of blog posts, a museum exhibit with a popular science magazine article, or a radio programme with a festival comedy science performance. You are free to choose whichever scientific topic and formats are of most interest to you, though the formats must be from different genres (so you can't, for example, select two 'print' media to compare, or two 'online' media, but comparing one offline medium with an online medium provides more points of comparison).

Using science communication theories and academic work to support your argument answer the following questions:

- **Q1:** Who is the communication aimed at? (and what evidence do you have to support this?), and who might be excluded and why?
- **Q2:** How does the medium shape, enhance or constrain what is communicated and to whom?
- **Q3:** In what way(s) is science (re)presented?

Please attach an appendix containing a copy of your chosen examples (or a weblink to where they are accessible). This appendix does NOT count towards your word count.

#### **Guidance on writing a critical review**

You should be addressing some or all of the following aspects in your review:

- Where did your materials come from? Why might this be relevant to the content and how might the same message be different in a different context?

- Who might read/watch it? (what is the intended audience? And what evidence within the piece suggests this?)
- What sort of model of science communication is implied here?
- How does this piece of communication fit with models of public understanding of science?
- How does what you are looking at fit with the historical trends in science, communication and culture that have been discussed in class? What academic papers help you demonstrate this?
- How does this medium of science communication compare to others you have looked at?

To answer these sorts of questions you need to provide evidence. Your evidence in this case will be the content and/or specific features of the piece of science communication. So try to point to the relevant sections/sentences/features of the piece when answering the question.

It is worth bearing in mind that this is a course about science communication, the theory, its practice and its implications. Thus your approach, and work, should focus on this as the main area of analysis. You should never be simply providing a descriptive account of the content of the science communication studied. The content of a piece of science communication is only relevant insofar as it allows you to answer more interesting questions about it (not just what did it say, anyone can read/watch something to answer that!)

Bear in mind also the difference between the research literature and your own experience. This is particularly important when dealing with popular culture or media, subjects which we are all familiar with and have experiences of in our every day lives.

You may experience the mass media and popular culture in one way, and thus form your own opinions about them but this does not mean that your experiences and opinions are representative of everyone else's. Sociology is about society not individuals. So be very wary of making statements like, "the public will think this...", "this won't make sense to the public..." or "this will make everyone think x". You may feel that way, but unless you have concrete evidence backing up such claims, these are simply unsubstantiated assertions based upon one person's experience.

You are at university to study these things in an academic and critical manner, so you should always ground your arguments and observations within the academic literature you have read. You should therefore justify your arguments through such mechanisms as sourcing, citing data, referencing, providing logical justification etc. There is nothing wrong with having personal opinions concerning an issue, but we want to see that you have engaged with the context and issues rather than simply writing a polemic, one-sided and unsubstantiated editorial on the topic! If you want to bring your own opinions or values to bear on your research, you need to make sure that you reflect on how these articulate with other viewpoints or values from within the literature.

### **Criteria for assessment**

The departmental marking guidelines for individual items of assessment can be found in the STS

Student Handbook. Further module specific criteria for assessment can be found on the module Moodle pages.

## Aims & objectives

### Aims

The course aims to impart knowledge and understanding, at an introductory level, of:

- Concepts in public understanding of, and engagement with, science
- Public spaces for science, including the mass media, science museums and everyday life
- Cultural, social and political issues around science communication

### Objectives

By the end of this module students should have:

- Knowledge and understanding of the basic concepts and scope of science communication
- A broad understanding of the cultural, social and political issues around science in public
- Skills in written and spoken communication
- Skills in relating personal experience to the ideas, tools and values of academic research
- Skills in the recognition, collection and analysis of research materials
- Skills in argumentation, listening and constructive dialogue
- Confidence in contributing in class

### Reading list

There is no one book that covers this course.

*Science in Public: Communication, Culture & Credibility* (New York: Plenum/Perseus/Basic Books, depending on the date) by Jane Gregory and Steve Miller provides some useful background: it is a *secondary* text – that is, it collects and comments on the work of many different scholars – and is a guide to the primary literature that you will meet if you go on to study science communication at higher levels. It is also now quite old, so doesn't provide a great picture of contemporary developments, not least the shift to online communication. It is still, however, a great introductory book to help us understand the historical and Western cultural dimensions of science communication

Other useful books include:

- Bell, P., Lewenstein, B. V, Shouse, A. W., & Feder, M. A. (2009). *Learning Science in Informal Environments: People, Places, and Pursuits*. Washington, DC: The National Academies Press. Available from [http://www.nap.edu/catalog.php?record\\_id=12190](http://www.nap.edu/catalog.php?record_id=12190).
- Brake, M. & Weitkamp, E. (Eds.), *Introducing Science Communication*. London, UK:

Palgrave Macmillan.

- Holliman, R., Thomas, J., Smidt, S., Scanlon, E., & Whitelegg, L. (2009). *Practising science communication in the information age: Theorising professional practices*. Oxford, UK: Oxford University Press.

Additionally, Stella Cottrell has published an excellent text that will help you develop your critical thinking skills and essay writing, including worked examples to help you practice these skills. If you haven't read it already we strongly advise that you do so in preparation for your assessments on this course:

- Cottrell, S. (2005). *Critical thinking skills*. Developing effective analysis and argument. Basingstoke, UK: Palgrave Macmillan.

Finally, **essential weekly readings** are available on Moodle. You are expected to have read the relevant texts in advance of each lecture. We have also compiled an extensive set of additional readings which will be provided for each lecture – these will allow you to delve more deeply into specific areas of interest and assist you in your critical review assessment. See each set of lecture slides for details.

### **Course expectations**

Students are expected to attend one weekly lecture and one weekly tutorial session. Practical tasks are set each week for discussion within the tutorials to tie in with the lecture content and further develop your communication skills and understanding. It is mandatory that you come to each tutorial prepared and ready to present and discuss your work. Assistance with writing the required essay will also be given in the tutorial sessions.

### **Important policy information**

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Details of college and departmental policies relating to modules and assessments can be found in the STS Student Handbook [www.ucl.ac.uk/sts/handbook](http://www.ucl.ac.uk/sts/handbook)

All students taking modules in the STS department are expected to read these policies.

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