Department of
Science and Technology Studies

HPSC1008
Science Communication and Public Engagement

Syllabus

Session	Term 1
Moodle site	https://moodle.ucl.ac.uk/course/view.php?id=38541
Timetable	www.ucl.ac.uk/timetable

Description

This interdisciplinary course introduces the public dimensions of science and technology. 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.

Key Information

Assessment	50%	Essay 1
	50%	Unseen 3 hr written exam
Prerequisites	none	

Required texts	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. 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. • 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. See each set of lecture slides for details.

Module tutors

Module tutor	**Dr Simon Lock**
Contact	simon.lock@ucl.ac.uk | t: 020 7679 3763
Web	www.ucl.ac.uk/sts/staff/lock
Office location	22 Gordon Square, Room 2.2
Office hours:	Monday 12pm – 1pm, Tuesday 1-2pm, and by appointment.

Assistants	**Claudia Cristalli**	**Hannah Wills**
Contact	claudia.cristalli.15@ucl.ac.uk	hannah.wills.14@ucl.ac.uk

Aims and 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

Module plan

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. Assistance with writing the required essay will also be given in the tutorial sessions.

Schedule

	UCL Wk	Date	Topic	Tutorial Activity*
1	6	4th Oct	Introduction to Science in Public	Introduction to how the tutorials will operate Reflecting on personal involvement in science outside formal studies
2	7	11th Oct	Science, Communication and Culture	Evidence gathering: is science part of culture?
3	8	18th Oct	Who is the public in science communication?	Comparison of science communication for different intended audiences
4	9	25th Oct	The Public Understanding of Science	Thinking about scientific literacy tests and what they measure
5	10	1 Nov	From Deficit to Dialogue (PUS to PEST)	tbc Opportunity to think about the coursework assessment
	11		**Reading Week**	**No lecture or tutorial**
6	12	15th Nov	Science in the News	Comparison between two different broadcast formats
7	13	22nd Nov	Science in Museums	Reporting on a visit to a science centre or museum
8	14	29th Nov	Citizen Science	Thesis preparation for your assessment
9	15	6th Dec	Science Online	Essay writing preparation
10	16	13th Dec	Science Fiction	Critical review of a science fiction film or TV programme

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

Assessment

Summary

	Description	Deadline	Word limit
50%	Essay 1	19th December 2016, 23:59	2500
50%	Written Exam		

Coursework

Please refer to the STS Student Handbook for further information regarding advice and rules relating to submission of assessments within this module:

http://www.ucl.ac.uk/sts/current-students/documents/sts-student-handbook-1617

Critical Essay:

Write a critical comparison of how a particular scientific news item is communicated within two contrasting media formats.

Due 19 December 2016, 23:59

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 comedy science performance. You are free to choose whichever scientific topic and media formats are of most interest to you, though the media formats must be from different genres (so e.g. you can't select two 'print' media to compare, or two 'online' media, but comparing one print medium with an online medium is fine). Using specific evidence from within your chosen examples, and drawing on wider academic literature, consider the three key questions that underpin this module:

- Q1: How does the medium affect what is communicated?
- Q2: Who has ownership of the content and context in each case?
- Q3: Who does the resulting information reach, and who is excluded?

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?)

What sort of model of science communication is implied here?

How does what you are looking at fit with the historical trends in science, communication and culture that have been discussed in class?

Whose interests are being served here?

How does this piece of communication fit with models of public understanding of science?

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.