

HPSC0036 Engaging the Public with Science

Course Syllabus

2021-22 session | Dr Stephen Hughes|stephen.hughes@ucl.ac.uk

This module focuses on the many different ways in which publics engage with science in face-to-face contexts. Teaching will particularly focus on how scientists can most effectively engage members of the public through direct interactions such as science festivals and museums, and on how specific public groups get involved, and engage with, scientific and medical research. Alongside gaining a practical understanding of how to organize such activities, students will also critically reflect on the theory and context that underpins such activities such as models of publics and audiences, rationales for engagement in different contexts and the wider policy contexts and historical trends.

Basic course information

Moodle Web site:	https://moodle.ucl.ac.uk/course/view.php?id=7441
Assessment:	Two pieces of coursework: 50% - Essay (2,500 words) 50% - Group Project (1,000 words per person and presentation)
Timetable:	Wednesday 11.00am – 12.00pm (GMT)
Prerequisites:	No prerequisites
Required texts:	See reading list below and the online reading list.
Course tutor(s):	Course convenor: Dr Stephen Hughes
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Web:	
Office location:	22 Gordon Square, Room B14
Hughes office hours:	TBC

Schedule

UCL Week	Lecture / Seminar	Seminar Date	Lecture Topic	Seminar Activity
20	1	12/01/22	Why Should We Engage the Public with Science?	Seminar: Experiences of science communication
21	2	19/01/22	Politics and Trust	Seminar: Building trust
22	3	26/01/22	Who is a Citizen in Science?	Guest Lecture: TBC
23	4	02/02/22	Conspiracy Theories and Misinformation	Seminar: Design a conspiracy theory
24	5	09/02/22	Outline of the case study: Introduction to group projects and background to the case study Deadline for Essay - 02/03/22	
25	Reading Week			
26	6	23/02/22	Case Study Visit	
27	7	02/03/22	Reason, Unreason and Denial: Climate Change Engagement	Seminar: Dealing with denial
28	8	09/03/22	Passionate Participation	Seminar: Activism and unruly engagement
29	9	16/03/22	What is Good Public Engagement?	Guest Lecture: TBC
30	10	23/03/22	Group presentations: Discussion and feedback Deadline for Report - 25/04/22	

Assessments

%	Description	Deadline	Word limit
50%	Individual Essay	02/03/22	2,500 Words
50%	Group Project 1. Group presentation (25%) 2. Group project (25%)	25/04/22	1. 10-15 minutes per group 2. Total of 1,000 words

Coursework

Assessment 1: Essay (50%)

Write a scholarly essay, of no more than 2,500 words, discussing the movement from the Public Understanding of Science (PUS) to Public Engagement of Science and Technology (PEST) and beyond, with reference to a specific case study/subject of your choice. The aim of the essay is to analyse the evolution of public engagement, and its various forms, in your chosen context. This includes evaluating the effectiveness of more deliberative modes of dialogue and participation.

Assessment 2: Group engagement piece (50%)

Students will, as a group, choose a scenario from those provided in class, and work together to develop a public engagement activity which they will then be assessed on in two ways:

1. Oral project pitch – in the last session of the module, each group will have 10-15 minutes to pitch their proposed activity. Students will be assessed on the content and form of the presentation. Each member of the group must contribute to a part of the presentation. This is worth 25% of the final module mark. Further details will be provided in class.
2. Group report – each group will also provide a written rationale for their chosen activity, which will incorporate academic perspectives, justifying their approach. This is worth 25% of the final module mark. Further details will be provided in class.

Criteria for assessment

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

Aims & Objectives

Aims

This course aims to engage students with the theory and practice of engaging the public with science via face-to-face activities in multiple public contexts.

Learning Outcomes

On successful completion of this course students should be able to:

1. Demonstrate a practical understanding of face-to-face engagement with science activities in a range of public contexts
2. Offer analysis of the theoretical underpinnings of practical activity in this area.
3. Understand the historical and policy context within which public engagement has developed
4. Evaluate the effectiveness of public engagement processes in particular social contexts
5. Reflect on the purpose, relevance and effectiveness of public engagement via face-to-face activities.

In addition, by the end of the course, students should be able to:

1. Demonstrate research skills appropriate to Year 2 STS modules
2. Demonstrate time and project management, working to tight deadlines
3. Demonstrate independence and initiative in project work

Reading List

For a comprehensive list of readings, please see the 'Library Resources' block on Moodle.

All essential readings will be listed on and available via Moodle, unless specified.

You are encouraged to start your own research to find readings and sources that relate to the module materials, and to take a general interest in key public engagement debates, controversies, and breakthroughs throughout the module. Here are some useful sources to start with:

Key Journals:

Public Understanding of Science: <http://pus.sagepub.com>

Science, technology & human values: <http://sth.sagepub.com>

Science Communication: <http://scx.sagepub.com>

Journal of Science Communication <http://jcom.sissa.it>

Useful websites:

- [Science London](#)
- [Sciencewise](#)
- [Science Grrl](#)
- [The UCL Public Engagement Unit](#)
- [National Co-coordinating Centre for Public Engagement](#)

You can also read and follow blogs, media stories, and social media feeds of relevant institutions and scientific figures.

Outline of lectures:

This section provides additional details about each week's learning.

1. Why Should We Engage the Public with Science?

Lecture: An introductory lecture providing an overview of what public engagement is, and why should we do it. The evolution of mediating and communicating science is examined including the public understanding of science (PUS), to Public Engagement in/with Science and Technology

(PEST), to science democracy, outlining various models and programmes used to frame the process of public engagement.

Essential Reading

- Davies and Horst. 2016. 'Histories: Telling the Story of Contemporary Science Communication'. *Science Communication: Culture, Identity, and Citizenship*.
- Jasanoff. 2010. 'A New Climate for Society'. *Theory, Culture & Society*.

2. Politics and Trust

What is the role of politics in public engagement, and what is the dialogue and agenda involved? This lecture explores the framing of upstream engagement, and D/dialogue, along with the tools used in developing policy and the problems of representation. This session focuses on the role of collaboration in public engagement and involves a seminar to design a public engagement exercise that focuses on trust.

Essential Reading

- Bajaj and Stanford. 2021. 'Beyond Tuskegee — Vaccine Distrust and Everyday Racism'. *The New England Journal of Medicine*.
- Marris. 2015. 'The Construction of Imaginaries of the Public as a Threat to Synthetic Biology'. *Science as Culture*.

3. Who is a Citizen in Science?

Citizens are at the core of contemporary public engagement. In this lecture we examine how the public is involved contemporary engagement. This ranges from citizens' juries and consensus conferences to patient engagement through to participation in policy and decision-making (e.g., Sciencewise). We will consider what these initiatives say about science and citizenship, how citizen science shapes governance, while asking who is considered worthy of participating in dialogue.

Essential Reading

- Todd. 2016. 'An Indigenous Feminist's Take On The Ontological Turn: 'Ontology' Is Just Another Word For Colonialism'. *Journal of Historical Sociology*.
- Strasser et al. 2019. "'Citizen Science'? Rethinking Science and Public Participation' *Science and Technology Studies*.

4. Conspiracy Theories and Misinformation

Conspiracy theories and misinformation pose challenges for public engagement. On the one hand, they offer bottom-up forms of public engagement, on the other they are typically linked

with fascistic modes of politics. How can we separate genuine public concerns about emerging technologies from fascism? What role does science play in the creation of conspiracy theories?

Essential Reading

- Harambam and Aupers. 2015. 'Contesting epistemic authority: Conspiracy theories on the boundaries of science'. *Public Understanding of Science*.
- Lazić and Žeželj. 2021. 'A systematic review of narrative interventions: Lessons for countering anti-vaccination conspiracy theories and misinformation'. *Public Understanding of Science*.

5. Outline of the case study and background

Students will present background information on the case study and discuss.

Essential Reading

- Davies. 2015. 'Participation as Pleasure'. *Remaking Participation*.

6. Case study visit and presentations

Visit to case study, providing an opportunity to review and evaluate it.

No Essential Reading

- None

7. Reason, Unreason and Denial: Climate Change Engagement

Paul Hoggett claims that, "Our collective equanimity in the face of the unprecedented risk posed by climate change is perhaps the greatest mystery of our age". This week we will explore why this is the case. The lecture and seminar will explore the dynamic and affective dimensions of climate change engagement considering how painful feelings like anxiety, grief and loss can create relationships of denial and ambivalence.

Essential Reading

- Hoggett. 2019. 'Introduction'. *Climate Psychology: On Indifference to Disaster*.
- Lertzmann. 2020. 'A Playbook for Difficult Conversations'. Project InsideOut.
- von Trier. 2011. *Melancholia*.

8. Frack Off! Passionate Participation

How can we engage with activists and campaigners around controversial issues like fracking? Can we bring emotions into engagement with scientific issues? Are emotions already present in science? If so, how can scientists reflect on them?

Essential Reading

- Fox. 2010. *Gasland*
- Barnes. 2008. 'Passionate Participation: Emotional Experiences and Expressions in Deliberative Forums'. *Critical Social Policy*.
- Hoggett and Randalle 2018. 'Engaging with Climate Change: Comparing the Cultures of Science and Activism'. *Environmental Values*.
- Burkitt. 2012. 'Emotional Reflexivity: Feeling, Emotion and Imagination in Reflexive Dialogues'. *Sociology*.

9. What is Good Public Engagement?

This lecture explores what our normative commitments are for public engagement, having worked through the module's content up to this point. We will consider how we can evaluate public engagement, both theoretically and practically, and what justice-led engagement might look like.

Essential Reading

- TBC

10. Group presentations

This session will comprise of group presentations. We hope to have time at the end to have a discussion based on the presentations and for feedback from attendees and other group members.

No Essential Reading

- None

Important policy information

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

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