

# HPSC2002

## Science and the Mass Media

### Syllabus

Session	2013-2014
Web site	See Moodle
Moodle site	See Moodle
Timetable	<a href="http://www.ucl.ac.uk/timetable">www.ucl.ac.uk/timetable</a>

### Description

An introduction to media studies for those interested in relations between science and the media. What science gets covered in print, on TV and online? How and why is that material selected? How can we investigate the effects of media coverage on public knowledge of or attitudes towards science? The module gives a short survey of relevant empirical and theoretical work in media studies, and public engagement with science.

### Key Information

Assessment	% 25	Essay (2000 words)
	% 25	Project part 1 (%10) + Project part 2 (%15)
	% 50	Exam
Prerequisites	none	
Required texts	readings listed below	

## Module tutor

Module tutor	Dr Jean-Baptiste Gouyon
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Office hours:	Tuesdays 11-13; Wednesdays 13-15; and by appointment, send an email at <a href="mailto:j.gouyon@ucl.ac.uk">j.gouyon@ucl.ac.uk</a> to make an appointment.

## Aims and objectives

### aims

The aim of the module is to recognize and reflect on the key role mass media play in the production of knowledge. Science in the media is important because it is what links the sciences to society. In this view media are crucial for reaching agreement about what counts as valid and valuable knowledge. They also play an important role regarding the way people can relate to the sciences.

Media texts are the foundation material for this course. Students will be encouraged to critically engage with different media such as newspaper articles, radio broadcasting, film and television documentaries, museum displays, and websites. In each case we will reflect on which scientific knowledge is communicated, how, by whom, and to which audience. This critical analytical work will be supported by an overview of relevant secondary literature.

The teaching method for this course will be through seminars. Each session will focus on one medium, and will include a review of the relevant secondary literature, followed by students' presentations and class discussions.

### objectives

By the end of this module students should be able to:

- critically engage with a range of scientific media texts;
- demonstrate knowledge of the relevant literature for the module;
- demonstrate skills in qualitative discourse analysis;
- appreciate the problems involved in the presentation of science in the media;
- reflect on the role of popular science in the evolution of scientific debate;
- appreciate the part played by the sociology of science in challenging traditional definitions of both 'science' and 'the public'.

## Module plan

Students' responsibilities in this module will revolve around five components: seminar sessions,

practical activities, two personal projects, an essay, and a final exam.

## Seminar sessions

Each session will be devoted to discussing aspects of the communication of science in the mass media in relation to one medium. Typically, each session will start with a summary of the relevant literature for the topic of the day. This will then be followed by a set of activities ranging from student or small group presentations, to class discussions, through to video screenings. It is vital that students conduct the preparatory activities, as these will be necessary for participating in the discussions.

### Session 1 : Introduction – Science in public (Week 21, 15 January 2014).

#### Essential readings:

- Gregory J & Miller S (1998) *Science in Public: Communication Culture and Credibility*, London: Plenum Press, **chapter 4**: 'Popularization, Public Understanding, and the Public Sphere'.
- Silverstone, R.(2005). 'The Sociology of Mediation and Communication'. In Calhoun, C, Rojek, C, and Turner, B (Eds). *The Sage Handbook of Sociology*. London: Sage, pp. 188-207.

After an introduction to the course, and of the main topics to be addressed in the coming weeks, we will look at the newspapers for the day and what science is in them. So please bring in two newspapers each, one tabloid and one broadsheet.

In pairs, you will search the papers for examples of articles that refer in some way to science and technology, and we will spend the rest of the seminar examining them. You will use the following points for guidance as you go through the articles:

- What *kind* of science is under discussion? Is it biology, medicine, physics, psychology, chemistry?
- What *position* does it occupy in the paper? Is it on the front page, in a special science section, an opinion piece, an editorial, an advertisement?
- What *audience* is being addressed? Is the paper a broadsheet or a tabloid? If it's in a special science section, is it targeted to those with a specific interest in science?
- Who is the *author*? Can you tell if the author is a journalist, science journalist, scientist or pundit?
- How would you describe the *language* of the article? What kinds of adjectives are being used? Can you identify any metaphors? Does the headline contrast with the main text?
- How would you describe the *illustrations*? Can you tell why they've been chosen?
- What about the *people*? Who is being quoted in the article? The researchers? Commentators from a rival institution? If it's a health article, are patients' groups represented? Does the article mention critics? If so, what weight are the critical voices given in relation to the rest of the article?

Before next week's seminar, you will write up the conclusions that you have drawn from your examinations. These pieces should be about 500 words long, and you should be prepared to present them to the class next week.

### Session 2 : Science in the news (Week 22, 22 January 2014).

#### Essential reading:

- Gregory J & Miller S (1998) *Science in Public: Communication Culture and Credibility*, London: Plenum Press, **chapter 5**: 'Media Issues in the Public Understanding of Science'.

- Radford, T. (2007) 'Sheherazade: Telling stories, not educating people'. In Bauer, M. and Bucchi, M. *Journalism, Science, and Society*, New York and London: Routledge, p.95-99

Science journalists make science relevant to non-scientists. This is the notion we will examine in this session.

Prepare for this week's seminar, first by completing the reading, and second by spending some time listening to the BBC radio science programme *Science in Action* (on BBC World Service). Podcasts for the programme are available here:  
<http://www.bbc.co.uk/programmes/p002vsnb/episodes/player>.

Whilst listening try to pay attention to the way science news and stories are told. Consider the following questions:

- For any given story, what is brought forward? Try to recognize the 'essential message'. What is the information the speaker starts with?
- How are subsequent information prioritized?
- What elements are listeners provided with in order to relate to the story?

In this week's session we will build on last week's seminar and consider the presentation of science as news. The session will start with a survey of the relevant literature, examining how scientific and technological knowledge are made newsworthy. We will then spend the rest of the seminar trying to produce our own scientific newscasts.

Using the newspapers we looked at last week, we will first pick up a set of science stories. You will then try to write a 200 words version of one of them, which corresponds roughly to a 120 seconds newscast. Some of these texts will be read aloud to the class, which will provide the author with feedback on the informative, but also entertainment value of the piece.

Following the seminar, you will use this work to **record** your own 120 seconds sharp newscast, to be uploaded on Moodle by **28 January 2014** before midnight. This will be part of your assessment for the module.

At the end of the seminar, we will discuss the work that you will have to prepare for the seminar in two weeks from now (week 23), which will consist of group presentations. You will form groups of no more than three in order to go and spend some time at the Science Museum looking at, and reflecting on the way displays are constructed (see separate guidance below).

### **Session 3 : Science in the Mass Media and STS (Week 23, 29 January 2014).**

#### Essential readings:

- Hilgartner, S. (1990). 'The Dominant View of Popularisation: Conceptual Problems, Political Uses'. *Social Studies of Science*, Vol.20 (3): 519-539.
- Bucchi, M. (2008). 'Of deficits, deviations and dialogues. Theories of public communication of science'. In Bucchi, M. and Trench, B. (Eds) (2008). *Handbook of public communication of science and technology*. Abingdon: Routledge, pp. 57-76.

Science and Technology studies demonstrate that science in the mass media is more than a simplified version of scientific knowledge.

Prepare for this week's session by completing the readings and going back through your notes from the previous weeks.

This third session will be devoted to considering the contribution of Science and Technology Studies, and especially of the sociology of scientific knowledge, to our understanding of the communication of science in the mass media. After a summary of the history of science communication up to the Public Understanding of Science movement of the late 1980s, we will look at what came to be labeled the "critical approach to the public understanding of science" and its criticism of the traditional, or top-down model of science communication.

This will be followed by a class debate. Together we will attempt to draw some conclusions concerning the traditional model used to explain how and why science is communicated to the public. Building on what we've learned so far we will concentrate on three main questions:

- What characteristics are generally thought to be typical of 'science in the news' or 'popular science', in terms of presentation, format, content and so on? In other words, how would you define 'popular science'?
- Using both your own investigations and the knowledge you have gleaned from the readings, would you agree that this is an accurate account of how science is presented to the general public?
- Can you identify any aspects of 'science in the news' that are left unexplained by the traditional account? Are you happy that the issues have been thoroughly explored and explained?

You will need to think about these issues as broadly as possible, and it would be interesting if you could introduce your own experiences into the debate. For the purposes of preparation, you are advised to work in small groups, although the debate will **not** consist of group presentations.

#### REMINDER

- Remember that next week, you will have to present the result of your investigations at the Science Museum.
- The deadline for uploading your 120 seconds newscast is next week, 28 January, midnight.

### **Session 4 : Science in the Museum (Week 24, 05 February 2014).**

#### Essential readings:

- MacDonald, S. (1996) 'Authorising science: public understanding of science in museums'. In Irwin A & Wynne B (Eds) *Misunderstanding Science? The Public Reconstruction of Science and Technology*. Cambridge: Cambridge University Press, pp. 152-171
- Nahum, A. (2010) 'Exhibiting Science: Changing Conceptions of Science Museum Display'. In *Science for the Nation. Perspectives on the History of the Science Museum*, edited by Peter J. T. Morris, Basingstoke: Palgrave Macmillan, pp. 176-193

Museum workers do not only communicate knowledge about science to visitors. Through their displays they create a version of scientific knowledge for their audiences.

In the session, we will start with a review of the literature reflecting on the communication of science through the presentation of material objects. The rest of the session will be devoted to small groups presentations based on your visit at the Science Museum.

Prepare for this session by completing the readings and **visiting** the Science Museum, in South Kensington, where you will conduct the following investigations (A. & B.). The first one (A) is intended to be a **group work**, and you will present your result to the class. The second one (B) will serve as a basis for an **individual** work which will form part of your assessment for the module.

#### **A. Group Work.** Comparison of two displays:

First pay a visit to the model of the double helix of DNA in the 'Making the Modern World' gallery (ground floor of the Museum). Then climb up to the second floor and go see the display about 100 years of X-Ray crystallography situated at the end of the Mathematics Gallery.

Try to reflect comparatively on these two displays using the following questions as a guide:

- What knowledge is being communicated (which scientific field) ?
- How is this done?
- What is the balance between objects and support material (Labels, photographs, video, etc.)?
- What are the contents of the support material?
- What kind of objects is put on display?

- What kind of visitor engagement does the display authorise?
- What is the story told by the display?
- What image of science emerge from the display?
- What would you have done differently? Why?

Work in groups of no more than three. Each group should use these walks in the museum to prepare a 15 minutes presentation to be delivered to the class, and addressing the questions suggested above. Do not hesitate to take snapshots during your visits, to illustrate your talk.

You may find the following book chapter useful, as it deals with some of the objects you will see in the display about the history of X-ray crystallography:

- de Chadarevian, S. 2004. 'Models and the making of molecular biology'. In Hopwood N., and de Chadarevian, S. (Eds). 2004. *Models: The Third Dimension of Science*. Stanford: Stanford University Press, p. 339-368

## **B. Individual work.**

Choose a display in the Museum –object, showcase, entire gallery– and use the questions above to critically reflect on it. You can even choose a display which you feel is completely alien to you (to me it would be the reconstruction of Babbage's Difference Engine in the computer gallery), and try to reflect on the way you relate to it, what you get from the display, what you understand from it. Again, you can use the questions above as a guide.

Write **individually** a piece of no more than 1000 words based on investigation B, to be uploaded on Moodle by **25 February 2014**, before midnight. This piece will be part of your assessment for the module. It will be returned to you on week 29.

## **Session 5 : Science on Television (Week 25, 12 February 2014).**

Essential readings:

- Dijck, J. V. (2006). 'Picturizing science : The science documentary as multimedia spectacle'. *International Journal of Cultural Studies*, Vol.9, 5-24.
- Reid, R. W. (1969). 'Television Producer and Scientist'. *Nature*, Vol. 223, 455-458.

Television science producers ascribe meanings to science and technology that enable audiences to become familiar with unfamiliar knowledge.

Prepare for this session by completing the readings. In this class we will first review the literature on the presentation of science on television, concentrating on science documentaries. We will then watch a documentary and discuss it.

*Man in Space* was shown in 1966 in the BBC *Horizon* series. It depicts the early stages of the US Space programme and features an extensive interview with astronaut Frank Borman. This documentary is interesting because it belongs to an early stage of science television

Whilst watching *Man In Space*, try to keep in mind the following questions, since they will serve to focus the discussion afterwards:

- Opening-shots. What images are we being shown by way of 'setting the scene' for what is to come? What commentary is being heard? What impression do **you** get from the introductory montage?
- How is the subject matter of the documentary being made relevant to the audience?
- Where and what is the scientific information? What data is being communicated, when and how? What have you learned about life in a spacecraft?
- What metaphors are being offered as guides to what is going on? Give examples.
- What can you tell about the role of the presenter? Is he someone viewers can identify

with? Or rather is he maintaining a distance between audiences and the subject matter?

- What can you tell about the conditions of production? What elements of the programme obviously need to have been set up beforehand, and which do you think happened spontaneously? Is this distinction important?
- Overall, how is the relationship between humans and science and technology being presented here? Think about the metaphors. How is the material being made relevant to the experiences of the audience (very few of whom will ever have gone up aboard a spacecraft)
- Finally, how 'big' is this story (in terms of news values)? What elements in our culture is the narrative being attached to?

If you wish to explore the topic further you may want to read the following book chapter, which proposes an original interpretation of the way audiences actively receive the knowledge produced by television.

- Livingstone, S. (1999) 'Mediated knowledge. Recognition of the familiar, discovery of the new'. In Gripsrud, J. (Ed) *Television and Common Knowledge*, London and New York: Routledge, pp. 91-107.

At the end of the seminar we will discuss the activities for the next session, in which we will consider the use of science in fiction, novels and feature films. The novel we will work with is *Solaris* by the Polish writer Stanislas Lem. We will work on the first two chapters of the 2011 translation by Bill Johnson. We will draw some comparison with the beginning of the 2002 film adaptation by Steven Soderbergh.

## **Session 6 : Science in Fiction (Week 27, 26 February 2014).**

Essential readings:

- Kirby, D. A. (2011). *Lab Coats in Hollywood: Science, Scientists, and Cinema*. Cambridge, MA and London: MIT Press, **chapter 5**: 'Cinematic Fact Checking: Negotiating Scientific Facts within Filmmaking Culture', pp. 96-117
- Sleigh, C. L. (2011). *Literature and Science*. Basingstoke: Palgrave Macmillan, **Introduction**, pp. 1-26

Scientific literacy is not the only category that enables us to make sense of science in the mass media. Fictional accounts of science suggest that it is also about conveying an image of science.

As is usual by now, the session will start with a review of the relevant literature on the topic of science in fiction, films and novels. We will then discuss the novel and watch the beginning of the film adaptation, and reflect on the role science is made to play and how it is represented in these works of fiction.

Prepare for this session by completing the readings and by reading at least the two first chapters of *Solaris*. You can obtain background information on the film and the novel from the two webpages below:

<http://bibliography.english.lem.pl/around-lem/adaptations/soderbergh>

[http://www.wired.com/wired/archive/10.12/solaris\\_pr.html](http://www.wired.com/wired/archive/10.12/solaris_pr.html)

Whilst reading the novel keep the following points in mind, as they will serve to focus our class discussion. You can also make notes in relation to these points and bring them with you.

- How is science suggested in the text? And in the film? What elements convey to the reader the scientific nature of the story?
- What kind of science is it? How does it relate to the world we live in?
- How are scientists portrayed? What do you think of the way science and scientists are represented?
- Thinking of the documentary we watched last time, *Man in Space*, how would you relate the novel written in 1961, to the historical scientific context? What about the 2002 film?

- What is the representation of science you get from reading this chapter?
- What role is scientific knowledge made to play in the story? What does science add to the entertainment value of the story?
- How imagination relates to science in the story?

Please bring with you in class a **150 words summary** of your thoughts on these questions in relation to your reading. Be prepared to read it aloud.

If you wish to pursue your reflection on the topic further, you may find the paper by Ron Curtis (1994) useful. It examines how the genre detective stories, which serves to structure science stories in popular science magazines, conveys an image of science as providing unquestioned answers.

- Curtis R (1994) 'Narrative form and normative force: Baconian story-telling in science', *Social Studies of Science*, 24: 419-461

At the end of the session, we will debrief your newscasts.

**Remember:** The deadline for submitting your piece about your visit at the Science Museum is next week, 25 February, midnight.

## **Session 7 : Wildlife film-making (Week 28, 05 March 2014).**

Essential reading:

- Mitman, G. (1993). 'Cinematic Nature: Hollywood Technology, Popular Culture, and the American Museum of Natural History'. *Isis*, Vol. 84: 637-661.
- Gouyon, J.-B. (2011). 'The BBC Natural History Unit. Instituting natural history film-making in Britain'. *History of Science*, Vol.49 (4): 425-451.

As the case of wildlife film-making indicates, sometimes, science communicators make claims that they participate in the scientific enterprise.

In this session we will consider the special case of wildlife films, which stand at the confluence between science and entertainment. The session will involve watching a large extract of the making-of documentary for the 2002 film *Winged Migration*. This will be followed by a class discussion on the theme, highlighted in the documentary, that the necessary construction of the film performance is a way of producing knowledge.

Prepare for the session by completing the reading. You will also collect, through newspapers' websites, stories related to the accusations of fakery made against BBC nature documentaries (most recently in relation to the 2011 BBC series *The Frozen Planet*). Reading these stories you will pay attention to the way the BBC (mostly through the voice of David Attenborough) defended itself.

You will bring to the class a **150 words summary** of your reflections on the topic, and be prepared to share it with the class.

Whilst watching the making-of documentary for *Winged Migration*, we will focus on the way science and scientists are enrolled in order to support the claim that the feature film is a faithful rendition of nature, that can be trusted to impart valid and reliable knowledge of migrating birds.

## **Session 8 : Science on the Web (Week 29, 12 March 2014).**

Essential reading:

- Trench, B. (2008) 'Internet. Turning science communication inside-out?'. In Bucchi, M. and Trench, B. (Eds) (2008). *Handbook of public communication of science and technology*. Abingdon: Routledge, pp. 185-198.
- Gieryn, T. (1995) 'Boundaries of Science'. In Jasanoff S. et al (Eds). *Handbook of Science and Technology Studies*. London: Sage, pp.393-443

Science in the mass media has the capacity of blurring the boundary between scientists and non-scientists.

In this session we will consider the presentation of science on the Internet. It has been claimed that one of the characteristics of the Internet is its capacity to blur the distinction between producers and consumers of knowledge. This will be the departure point of a reflection on the notion of the boundaries of science.

You will prepare for this session by completing the readings.

Working **by pair** you will also track a science story on the Web as it moves from a press release to online newspapers, through to blogs and tweets. A good starting point is the website <http://www.alphagalileo.org/AllContent.aspx?ContentType=NewsRelease>. This is a European web-based news agency specialising in scientific news. You should try and find at least three iterations of the same story in different contexts.

As you track down your story you will need to pay attention to the nature and kind of the changes that are, or are not, being introduced to scientific accounts as they are presented to different audiences, and in different settings. Why are these changes being introduced? Are they changing the nature of the information offered, or are they just simplifying it?

This work should be written-up, and each pair should come prepared to talk to the class for ten minutes on their chosen topic .

## **Session 9 : Scientists and the Mass Media (Week 30, 19 March 2014).**

Essential readings:

- Gieryn, T. (1999) *Cultural Boundaries of Science: Credibility on the Line*. Chicago: The University of Chicago Press, **chapter 4**, 'The (Cold) fusion of Science, Mass Media, and Politics', pp. 183-232.
- Nielsen, K. H. (2012) 'Expedition "Live"'. Science, Media, and Politics on the Galathea 3 Expedition 2006-2007'. In Nielsen, K. H., Harbsmeier, M. and Ries C. J. (Eds), *Scientists and Scholars in the Field*, Aarhus: Aarhus University Press, pp. 363-393

In this session we will move away from science and towards scientists in order to explore their relationship with the mass media. We will consider how scientists appear in mass media science stories, and how they get involved in the making of these stories. This will lead us to reassess the notion that science in the mass media is something happening to science, and wonder instead whether science in the mass media is not simply another facet of science.

Working **in pairs** you will prepare for this session by going back through your notes and the material you have accumulated along the past weeks in order to perform two tasks.

1- you will try to build a "photo-fit" of the scientist as they appear in the mass media (is it a male, a female? What is their ethnic background? Are they old, or young? Are they mad, bad and dangerous or benevolent? What is their field of expertise?).

2- you will look for evidence of scientists' involvement in the making of science mass media stories and reflect on scientists' use of mass media.

This work should be written-up, and each pair should come prepared to share their findings with the class. These will serve as a basis for our discussion.

At the end of the session, your piece on the Science Museum will be returned.

## **Session 10 : And the public? (Week 31, 26 March 2014).**

Essential readings:

- McKechnie, R. (1996). Insiders and outsiders: identifying experts on home ground. In Irwin, A. & Wynne, B. (Eds.), 1996, *Misunderstanding Science? The public reconstruction of science and technology*. Cambridge: Cambridge University Press, pp. 191-212.
- Epstein S (1997) 'Activism, drug regulation and the politics of therapeutic evaluation in the AIDS era', *Social Studies of Science*, 27: 691-726

Prepare for this session by completing the readings and making sure that you bring your notes from the previous weeks.

This final session will turn to the absent of studies of science in the mass media, audiences. We will consider issues of reception, effect, mediation. After reviewing the relevant literature, we will have a class debate on the idea that the production of knowledge stops on the laboratory doorstep.

At the beginning of the seminar, you will be assigned to the **For** or **Against** side by ballot. The two teams will have some time in the first part of the seminar to review their notes and to decide on tactics, and the debate proper will take place in the second part of the seminar. In the first part I will be available to give advice, in the second part, I will moderate the discussion.

At the end of the session your essays will be returned. We will also make time to discuss how you should prepare for the closed examination in term 3.

## Schedule

UCL Wk	Date	Topic	Activity
21	15/01	Introduction – Science in public	Newspapers examination. <u>Readings:</u> Gregory J & Miller S (1998) <b>chapter 4</b> ; Silverstone, R.(2005).
22	22/01	Science in the News	Writing a newscast. <u>Reading:</u> Gregory J & Miller S (1998) <b>chapter 5</b> .
23	29/01	Science in the Mass Media and STS	Class debate. <u>Readings:</u> Hilgartner, S. (1990); Bucchi, M. (2008).
24	05/02	Science in the Museum	Small groups presentations. <u>Readings:</u> MacDonald, S. (1996); Nahum, A. (2010).
25	12/02	Science on Television	Watching <i>Man in Space</i> (1966) and class discussion. <u>Readings:</u> Dijck, J. V. (2006); Reid, R. W. (1969).
		<b>Reading Week</b>	<b>no seminar</b>
27	26/02	Science in Fiction	Reading and Watching <i>Solaris</i> (1961/2002). <u>Readings:</u> Kirby, D. A. (2011); Sleigh, C. L. (2011).
28	05/03	Wildlife film-making	Watching and discussing the making-of of <i>Winged Migration</i> (2002). <u>Readings:</u> Mitman, G. (1993); Gouyon, J.-B. (2011).
29	12/03	Science on the Web	Small groups presentations. <u>Readings:</u> Trench, B. (2008); Gieryn, T. (1995).
30	19/03	Scientists and the Mass Media	Class discussion. <u>Readings:</u> Nielsen, K. H. (2012); Gieryn, T. (1999)
31	26/03	And the Public?	Class Debate. <u>Readings:</u> McKechnie, R. (1996); Epstein S (1997).

## Reading list

### Reference Books:

- Bucchi, M. and Trench, B. (Eds) (2008). *Handbook of public communication of science and technology*. Abingdon: Routledge.
- Gregory, J. & Miller, S. (1998). *Science in Public. Communication, Culture, and Credibility*. London & New York: Plenum Trade.

### Essential Readings:

- Bucchi, M. (2008). 'Of deficits, deviations and dialogues. Theories of public communication of science'. In Bucchi, M. and Trench, B. (Eds) (2008). *Handbook of public communication of science and technology*. Abingdon: Routledge, pp. 57-76.
- Curtis R (1994) 'Narrative form and normative force: Baconian story-telling in science', *Social Studies of Science*, 24: 419-461.
- de Chadarevian, S. 2004. 'Models and the making of molecular biology'. In Hopwood N., and de Chadarevian, S. (Eds). 2004. *Models: The Third Dimension of Science*. Stanford: Stanford University Press, p. 339-368
- Dijck, J. V. (2006). 'Picturizing science : The science documentary as multimedia spectacle'. *International Journal of Cultural Studies*, Vol.9, 5-24.
- Epstein S (1997) 'Activism, drug regulation and the politics of therapeutic evaluation in the AIDS era', *Social Studies of Science*, 27: 691-726
- Gieryn, T. (1995) 'Boundaries of Science'. In Jasanoff S. et al (Eds). *Handbook of Science and Technology Studies*. London: Sage, pp.393-443
- Gieryn, T. (1999) *Cultural Boundaries of Science: Credibility on the Line*. Chicago: The University of Chicago Press, **chapter 4**, 'The (Cold) fusion of Science, Mass Media, and Politics', pp. 183-232.
- Gouyon, J.-B. (2011). 'The BBC Natural History Unit. Instituting natural history film-making in Britain'. *History of Science*, Vol.49 (4): 425-451.
- Gregory J & Miller S (1998) *Science in Public: Communication Culture and Credibility*, London: Plenum Press, **chapter 4**: 'Popularization, Public Understanding, and the Public Sphere'.
- Gregory J & Miller S (1998) *Science in Public: Communication Culture and Credibility*, London: Plenum Press, **chapter 5**: 'Media Issues in the Public Understanding of Science'
- Hilgartner, S. (1990). 'The Dominant View of Popularisation: Conceptual Problems, Political Uses'. *Social Studies of Science*, Vol.20 (3): 519-539.
- Kirby, D. A. (2011). *Lab Coats in Hollywood: Science, Scientists, and Cinema*. Cambridge, MA and London: MIT Press, **chapter 5**: 'Cinematic Fact Checking: Negotiating Scientific Facts within Filmmaking Culture', pp. 96-117.
- Livingstone, S. (1999) 'Mediated knowledge. Recognition of the familiar, discovery of the new'. In Gripsrud, J. (Ed) *Television and Common Knowledge*, London and New York: Routledge, pp. 91-107.
- MacDonald, S. (1996) 'Authorising science: public understanding of science in museums'. In Irwin A & Wynne B (Eds) *Misunderstanding Science? The Public Reconstruction of Science and Technology*. Cambridge: Cambridge University Press, pp. 152-171
- McKechnie, R. (1996). Insiders and outsiders: identifying experts on home ground. In Irwin, A. & Wynne, B. (Eds.), 1996, *Misunderstanding Science? The public reconstruction of science and technology*. Cambridge: Cambridge University Press, pp. 191-212.

- Mitman, G. (1993). 'Cinematic Nature: Hollywood Technology, Popular Culture, and the American Museum of Natural History'. *Isis*, Vol. 84: 637-661.
- Nahum, A. (2010) 'Exhibiting Science: Changing Conceptions of Science Museum Display'. In *Science for the Nation. Perspectives on the History of the Science Museum*, edited by Peter J. T. Morris, Basingstoke: Palgrave Macmillan, pp. 176-193
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## Assessment

### summary

	Description	Deadline	Word limit
CW	Part 1: 120 seconds science newscast	28/01	200
	Part 2: Museum display analysis	25/02	1000
CW	Essay	11/03	2000
CE	Closed Examination		

### coursework

#### Newscast:

Building on the work done in class during session 2, you will write a science story and record it so that it lasts no more than 120 seconds. This newscast (the sound file) should be uploaded on Moodle by 28 January, midnight.

#### Museum Display Analysis:

Using your visit to the Science Museum, you will write a piece of no more than 1000 words in which you will analyze a display of your choice (that could be an object, a showcase with several objects in it, or an entire gallery), again critically reflecting on the way scientific knowledge is displayed. You can use the following questions to structure your essay:

- What knowledge is being communicated (which scientific field) ?
- How is this done?
- What is the balance between objects and support material (Labels, photographs, video,

etc.)?

- What are the contents of the support material?
- What kind of objects is put on display?
- What kind of visitor engagement does the display authorise?
- What is the story told by the display?
- What image of science emerge from the display?
- What would you have done differently? Why?

**(Please note that this is not the comparison of displays, which will be a group work and lead to class presentations on week 23)**

### Essay:

In order to complete your coursework assessment, you will choose one topic in the list below and write a 2000 words essay to be uploaded on Moodle by 11 March.

1. Is it fair to say that science in the mass media is just a simplified version of real science? What are the implications of this assertion? You will use examples discussed in class to illustrate your answer.
2. Science journalists make science relevant for non scientists. Using your notes from session 1 and 2, you will analyze how this is being done, and reflect on the images of science which are being created.
3. Is the notion of scientific literacy helpful for making sense of Science in the mass media ? Answer using your notes taken during session 5, 6, and 7.
4. Has science in the mass media ever had a significant impact on the development or outcome of a scientific debate? Answer using your notes from session 9.

## **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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