



## Module Syllabus

# HPSC2002

## Science and the Mass Media

### module description

HPSC2002 invites you to develop a critical understanding of the consumption and making of science news: its sites, participants, challenges, styles and topics. It draws on the body of scholarly work in this area, as well as reflections from science media practitioners themselves and your own analysis of primary sources. We will cover a range of topics including uncertainty, trust, news values, embargos, narrative and media effects; discussing science journalists, bloggers, readers, scientists, PRs and a host of hybrid characters in-between.

Moodle: <http://moodle.ucl.ac.uk/course/view.php?id=854>

### module tutor

tutor	Dr Alice Bell
email	<a href="mailto:alice.bell@imperial.ac.uk">alice.bell@imperial.ac.uk</a>
phone	0207 679 2969
URL	<a href="http://alicerosebell.wordpress.com/">http://alicerosebell.wordpress.com/</a>
office location	22 Gordon Square, room B12
office hours	Thursdays, 2-4pm or by appointment (email in advance). Please note the tutor is primarily based at Imperial's South Kensington Campus.

### lecture schedule

Students are expected to attend all lectures:

- Thursdays 11:00-13:00 Locations can be found by clicking on the link at <http://www.ucl.ac.uk/sts/study/hpsc>

Lectures begin during the week of 9 January 2011.

## timetable and room information

UCL Timetable: [www.ucl.ac.uk/timetable](http://www.ucl.ac.uk/timetable)

## assessment

Students registered for this module are asked to produce two pieces of coursework and sit an exam.

The first piece of coursework asks you to trace and connect the life of a science story online as it unfolds, and then use this case study to say something analytical about the nature of science coverage in the mass media (further guidelines are given at the end of this document).

The second piece of coursework is a more traditional essay: from a choice of set questions (again, see end of this document).

Exam questions will take a similar form to those set for the second assignment, although may also invite students to undertake a close reading of a short text. The syllabus has changed slightly this year, but past exam papers are still useful revision material as the basic topics and assessment style will remain the same. Will we discuss the exam in class and at a revision session at the start of term 3. Please refer to lecture notes and course objectives as basis for revision.

<b>assessment</b>	<b>weight</b>	<b>due</b>	<b>delivery</b>
Analysis of a tracked story	30%	23 <sup>rd</sup> February	Upload document to Moodle.
Essay (2000 words)	30%	22 <sup>nd</sup> March	Upload document to Moodle.
Exam	40%	Term 3	3 hour unseen exam.

# schedule

	<b>lecture theme</b>	<b>date</b>	<b>week</b>	<b>readings</b>
1	Introduction: mapping science in the news.	12 January	1	We will consider this week's science news in class.
2	Media effects and public "understanding"	19 January	2	Gauntlett (1998)
3	Models of science, the media and the public.	26 January	3	Hiltgartner (1990)
4	Making science news	2 February	4	WCSJ audio (2009)
5	The actors of science news	9 February	5	Fahy & Nisbet (2011)
		16 February		
6	Storytelling and popular science.	23 February	6	Turney (2001)
7	The character of the scientist	1 March	7	Chimba & Kitzinger (2009)
8	Risk and uncertainty	8 March	8	Hume (2008)
9	Building trust and doubt	15 March	9	Pearce (2011)
10	Is there a crisis in science journalism?	22 March	10	Williams (2009)

# reading list

## List of required readings:

- Chimba, Mweny & Kitzinger, Jenny (2009) 'Bimbo or boffin? Women in science: An analysis of media representations and how female scientists negotiate cultural contradictions', *Public Understanding of Science*, vol. 19(5): 609-624.
- Guantlett, David (1998) 'Ten things wrong with the media 'effects' model, read online at <http://www.theory.org.uk/david/effects.htm> initially published in Dickinson, Roger , Harindranath, Ramaswani & Linné, Olga (eds) *Approaches to Audiences – A Reader* (London: Arnold).
- Gregory, Jane & Miller, Steve (1998) *Science in Public: Communication, Culture and Credibility* (New York & London: Plenum) chapter four.
- Fahy, Declan & Nisbet, Matthew C (2011) 'The science journalist online: Shifting roles and emerging practices', *Journalism*, 12(7): 778–79.
- Hilgartner, Stephen (1990) 'The Dominant View of Popularization: Conceptual Problems, Political Uses', *Social Studies of Science*, vol. 20(3): 519-539.
- Hulme, Mike (2009) *Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity* (Cambridge: Cambridge University Press) chapter three.
- Pearce, Fred (2011) 'Secrecy in Science: An Argument for Open Access', *Index on Censorship, Dark Matter: What's Science got to hide?* vol. 40(4): 113-119 read online at <http://www.indexoncensorship.org/2011/1/1/climate-change-secrecy-freedom-information/>
- Turney, Jon (2001) 'More than story-telling: Reflecting on popular science', in Stocklmayer, Sue, et al (eds) *Science Communication in Theory and Practice* (Kluwer: London) 47-62.
- Williams, Andy, & Clifford, Sadie (2009) *Mapping the Field: Specialist science news journalism in the UK national media*, funded by Department for Business, Innovation and Skills, download from <http://cf.ac.uk/jomec/research/researchgroups/riskscienceandhealth/fundedprojects/mappingscience.html>
- You should also listen to the debate on embargoes held at the World Congress of Science Journalists, 2009 <http://www.wcsjnews.org/session/26-embargoes-science-reporting-friend-or-foe>

Please read these **BEFORE** class: they are designed as preparation and material for in-class discussion. Take notes and try to summarise what you think the piece argues.

I have suggested some optional supplementary readings for each week in the course outline below. In class, you will be given a fully referenced handout which should be helpful in researching coursework as well as revision. You are also expected to consume current science, technology, environment and medical news so you have a sense for what stories are currently being covered, by whom and how.

You should anticipate high demand for course materials around exams and coursework deadlines. If you aren't already a member of the Wellcome library, now is time to join.

# syllabus notes

Basic procedures and regulations are provided in the *STS Student Handbook*  
<https://www.ucl.ac.uk/sts/study/bsc>

## aims and objectives

The central aim of this course is to help students become critical participants in science news media, whether the nature of this participation is as a scientific expert, a media producer or general reader (or all of these at once).

By the end of the course you should be confident in your ability to:

- Critically evaluate the history of surveying the public on and about science.
- Recognise and critique the various models for the public's relationship with science.
- Understand the processes which science news is made (including questions of news values, scientific publishing and the embargo system).
- Identify and critically appraise the various stakeholders who act to shape the science news (including the long history of hybrid roles).
- Discuss apparent challenges and changes to professional science journalism (including new business models, 'churnalism', libel reform and the rise of blogging).
- Recognize narrative structures and language style commonly used in science writing (including the 'inverted pyramid' and basic terms of rhetorical analysis).
- Deconstruct a range of images of scientists in both fiction and non-fiction, and critically evaluate ways of studying this.
- Explore issues in risk communication and public discussion of uncertainty in science (especially in terms of BSE, MMR and climate communication).
- Understand the recent history of calls for transparency and openness in science (in the context of 'upstream' public engagement, Open Access and Freedom of Information).

## course plan

### **week one: mapping science in the news (also course introduction)**

After an introduction to the course, we will spend the bulk of the session getting our fingers dirty with news ink and taking this week's newspapers apart to explore where and how science is covered by the press.

*There is no compulsory reading this week. However, please start to try to extend your consumption of science news. If you normally read the Guardian, read the Telegraph, Mail and Sun too. Also look at science-specific publications, such as New Scientist or the news pages of Nature, and explore science blogs as well as podcasts, twitter, tumblr, etc.*

### **week two: media effects and public "understanding".**

This session shifts us from the media content to its impact on society. After critiquing a simplistic attitude to media effects we will discuss some of the ways in which audiences might

be understood to construct meaning from media content. We will also explore some of the history of surveying the public understanding of science/ public attitudes towards science and the ways in which scientists and publics themselves might imagine their identity.

Compulsory readings:

- Guantlett, David (1998) 'Ten things wrong with the media 'effects' model, read online at <http://www.theory.org.uk/david/effects.htm> initially published in Dickinson, Roger , Harindranath, Ramaswani & Linné, Olga (eds) *Approaches to Audiences – A Reader* (London: Arnold).

Suggested readings:

- Bauer, Martin, Allum, Nick & Miller, Steve (2007) 'What can we learn from 25 years of PUS survey research? Liberating and expanding the agenda', *Public Understanding of Science*, vol. 16(1): 79-95.
- Hargreaves, Ian, Lewis, Justin & Speers, Tammy (2003) *Towards a Better Map: Science, the Public and the Media*. Report to the ESRC, downloadable at [http://www.esrc.ac.uk/\\_images/towards\\_a\\_better\\_map\\_tcm8-13558.pdf](http://www.esrc.ac.uk/_images/towards_a_better_map_tcm8-13558.pdf)
- Michael, Mike (2009) 'Publics performing publics: of PiGs, PiPs and politics', *Public Understanding of Science*, vol. 18(5): 617-631.

### **week three: models of science, the media and the public**

Following on from last week's discussion of the empirically discernable effect of science media on lay public audiences, this session explores some models of science media from a more political and ethical perspective. We will explore the various critiques of the so-called "deficit model" or "dominant concern" as well as the alternative vision of a "web model" and emergence of calls for "public engagement".

Compulsory reading:

- Hilgartner, Stephen (1990) 'The Dominant View of Popularization: Conceptual Problems, Political Uses', *Social Studies of Science*, vol. 20(3): 519-539.

Suggested readings:

- Bucchi, Massimiano (2008) 'Of deficits, deviations and dialogues: theories of public communication of science', in Massimiano Bucchi & Trench, Brian (eds) *Handbook of Public Communication of Science and Technology* (London: Routledge) 57-76.
- Gregory, Jane & Miller, Steve (1998) *Science in Public: Communication, Culture and Credibility* (New York & London: Plenum) chapters one and four.
- Wilsdon, James & Willis, Rebecca (2004) *See-through Science: Why public engagement needs to move upstream* (London: Demos), downloadable at <http://www.demos.co.uk/publications/paddlingupstream>.

### **week four: making science news**

A return to media content and the construction of science news, we now consider what makes a science story "newsworthy". We will draw on some of the news stories found in week one as well as scholarly content analysis of science news. We will also briefly discuss the embargo

system and common rhythms of science news, as well as the ways in which new media may disrupt traditional processes of news making.

Compulsory reading:

- Debate on embargoes at the World Congress of Science Journalists 2009  
<http://www.wcsjnews.org/session/26-embargoes-science-reporting-friend-or-foe>
- Please also have a look through the Embargo Watch blog:  
<http://embargowatch.wordpress.com/>

Suggested readings:

- Allan, Stuart (2008) 'Making science newsworthy: exploring the conventions of science journalism' in Holliman, Richard et al (eds) *Investigating Science Communication in the Information Age* (Oxford: Oxford University Press), 149-165.
- Gregory, Jane & Miller, Steve (1998) *Science in Public: Communication, Culture and Credibility* (New York & London: Plenum) chapter five.
- Mellor, Felicity, Webster, Stephen & Bell, Alice R (2011) Appendix A of BBC Trust's review of impartiality and accuracy in science coverage, download at  
[http://www.bbc.co.uk/bbctrust/assets/files/pdf/our\\_work/science\\_impartiality/appendix\\_a.pdf](http://www.bbc.co.uk/bbctrust/assets/files/pdf/our_work/science_impartiality/appendix_a.pdf)

#### **week five: the actors of science media**

Still on the construction of science news, we ask who articulates and shapes science in the news: journalists, public relations professionals, scientists, NGOs, 'the public', politicians? We also explore whether new media has blurred such identities and allowed new voices, or if science news has always drawn on hybrid roles and remains reasonably elitist, and consider science journalism's relationship to PR in light of new media.

Compulsory reading:

- Fahy, Declan & Nisbet, Matthew C (2011) 'The science journalist online: Shifting roles and emerging practices', *Journalism*, 12(7): 778–79.

Suggested readings:

- Nelkin, Dorothy (1995) *Selling Science: how the press covers science and technology*, 2<sup>nd</sup> edition (New York: WH Freeman) chapters 6 and 8.
- Yearley, Steven (2008) 'Environmental action groups and other NGOs as communicators of science' in Bucchi, Massimiano & Trench, Brian (eds) *Handbook of Public Communication of Science and Technology* (London: Routledge) 159-171. Chapters 9 and 10 in this book may also be useful.
- Yong, Ed (2010) 'Adapting to the new ecosystem of science journalism', *Not Exactly Rocket Science*, January 11,  
[http://scienceblogs.com/notrocketscience/2010/01/adapting\\_to\\_the\\_new\\_ecosystem\\_of\\_science\\_journalism.php](http://scienceblogs.com/notrocketscience/2010/01/adapting_to_the_new_ecosystem_of_science_journalism.php)

#### **week six: storytelling and popular science**

We will explore some of the narrative structures and styles of language common not only to

science news but more 'longform' popular science products such as books or documentary. Some of the basic tenants of rhetorical analysis will be introduced, with a chance to explore issues of realism as well as similarities to other genres (e.g. literary fiction, travel).

Compulsory reading:

- Turney, Jon (2001) 'More than story-telling: Reflecting on popular science', in Stocklmayer, Sue, et al (eds) *Science Communication in Theory and Practice* (Kluwer: London) 47-62.

Suggested readings:

- Fahnestock, Jeanne (1986) 'Accommodating science: the rhetorical life of scientific facts', *Written Communication* 3, 275-96.
- Turney, Jon (1999) The Word and the World, in Scanlon et al (eds) *Communicating Science: Contexts and Channels* (Routledge: London) 47-62.
- van Dijck, José (2006) 'Picturizing Science: The science documentary as multimedia spectacle', *International Journal of Cultural Studies*, vol. 9(1): 5-24.

### **week seven: the character of the scientist**

It's often said that the scientific community has an image problem; that scientists are, at best, geeky social outsiders or worse, outright sinister. There are also on-going concerns about the (under) representation of women of science in the media. This session will critique simplistic 'draw a scientist' studies to consider the ways in which particular images of scientists come into being to explore representations of scientists in the mass media.

Compulsory reading:

- Chimba, Mweny & Kitzinger, Jenny (2009) 'Bimbo or boffin? Women in science: An analysis of media representations and how female scientists negotiate cultural contradictions', *Public Understanding of Science*, vol. 19(5): 609-624.

Suggested readings:

- Gregory, Jane (2008) 'Scientists Communicating' in Holliman, Richard et al (eds) *Practising Science Communication in the Information Age* (Oxford: Oxford University Press), chapter 1.1.
- Haynes, Rosalind (1994) *From Faust to Strangelove: representations of the scientist in western literature* (Baltimore: Johns Hopkins University Press), introduction.
- Leane, Elizabeth (2007) *Reading Popular Physics: Disciplinary Skirmishes and Textual Strategies* (Hampshire: Ashgate), 137-162.

### **week eight: risk and uncertainty**

Science is, by its nature, uncertain and yet media and policy seem ask certainty of it. Further, the media are often criticised for misrepresenting the uncertainty in science, pitting marginal views up against the scientific consensus as if they were equal (i.e. so-called "false balance"). Key case studies of BSE, MMR, GMOs and climate change will be used to help us explore some of the problems involved in talking publicly about uncertainty and discussion in science.

Compulsory reading:

- Hulme, Mike (2009) *Why We Disagree About Climate Change: Understanding Controversy, Inaction and Opportunity* (Cambridge: Cambridge University Press) chapter three.

Suggested readings:

- Allan, Stuart (2002) 'Media, risk and the environment' in *Media, Risk and Science* (Open University Press), chapter five.
- Gregory, Jane & Miller, Steve (1998) *Science in Public: Communication, Culture and Credibility* (New York & London: Plenum) chapter seven.
- Irwin, Alan (2009) 'Moving forwards or in circles? Science communication and scientific governance in an age of innovation', Holliman, Richard et al (eds) *Investigating science communication in the information age* (Oxford: Oxford University Press), 3-17.

### **week nine: building trust and doubt**

Science, since the founding of the Royal Society, has declared we should "take nobody's word for it" and yet the increasingly specialised nature of expertise means we all have to take some things on trust. No one has the time to check all the knowledge we rely upon. We will explore this apparent paradox and ask if doubt is deliberately manufactured on some policy issues, to amplify a sense of uncertainty and undermine science? Again, we use case studies of BSE, MMR, GMOs, climate change, as considering the history of sceptic activism.

Compulsory reading:

- Pearce, Fred (2011) 'Secrecy in Science: An Argument for Open Access', *Index on Censorship, Dark Matter: What's Science got to hide?* vol. 40(4): 113-119 read online at <http://www.indexoncensorship.org/2011/11/climate-change-secrecy-freedom-information/>

Suggested readings:

- Hess, David J (1993) *Science in the New Age: the paranormal, its defenders and debunkers, and American culture* (Madison/ London: University of Wisconsin Press).
- House of Lords (2000) *Third Report: Science and Society* (London: The Stationery Office), viewable online at <http://www.publications.parliament.uk/pa/ld199900/ldselect/ldsctech/38/3801.htm>.
- Oreskes, Naomi & Conway, Erik M (2010) *Merchants of Doubt: How a handful of scientists obscure the truth on issues from tobacco smoke to global warming* (New York: Bloomsbury), chapter one.

### **week ten: Is there a crisis in science journalism?**

Is science journalism in crisis? Has the bottom fallen out of the media business? Are hobbyist bloggers undermining professional journalism? Or is science journalism simply a stage in flux, as it ever was? We will also look back on the course as a whole to ask what the big new challenges for science in the media are for the future.

Compulsory reading:

- Williams, Andy, & Clifford, Sadie (2009) *Mapping the Field: Specialist science news journalism in the UK national media*, funded by Department for Business, Innovation and Skills, download from <http://cf.ac.uk/jomec/research/researchgroups/riskscienceandhealth/fundedprojects/mappingscience.html>

Suggested readings:

- Fox, Fiona (2010) 'Blogs are not real journalism' *BBC College of Journalism blog*, April 12 <http://www.bbc.co.uk/journalism/blog/2010/04/blogs.shtml>
- Rennie, John (2011) 'Time for change in science journalism?' *Guardian Notes and Theories blog*, January 26, <http://www.guardian.co.uk/science/2011/jan/26/science-online-2011-journalism-blogs>
- Trench, Brian (2009) 'Science Reporting in the electronic embrace of the internet', Holliman, Richard et al (eds) *Investigating science communication in the information age* (Oxford: Oxford University Press), 149-165.

# ASSESSMENT

## coursework one: tracked story

Due: 23<sup>rd</sup> February 2012.

I want you to track a science news story as it has unfolded online, perhaps starting at publication date but possibly before, and use this to say something substantive about science in the mass media.

### Stage one: Track the story

Find as many of the press releases and reports of this as possible, including blogposts from sources outside of mainstream media (researchblogging.com may be useful here) as well as blog comments and more ephemeral discussion such as tweets. You should then collect these and present them on a timeline using software such as dipity <http://www.dipity.com/>. As an example, have a look at Ed Yong's coverage of Fukushima <http://blogs.discovermagazine.com/notrocketscience/2011/04/06/a-timeline-of-the-fukushima-disaster/>.

You may submit your work simply as a list of links in a Word document, similar to the Guardian Storytracker - <http://www.guardian.co.uk/science/series/story-trackers> - but it is worth trying to use dipity. Or, if your story has unfolded largely through social media you may find <http://storify.com/> a more useful tool.

### Stage two: Write a commentary.

Write 250-500 words introducing this story and another 250-500 pulling out an analytical point about what this case says about science in the media.

You may, for example, have noticed that a lot of the reporting of this story follows the pattern of the press release and so discuss the issue of 'churnalism'. Or you may think that the diverse debate after the publication of a scientific paper is an example of 'post-publication peer review' and/ or interaction between scientists and their critics. Or you may think it's an example of 'upstream' science communication. Or you might reflect on something much more specific to that case study. It is up to you.

Any references to analytical works (e.g. course readings) in this commentary should be fully referenced at the end of the document but you are not expected to do as much secondary research for this assignment as you are for the essay.

Finally: Please submit a Word document which includes a link to your dipity page pasted the text.

## coursework two

Due: 22<sup>nd</sup> March 2012.

Write a 2000 word essay in response to one of the questions below.

Your essay should start with an introduction outlining what you want to say, then run through your argument with examples providing a conclusion which sums up your view (tell them what you are going to tell them, tell them, tell them what you have told them).

Please also include a list of references. Only list sources you have discussed in the body of the essay itself. If a source had an impact on your thinking, this should be made explicit in the text. If it didn't, leave it out. Part of the task of composing an essay is filtering.

I expect to see evidence your use of the required readings as well as additional, complimentary materials suggested in class and those you have found yourself. Bring to bear whatever resources you think may be applicable to your arguments. You should draw on the scholarly literature but also, where appropriate, weave in analysis from practitioners and topical case studies of science in the news.

1. In early 2010, an expert group working on behalf of the Department of Business, Innovation and Skills published a report entitled "Science and the Media: Securing the Future". To what extent do you believe this report reflects what Steven Hiltgartner, writing in 1990, described as the then "dominant concern" of popular science? Has anything changed in approaches to science in the mass media over the last 20 years?
2. Have the roles of science journalist and PR officer blurred too much in recent years?
3. Last year, the UK's chief scientist Sir John Beddington was reported as saying:

*"We are grossly intolerant, and properly so, of racism. We are grossly intolerant, and properly so, of people who [are] anti-homosexuality... We are not – and I genuinely think we should think about how we do this – grossly intolerant of pseudo-science"*

Do you agree that such gross intolerance is the correct approach to take here, or are there alternatives?

4. Are bloggers the new science journalists?
5. To what extent can an NGO do effective science communication? Is the case different for environmental campaigning groups compared to medical charities?
6. John Rennie, a former editor of Scientific American, recently argued against what he calls the "big paper of the week" approach to science journalism. He went on to suggest an experiment where everyone agreed not to write about research until six months after publication. Do you agree that a focus on the publication of papers is a bad approach to reporting science? Should journalists wait six months, as Rennie suggests, and/ or write about science pre-publication?
7. What is the 'inverted pyramid' of news reporting, and how are science writers using online tools to re-invent science storytelling?
8. How might we go about studying the representation of women in science media? Your answer should discuss both possible research questions and methods for analysis, referring to the body of work already undertaken in this subject.

## **examination**

You will be asked to write three essays in three hours, from a list of questions. This will be discussed in more detail in class and a revision session will be set at the start of Term 3.

All lecture material and required readings are fair game for examination. Past papers are worth looking at, although the course has changed slightly this year, the basic structure and key topics remain the same.

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## Important policy information

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Below are listed some important points of policy. Further details of all these policies can be found in the STS Student Handbook [www.ucl.ac.uk/sts/handbook](http://www.ucl.ac.uk/sts/handbook)

### Criteria for assessment

The departmental marking guidelines for individual items of assessment can be found in the STS Student Handbook. [Insert additional module-specific criteria where available]

### Late submission of coursework

Penalties for late coursework submission are as follows:

- loss of 5 marks for work submitted less than 24 hours late
- loss of 15 marks for work submitted between 1 and 7 days late
- loss of all marks (i.e. work is graded 0) if submitted more than 7 days late

These rules are statutory and non-negotiable.

### Coursework word limits

Penalties for over-length coursework are as follows:

- Assessed work should not be more than 10% longer than the prescribed word count. Assessed work with a stated word count above this maximum cannot be accepted for submission, but will be immediately returned to the student with instructions to reduce the word length. The work may then be resubmitted, except insofar as penalties for late submission may apply.
- If submitted work is subsequently found to have an inaccurately stated word count, and to exceed the upper word limit by at least 10% and by less than 20%, the mark will be reduced by ten percentage marks, subject to a minimum mark of a minimum pass assuming that the work merited a pass.
- For work which exceeds the upper word limit by 20% or more, a mark of zero will be recorded.
- Footnotes and endnotes **do** count as part of the word limit
- Bibliography, tables, pictures and graphs **do not** count as part of the word limit.

### Extensions

If unforeseeable circumstances prevent the completion of a piece of coursework, students may request an extension to the set deadline. Please consult the STS Student Handbook for further guidance on acceptable grounds for requesting an extension. Extensions must be negotiated in advance with the course tutor. Students to whom STS is parent department may also request an extension from their Personal Tutor. No extension is considered official without written approval.

The request for extension form can be found at: [www.ucl.ac.uk/sts/study](http://www.ucl.ac.uk/sts/study)

### Plagiarism

The *UCL Student Handbook* defines plagiarism as “the presentation of another person’s thoughts or words or artefacts or software as though they were [your] own”. Students are expected to know the College and Department policies in detail and to avoid even the appearance of inappropriate behaviour. In the first demonstrated instance of plagiarism or other irregularities in this course, students normally will receive a 0 F for the course and will be referred to the department and College officials for further action. All course work is subject to scrutiny against past papers and other materials for irregularities. Electronic and other checks will be conducted; see the *STS student handbook* for additional information.

### **Attendance**

Regular attendance is mandatory.

### **Requirements to complete modules**

Students are required to be 'complete' in all modules. Normally all assignments must be attempted in order for students to be considered complete. This is different from 'passing' a module which requires a minimum overall module mark of 40%.

### **Assessment and additional examiners**

Assessed materials are marked by the course tutors. These provisional marks will be distributed to students at the first opportunity. To ensure fairness, materials subsequently are scrutinised by a second examiner within the Department, and a consensus is reached on these separate assessments. All assessed materials and the consensus marks are made available for scrutiny by an examiner external to UCL. Marks are considered final only after the Board of Examiners for Science and Technology Studies has approved them in their annual meeting near the close of Term three.

### **Disputed marks**

Students must endeavour to discuss any grievances over marks informally with the course tutor in the first instance. If informal discussion fails to resolve the matter satisfactorily and there appears to be genuine and substantive grounds for appeal, the student should submit a written explanation of their grievance to the chair of the board of examiners. A final formal written appeal can be made to the College Registrar.

### **Mechanisms for student feedback**

Students have a variety of means for commenting on the module and module tutor. These include written module evaluations at the end of term, regular lecture assessments offered by the module tutor, and in-session opportunities. Students are welcome to bring comments and criticisms to the module tutor in the first instance, by anonymous note if necessary, then to their personal tutor or the STS undergraduate tutor. The department schedules regular meetings of the Undergraduate Student Staff Consultative Committee to which all students are invited.