HPSC0013
Science and Popular Culture

Syllabus

<table>
<thead>
<tr>
<th>Session</th>
<th>2018-2019</th>
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<tbody>
<tr>
<td>Web site</td>
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<td>Moodle site</td>
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<tr>
<td>Timetable</td>
<td><a href="http://www.ucl.ac.uk/timetable">www.ucl.ac.uk/timetable</a></td>
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Description

Science and technology permeate popular culture. From the film Black Panther to the Facebook page ‘I F**king Love Science’, science and popular culture are deeply intertwined. In this module we explore science in popular culture using theories from sociology, cultural studies, media studies and post-colonial studies. We will develop our skills as critical consumers of science in popular culture across different media and understand why thinking broadly matters. We’ll watch films and TV programmes, we’ll explore science on social media, we’ll dissect skin cream adverts and we’ll visit museums. We’ll think too, about how popular culture influences science, such that science and popular culture may not be as separable as you might first think! Key themes of this module are 1) thinking about the relationships between producers and publics, 2) thinking about how science is represented (both in terms of who is represented and epistemology) and 3) thinking about science and popular culture in terms of dominant cultural practices. Key theories in this module are cultural consumption (and how this is affected by class, ‘race’/ethnicity, gender, sexuality, ability/disability and their intersections), communication theory, representation and social justice, post-colonial theory and theories about publics and participation.

Key Information

<table>
<thead>
<tr>
<th>Assessment</th>
<th>% 50</th>
<th>Media Analysis Project – 2500 words</th>
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<tbody>
<tr>
<td>Prerequisites</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Required texts</td>
<td>readings listed below</td>
<td></td>
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</table>
Module tutor

<table>
<thead>
<tr>
<th>Module tutor</th>
<th>Dr Emily Dawson</th>
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</thead>
<tbody>
<tr>
<td>Contact</td>
<td><a href="mailto:emily.dawson@ucl.ac.uk">emily.dawson@ucl.ac.uk</a></td>
</tr>
<tr>
<td>Web</td>
<td><a href="https://www.ucl.ac.uk/sts/people/dr-emily-dawson">https://www.ucl.ac.uk/sts/people/dr-emily-dawson</a></td>
</tr>
<tr>
<td>Office location</td>
<td>22 Gordon Square, Room B14</td>
</tr>
<tr>
<td>Office hours:</td>
<td>Tuesdays 11-12 or by appt. (email me!)</td>
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</tbody>
</table>

Aims and objectives

Aims

Science and technology permeate popular culture. From the film Black Panther to the Facebook page ‘I F**king Love Science’, science and popular culture are deeply intertwined. The relationships between science, technology and popular culture go beyond content (the stories told on screen) to include technical capacity (for instance, the post-production of films, breakthrough’s in VR for entertainment or the algorithms that govern our interactions with social media). Studies of science in popular culture usually focus on specific media, often one at a time, and how those media may (or may not!) have different affordances for different stakeholders. In this module we take a different approach and explore science in popular culture more broadly using theories from sociology, cultural studies, media studies and post-colonial studies. We will develop our skills as critical consumers of science in popular culture across different media and understand why thinking broadly matters.

We’ll watch films and TV programmes, we’ll explore science on social media, we’ll dissect skin cream adverts, we’ll visit museums and maker-spaces and we’ll think too about how popular culture influences science, such that science and popular culture may not be as separable as you might first think! Key themes of this module are 1) thinking about the relationships between producers and publics, 2) thinking about how science is represented (both in terms of who is represented and epistemology) and 3) thinking about science and popular culture in terms of dominant cultural practices. Key theories in this module are cultural consumption (and how this is affected by class, ’race’/ethnicity, gender, sexuality, ability/disability and their intersections), communication theory, representation and social justice, post-colonial theory and theories about publics and participation.

Objectives

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

- critically engage with a range of forms of science-related popular culture;
- demonstrate knowledge of the relevant literature for the module;
- demonstrate skills in qualitative discourse analysis;
- appreciate the complexity involved in the presentation of science in popular culture;

reflect on the role of popular culture in the evolution of scientific debate;
Module plan

Students’ responsibilities in this module will revolve around four components: seminar sessions, practical activities, an essay project, and a final exam.

Seminar sessions

*Your participation matters!* This is a participatory class where students help to design the curriculum and lead their own discussions and activities. On a weekly basis you will have academic and practical homework to do. On the weeks you have three essential readings I *promise* two of them are short! Each week you will need to read the essential readings (& any of the additional readings that you find interesting) and carry out any of the more practical tasks agreed on the week before. These will be things like asking your friends what forms of popular science they consume, watching a particular film or TV show, listening to a podcast, looking at something on social media, visiting museums, science centres, science festivals, science comedy events, a café scientifique, hackerspace and other ‘spaces’ of popular science as well as reading newspapers or parts of a novel.

**Week 1: Introduction**

This week we set the scene for what we will accomplish in our class together. Pragmatically, we will talk through the goals of the class, create some rules for our work together, discuss the assessment structure, map our the next nine learning sessions and figure out what we want to cover in week 9 (which has been left open for any science and popular culture theme that particularly interests us as a group). In terms of course content, we will talk about the theories that underpin this class, asking ourselves ‘what is popular culture’, ‘where is science in popular culture’ and ‘how can we understand the relationships between science and popular culture’. Drawing on ideas about leisure time, entertainment, politics and education, we will think about how science and popular culture go together.

**Essential readings:**

**Additional readings:**

Week 2: Films
This week we will have a think about the roles of science and technology in a number of popular films (these are likely to be Black Panther, Hidden Figures, Ghostbusters - original & remake - 2001: A Space Odyssey and possibly one of the Star Trek films). We will analyse how science and technology are represented in these films, what the implications of such representation might be and will discuss the socio-political and historic context of such representations. We will talk about media effects and communication theories and ask what happens when you watch these films? What do they mean? Who do they represent? How do they represent knowledge? What are the roles played by science and technology in the stories these films tell?

Essential

Additional

Week 3: TV
This week we will turn to the world of science on television. In terms of media forms, TV is often considered ‘low-brow’, ‘everyday’ or ‘popular culture’, but what does this mean when it comes to science? Television has been found to be a ubiquitous cultural practice in the UK, but should we assume that putting science on TV makes it accessible or helps people learn? This week we will learn more about media effects, communication theory, representation and cultural consumption. We will think about how science on TV sits within a legacy of socio-political issues about authority, knowledge and whose stories count.

Essential
Additional


**Week 4: News, newspapers, magazines and popular science ‘fact’ books**

Science and technology are in the news a lot. More than you might think given the extensive efforts around science popularisation, literacy and the deficit model of science communication. This week we examine how science is reported in the news. We learn more about media effects, specifically we will talk about framing, ‘churnalism’ and news values. In other words, what makes science newsworthy, why do some stories make it to print? As always we will be thinking about who produces and who consumes science in the news, and what roles print might play in terms of cultural consumption.

**Essential**


**Additional**


**Week 5: Advertising**

This week we explore the wonderful world of advertising. Ads are an undervalued by key part of the popular science landscape and they give us a really interesting context in which to debate how science, media and knowledge work together. Having already learnt about aspects of media effects we will apply these concepts about news values, truth values, authority,
communication theory and cultural practices to the practice of advertising. We will also think through the role of the market more explicitly than we have yet in terms of science and popular culture. We will spend a lot of this class directly with adverts and trying to analyse their content (so I’ve put some papers about analysis on the reading list for this week, this whole exercise is designed to give you some analytic skills in advance of your coursework project!).

**Essential**


**Additional**


****READING WEEK*****

**Week 6: Museums**

Of the various media we discuss in our class, museums are often seen as the most traditional, most dominant and most ‘high-brow’, ‘special’ or ‘elite’ forms of popular culture (to the extent that we might question just how popular they are!). This week we will visit a science museum (or similar science space – we will plan our visit together a few weeks in advance of this class). We will use all the ideas we have been learning about during our visit to become critical consumers of exhibits and to question what forms of knowledge, culture and practice are being validated and which are being rendered invisible or insignificant. To this end we will discuss questions of publics, producers and epistemology and, as always, the messy relationships between science and society.

**Essential**


**Additional**


### Week 7: Social media

Social media plays a contentious role in the popular science landscape. Part user-generated content, part ‘anti-science’ platform and at the same time, part of broader, socio-political histories of journalism, reporting, political debate and education. This week we will ask what science and technology ‘do’ on social media? How are they represented and how, technically, do they determine what we see when we go online? How does this medium (or is it media?) work in terms of what we have learnt about cultural consumption and high/low cultural forms?

**Essential**


**Additional**


### Week 8: Science fiction (comics, films, books, fan-fiction & more)

So far we’ve discussed various aspects of how science in popular culture can be understood in terms of epistemology (knowledge production) on a spectrum from fact to fiction. This week we’ll work on the idea of science fiction in its tradition sense, Sci-Fi, tales of aliens and other imagined futures. We’ll explore the role of Sci-Fi in popular science, and focus on both how Sci-Fi is understood and what ‘work’ these kinds of imaginaries do for science and society (including the
many wonderful worlds of ‘fandom’). I will argue that science and popular science are more closely intertwined than you might first think.

**Essential**


**Additional**

- We will also look at some actual sci-fi books, probably focusing on Afro-futurism, but we can make our list together!

**Week 9: OPEN THEME TO BE AGREED BY STUDENTS**

This week is ‘open’ for us to choose an issue, theme, medium or topic in science and popular culture to explore together. We’ll talk this through in week one and decide what we want to cover by week 2. For instance, this week we could focus on exploring how a scientific issue (such as climate change or cures for cancer) plays out across a range of popular culture media. Or we could examine a medium we’ve not focused on (such as gaming, podcasts/radio, science in popular music etc). Or we could look at an aspect of popular science production (we could make an exhibit, blog post, comic, film script etc), a specific audience/public (the ‘silver’ screen), or a set of theories you want to discuss in more detail (maybe you will all develop a passion for Foucault!).

**Essential**: TBC. I will update moodle with the readings & activities you choose.

**Additional**: TBC. I will update moodle with the readings & activities you choose.

**Week 10: The system**

In this final class we will talk about how all the different media we have examined in our class can be understood as a *system* and what that might mean. We will draw on work in cultural studies, media studies, sociology and sociology of education to explore the relationships between media producers, consumers, knowledge and society. I will argue that while on the one hand these are relationships of power that recreate social inequalities, there are (as we have seen in some of our examples so far) moments of resistance and transgression that make space for change. Change, not only for science, but for our societies too. We will also make time to talk about the closed exam in Term 3 and how best to plan your preparation for it.

**Essential**


**Additional**

# Schedule

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<thead>
<tr>
<th>UCL Wk</th>
<th>Date</th>
<th>Topic</th>
<th>Preparation Activity</th>
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<tbody>
<tr>
<td>6</td>
<td>02/10</td>
<td>Introduction</td>
<td>Essential readings Have a think about where you consume science in popular culture!</td>
</tr>
<tr>
<td>7</td>
<td>09/10</td>
<td>Films</td>
<td>Essential readings Practical activities to be agreed in class</td>
</tr>
<tr>
<td>8</td>
<td>16/10</td>
<td>TV</td>
<td>Essential readings Practical activities to be agreed in class</td>
</tr>
<tr>
<td>9</td>
<td>23/10</td>
<td>News, newspapers, magazines and popular science ‘fact' books</td>
<td>Essential readings Practical activities to be agreed in class</td>
</tr>
<tr>
<td>10</td>
<td>30/10</td>
<td>Advertising</td>
<td>Essential readings Practical activities to be agreed in class</td>
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<tr>
<td></td>
<td>6/11</td>
<td>Reading Week</td>
<td>no seminar</td>
</tr>
<tr>
<td>12</td>
<td>13/11</td>
<td>Museums</td>
<td>Essential readings Practical activities to be agreed in class</td>
</tr>
<tr>
<td>13</td>
<td>20/11</td>
<td>Social media</td>
<td>Essential readings Practical activities to be agreed in class</td>
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<tr>
<td>14</td>
<td>27/11</td>
<td>Science fictions (comics, films, books, fan-fiction &amp; more)</td>
<td>Essential readings Practical activities to be agreed in class</td>
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<tr>
<td>15</td>
<td>04/12</td>
<td>Open theme</td>
<td>Essential readings Practical activities to be agreed in class</td>
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<tr>
<td>16</td>
<td>11/12</td>
<td>The system</td>
<td>Essential readings Practical activities to be agreed in class</td>
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Reading list

As above in week by week sections
Assessment

summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Deadline</th>
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<tr>
<td>CW Media Analysis Project</td>
<td>12/12, at 17:00 pm</td>
<td>07/01/2019</td>
<td>2500</td>
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<tr>
<td>CE 3h Closed Examination</td>
<td>Date TBC.</td>
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AFFILIATE STUDENTS (Registered for HPSC2002A) PLEASE NOTE:
As you are not able to attend the final exam, because you will not be here in term 3, you need to write an additional essay of 2,500 words. Essay prompts are listed below.

The deadline for submitting this essay is 8th of January 2019, 23:59.

Coursework

Media Analysis

For this assignment, you will have to select ONE piece of science in popular culture and you will need to critically analyze it, in an argumentative fashion. This can be:

- A feature published in a newspaper
- A popular science book
- A Novel
- A Museum or Science Centre Display
- An image (photograph, painting, portrait)
- A film (fiction or documentary)
- A TV programme
- A website (including blogs)
- A theater play
- An advertisement
- A podcast
- A radio show
- A childrens book
- A youtube vlog (or channel – but we would need to discuss this)
- Microblogging (but we would need to discuss exactly what!)

Depending on your choice, different methods of analysis will be at your disposal. But, whatever your method, your analysis should try and answer the following questions:

- What is the piece under scrutiny about?
- Why did you choose it?
- How does it relate to the topic of the course (science in popular culture)? And what makes it interesting in relation to that topic?
• How do the theories discussed in this course apply to your chosen media item? (i.e. media effects, news values, representation, cultural consumption and so on).

• What does analyzing this piece of science in the media enable you to claim about science in popular culture?
  o What kind of relationship between science and popular culture does your object of analysis foster?
  o How is it situated in relation to the production of knowledge?
  o What kind of participation in science does it encourage?
  o What is its contribution in defining the cultural boundaries of science?

Please please please (!) think about what you want to do early on in term and come and talk to me about it during my office hours. This is a really creative assessment and some people have a lot of fun with it, but it is really useful to have support figuring out your project so that you don’t get overloaded, take on something too big, or take on something too small.

Essay Prompts for Affiliate Students will be co-developed with Affiliate Students as appropriate.

Assessment criteria for all essays (Media analysis and Affiliate Students) are those found in the STS students’ handbook and reproduced on the next page.
### STS BSc criteria for assessment (general)

<table>
<thead>
<tr>
<th>Mark</th>
<th>Grade</th>
<th>Description</th>
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| >70 | A (1st) | Distinction. Because this covers a range of thirty points, the following breakdown has been introduced as a guideline:  
   A++ (85-100): Marks awarded to truly exceptional pieces of work. Marks of 90 and above are reserved for research deemed to represent full mastery of the subject, likely publishable in high-quality journal.  
   A+ (80-84): Satisfies all of the requirements for an ‘A’ grade (see below), with additional originality, sophistication, or skill going beyond what is expected.  
   A (75-79): Satisfies all of the requirements for an ‘A’ grade (see below), but also demonstrates originality, impressive original research, higher critical ability, and a high degree of analytic/synthetic skill. Goes significantly beyond lecture materials and course readings.  
   A- (70-74): Performs the assigned task to an excellent standard, with accuracy and sufficient detail, without significant errors, no major shortcomings. In an essay, a work in this range should use a good number of appropriate sources, go beyond the material covered in lectures, and demonstrate critical ability, analytic/synthetic skills, and impressive research skills. |
| 60-69 | B (2i) | Good. Some critical thinking or reflection demonstrated. Many relevant points made, clearly argued, accurate and coherent. Includes major points in the course material and shows appreciation of their importance. |
| 50-59 | C (2ii) | Satisfactory. A solid piece of work but with gaps, errors or minor misconceptions. |
| 40-49 | D (3rd) | Poor. Inadequately argued and poorly documented. Provides some relevant information but omits many important points and contains a substantial number of errors or misconceptions. Little tie to relevant sources. 40 – This is the minimum passing mark. Barely sufficient evidence to avoid failure, with only a rudimentary knowledge of the subject; contains irrelevant material or significant errors and misconceptions. |
| 0-39 | F* (fail) | Failure. Inadequate in conception, substance or argument. F+ (35-39): A failing item, but one which could be brought to pass standard if either more information was provided, or better use was made of the information. When applied to whole courses, the student may be eligible for referred (supplemental) assessment. F (20-34): Contains some correct items of information not centrally relevant to the topic. F- (0-19): Completely inadequate in conception, substance and argument. No understanding of the course material demonstrated. |

**Important policy information**

Details of college and departmental policies relating to modules and assessments can be found in

The STS Student Handbook.

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