SCIF1004 Science and the Cinema

Key dates:

- 2\textsuperscript{nd} December to 6\textsuperscript{th} December, 2013 (attendance at UNSW – mandatory attendance, no other options)

- 6\textsuperscript{th} December to December 19\textsuperscript{th}, 2013 (distance learning; only internet access and some time required. No fixed timetable, attendance at UNSW not required. Deadlines on the 15\textsuperscript{th} and 19\textsuperscript{th} December – can’t make these deadlines? Contact the course coordinator before the 2\textsuperscript{nd} December to discuss other options)

General Information and Assessment Tasks

Welcome to SCIF1004 Science and the Cinema! The objectives of the course are for you to learn some basic science and to think about how science is portrayed to the general public by the movie industry. The sorts of questions I hope we manage to consider are things like, Is science portrayed well and accurately? Does it matter if the science is distorted if it helps the plot of a movie? As well I hope you learn a little about DNA analysis, genetically modified organisms, climate change, nanotechnology and viruses. Most of all we hope the course is not only a good learning experience but that you enjoy it. We have tried to make the course as active as possible so besides watching movies and receiving lectures about the basic science there will be class discussions about how well the science is represented in the films and a final debate. How much you get out of it will, to some degree, be determined by how much you put in so please be brave and get actively involved in class discussions and debates.

SCIF1004 is a 6 UoC course, which is an expanded version of the 3 UoC GENS1004 (stopped running in 2011). It features one week intensive contact on campus, followed by some small additional online tasks (only internet access required; can be performed anywhere in the world, no need to return to UNSW at any stage)

It features one week of intensive contact, on campus, between Monday 2\textsuperscript{nd} December and Friday 6\textsuperscript{th} December (timetable below). Attendance is compulsory and participation in the debate session on Friday 6\textsuperscript{th} December an essential prerequisite for completion of this course. This week will involve watching five films (assessment: quizzes after each film). You will be assigned to groups of three, and participate in a debate covering scientific issues explored in one or more of the films (debates assessed as they are performed).

In the online assessments, you will be given online access to watch a further five films on similar scientific areas. You can watch these anytime, anyplace, but must complete assessed quizzes on Moodle on each film before midnight Sunday 15\textsuperscript{th} December. In your debate group of three you will also be required to write a short newspaper article (due midnight Sunday 15\textsuperscript{th} December) and a more general piece on ‘Science and the Cinema’ (due midnight Thursday 19\textsuperscript{th} December, 2012), with all group work and submission online only.
A breakdown of the assessment tasks and deadlines has been included below:

1) **Quizzes after each film (week 1, 2\(^{nd}\) – 6\(^{th}\) December)**
   - These are worth 15% of the course.
   - There is one quiz associated with each film.
   - Each quiz will be handed out prior to viewing the film and the questions will be answered during the film.
   - The purpose of the quizzes are to direct you to think about the science which is occurring in the film as you watch it.

2) **Debate**
   - This is worth 30% of the course and **attendance is compulsory**
   - Debates will be held on the morning of Friday, 6\(^{th}\) December, between 9am and 12pm.
   - Assignment to debate groups (of three people) will be made via Moodle, including a debate topic, the positive or negative side of the debate and a debate room. It is your responsibility to contact team members and assign tasks.
   - On Friday, 6\(^{th}\) December, 9 am (SHARP!), the debates will be held in one of ten rooms in the Law Building.
   - The debates will cover scientific issues explored in one or more of the films.
   - The debates will be marked as they are presented.

3) **Online quizzes after each online film**
   - These are worth 15% of the course.
   - You will be given access to four films which you can watch online, anytime, anywhere in the world. Before midnight Sunday 15\(^{th}\) December you are expected to have watched them, and answered an online quiz for each film.
   - The purpose of the quizzes are to make sure you can now pick up on the science which is occurring in the film – by yourself – as you watch it.

4) **Newspaper article**
   - This is worth 10% of the course.
   - You will work with your group of three from the debate team to write a newspaper article for the science section of a newspaper. You are expected to communicate via Moodle, or other options such as GoogleDocs.
   - As you have seen from the films, science and scientists can have a positive and a negative impact on our lives. Write an article under one of the two headlines “Scientific Research Assures a Bright Future” or “Science: Taking Us to the Dark Side”.
   - Include in your article at least four scientific examples from four different movies (you are not restricted to movies you have seen in this course). For each example you should explain the scientific concept and contrast its portrayal with reality (as necessary), ensuring you make reference to your sources of information.
   - The article is to be 1000 words (max.).
   - The article is due before midnight Sunday 15\(^{th}\) December.
   - 20% penalty to marks will be applied per day late; online submission only.
5) **A piece on ‘Science and the Cinema’**
- This is worth 30% of the course
- Having successfully collaborated with your group of three from the debate team to write a newspaper article, you will work together to prepare the final submission on the general topic of ‘Science and the Cinema’.
- This can be on any topic under the heading of ‘Science and the Cinema’ based upon your feelings after this course. An example is whether it is positive or negative that ‘science’ is used artistically in Hollywood films, or if its use should be regulated, *etc*.
- We are open to different formats; it can be a feature newspaper article, an editorial piece, or a magazine article (2000 words max.). Alternatively, it can be a comic, a website or a short film, *etc.* providing all members of the group can contribute. Some forms (poems, paintings) are not acceptable unless as part of a written-based piece. Please contact the course coordinator if you are unsure if your ideas are appropriate, or how to submit large/unusual formats.
- Due before midnight Thursday 19th December.
- 20% penalty to marks will be applied per day late; online submission only.
- The group with the highest marked piece will be informed and congratulated by e-mail; we will consider assisting in the publication of exceptional submissions.

The timetable for Week 1 of the course is:

<table>
<thead>
<tr>
<th>Day, Place</th>
<th>Academic</th>
<th>Time</th>
<th>What’s happening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday 2nd December, <em>Central Lecture Block 7</em></td>
<td>A/Prof. Julian Cox</td>
<td>9-1</td>
<td>Introduction Lecture: Viruses Film: Outbreak</td>
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<td>Monday 2nd December, <em>Central Lecture Block 7</em></td>
<td>Dr. Leigh Aldous</td>
<td>2-5</td>
<td>Lecture: Nanotechnology Film: (various)</td>
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<td>Tuesday 3rd December, <em>Central Lecture Block 7</em></td>
<td>Prof. Mike Archer</td>
<td>9-12</td>
<td>Lecture: Cloning Film: Jurassic Park</td>
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<td>Wednesday 4th December, <em>Central Lecture Block 7</em></td>
<td>Dr Alex Sen Gupta</td>
<td>9-12</td>
<td>Lecture: Climate change Film: Day After Tomorrow</td>
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<td>Thursday 5th December, <em>Central Lecture Block 7</em></td>
<td>Prof. Merlin Crossley</td>
<td>9-12</td>
<td>Lecture: DNA, genes and gene chips Film: GATTACA</td>
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<td>Friday 6th December, <em>Location to be advised</em></td>
<td>Academic staff and PG students</td>
<td>9-12</td>
<td>Give debates</td>
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On Tuesday afternoon we will assign you to debate groups and give you your debating topic. Wednesday and Thursday afternoons have been put aside as dedicated time for your group to prepare for the debate.

Any problems, contact the course coordinator.

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SCIF1004

Debates

The debates are related to the scientific issues explored in cinema. Therefore all the films are relevant to your assigned debate topic and you can use all films as examples for the argument you are presenting. We would like you to construct your arguments using science rather than mere rhetoric. You are also entitled to use other examples which you have obtained from other sources, including your memory, though citation of reputable sources of information would be better.

The debate is to be structured in a similar way with three speakers for the affirmative and three for the negative.

1) The Karl Popper Debate Format will be used where the speaker order is:
   - A1: S/he presents the focus of argumentation and the basic arguments of his/her side
   - N1: Her/his primary task is to deal with the arguments of the affirmative side (i.e. to refute or accept them). After s/he thinks s/he has managed his/her task, s/he shall present his/her team’s case and major arguments.
   - A2: Supports the arguments of A1 which have been challenged by N1 and also refutes the negative case presented by N1
   - N2: Challenges the rebut of A2 and the new arguments presented by A2 and presents further argument for the negative
   - A3: Challenges N2 and sums up arguments of both sides which proves the argument of the affirmative side is correct
   - N3: Challenges A3 and sums up arguments of both sides which proves the argument of the negative side is correct

2) Each speaker has up to three minutes.
3) There will be time set aside for questions from the floor and the opposition teams. The winning team (victory carries no marks) will be decided by acclaim from the floor.
4) Marks awarded by the academic will be decided on the arguments presented by each team and the answers to questions presented.

Debate topics

These may change before (but not after…) they are assigned to groups.

1. Developments in genetic testing are good for society
2. Regulation of cloning research should be minimal
3. Remaining stocks of smallpox virus should be destroyed
4. With the depletion of the world oil reserves nuclear energy should be exploited as an alternative energy source.
5. The influence of human activity on climate change has been exaggerated