

ARHM 2343: Science and Popular Culture

Science and Humanities - Fall 2015 - Syllabus

Draft

1 Course Information

Meeting Time: Tuesday, 7:00pm-9:45pm

Meeting Location: FO 1.202

Instructor: Professor Matthew J. Brown (mattbrown@utdallas.edu)

Office Hours: TBD

2 Course Description

This course will focus on portrayals of science in popular culture. *Science* is a process of research and inquiry, usually involving empirical evidence, which we will take to include natural, human, and social sciences as well as medical research and engineering. *Popular culture* includes fiction and non-fiction across all forms of media—such as printed text, art, film, television, comic books, and digital media—that is intended for a general audience. This course will have three main units: (I) *Representations of Scientists*, (II) *The Scientific Process*, and (III) *Science in Society*. Specific topics will include *The Mad Scientist*, *Scientist as Intrepid Explorer*, *Scientist as Nerd*, *Science as Religion / Myth*, and *Science and Nationalism*.

3 Required Texts

3.1 Books

The following books are required reading

- *The Island of Doctor Moreau* by HG Wells
- *At the Mountains of Madness* by HP Lovecraft

- *Feynman* by Jim Ottaviani
- *Contact* by Carl Sagan
- *Intuition* by Allegra Goodman
- *A Briefer History of Time* by Stephen Hawking
- *Forty Signs of Rain* by Kim Stanley Robinson

Books have been ordered at [Off Campus Books](#), and likely cannot be found at the on-campus Follett University Bookstore. My preference is that you order the version of the books that are available there, or linked below via Amazon, so that we can refer to shared page numbers in class discussion. Hard copies are preferred for the same reason. You may use a distraction-free eReader version with prior approval of the instructor. Off Campus Books is a locally-owned business, and you should consider supporting it over ordering online.

3.2 Films

The following films will need to be watched outside of class. I will make an effort to schedule screenings for each of these movies prior to class.

- Real Genius (1986) by Martha Coolidge
- Primer (2004) by Shane Carruth
- Creation (2009) by John Amiel
- Gorillas in the Mist (1988) by Michael Apted (optional)

The most economical way to watch any of these movies will be to check various streaming services.

4 Detailed Schedule

1. 8/25 - Introduction

- Watch in class: Star Trek, “The Devil in the Dark”; The Venture Brothers, “Careers in Science”

Unit: Representations of Scientists

2. 9/1 - The Mad Scientist

- Read before class: The Island of Doctor Moreau by HG Wells
- Watch in class: Dr. Horrible’s Sing-a-Long Blog
- Selected passages and clips for class: Frankenstein; Jekyll and Hyde the Musical; The Fly; Soon I Will Be Invincible; Pi; Fringe; Rick and Morty

3. 9/8 - **The Nutty Professor**

- Read before class: Jim Ottaviani, Feynman
- Watch in class: Futurama, “Time Keeps on Slipping”
- Selected passages and clips for class: IQ; The Nutty Professor; Back to the Future; Jurassic Park; Independence Day; The Venture Brothers; Richard Feynman; The Adventures of Buckaroo Banzai Across the 8th Dimension

4. 9/15 - **Scientist as Intrepid Explorer**

- Read before class: At the Mountains of Madness by HP Lovecraft
- Selected passages and clips for class: Antarctic Expeditions (Scott, Amundsen, Shackleton); Cosmos; Outbreak; Star Trek; The Venture Brothers; Indiana Jones

5. 9/22 - **The Nerd**

- Watch before class: Real Genius
- Watch in class: Big Bang Theory, “Pilot”
- Selected passages and clips for class: Weird Science; Honey I Shrank the Kids; Goonies; Revenge of the Nerds; Spiderman; Agents of S.H.I.E.L.D.; Dexter’s Laboratory

6. 9/29 - **Women in Science**

- Read before class: Contact by Carl Sagan
- Read / watch before class (optional): Gorillas in the Mist
- Selected passages and clips for class: N.C.I.S; Bones; Big Bang Theory; Dignifying Science by Jim Ottaviani; Adventure Time; Bletchley Circle; X-Files; Emily Graslie; Amazing Spiderman; Jurassic Park; Thor

7. 10/6 - *Midterm*

Unit: The Scientific Process

8. 10/13 - **Science as a Social Process**

- Read before class: Intuition by Allegra Goodman

9. 10/20 - **Scientific Discovery as Serendipity**

- Watch before class: Primer
- Selected passages and clips for class: Newton’s Apple; Poincare’s Bus; Kekule’s Ouroboros; Fleming’s Mold; NASA’s accidental warp drive

10. 10/27 - **Science as Personal Journey**

- Watch in class: Creation

11. 11/3 - **Misrepresentations and Irresponsibility in Science**

- Read before class: Leonard Sax, Why Gender Matters (selections) and Lise Eliot, “The Trouble with Sex Differences”
- Revisit: Intuition; Real Genius; Primer
- Selected passages and clips for class: Media reports on science; Harry Harlowe; Robocop; Jurassic Park; Breaking Bad; Tuskegee; HeLa; J. Marion Sims

Unit: Science in Society

12. 11/10 - **Science as Religion / Myth**

- Read before class: Stephen Hawking, A Briefer History of Time
- Watch in Class: Cosmos (Carl Sagan); Cosmos (Neil deGrasse Tyson)

13. 11/17 - **Science and Nationalism**

- Read before class: Forty Signs of Rain by Kim Stanley Robinson part I (There will be a quiz)
- Watch in Class: Copenhagen
- Selected passages and clips for class: 2010: The Year We Make Contact; Doctor Strangelove; J. Robert Oppenheimer

14. 11/24 - *Fall break*

15. 12/1 - **Science Informing Politics**

- Finish reading before class: Forty Signs of Rain by Kim Stanley Robinson
- Selected passages and clips for class: IPCC Report; Wonder Woman

16. 12/8 - **Science Changing Culture**

- Read in class: Wonder Woman Archives (selections); William Moulton Marston, The Emotions of Normal People (selections)

5 Requirements

1. Attendance and participation
2. Midterm exam
3. Show and tell – Bring an example of pop culture fitting daily theme and critically analyze it.
4. Final exam – Essay format
5. Quizzes as needed – to ensure students are keeping up with reading assignments