

Science Fiction and the History of Science

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Text: Leonard Mlodinow, *The Upright Thinkers: The Human Journey from Living in Trees to Understanding the Cosmos* (2015) ISBN-10: 0345804430

Class Description and Objectives: This course will examine current and historical writings of science fiction in the context of the history of scientific and technological developments.

Class participation and discussion is expected.

Grading Policies: Grades will be determined on the following basis:

Quizzes	60%
Term Paper	30%
Class Participation	10%

Grades: A: 90 - 100% B: 80 - 89% C: 70 - 79% D: 60 - 69% E: 0 - 59%
(Grades at the high or low ends of these ranges will earn plus and minus grades.)

Readings: The readings for each day are available on Canvas or listed on the Schedule in this syllabus.

Quizzes: There will a short quiz every day at the beginning of class. Each quiz will be based on the readings that you were given for that day, or will be given on the content of the previous class's presentations. There may also be a couple of questions from previous quizzes' content.

Book Presentation: Each student will read an additional book from a list to be distributed by the instructors. The student should research book reviews and academic papers on the book, if they exist. Each student will give a ten-minute presentation on their book. The presentation will explain who wrote the book, a very brief description of the characters and plot, and why this is an important book.

Term Paper: A twelve page paper on any topic covered in the course is required. You may turn in an early draft for the instructors to critique and we will return the critiqued draft one week later. The final draft is due on April 11. The content can be a personal essay, a research paper with citations, or a short story.

Cheating Policy: Cheating and deceit are not accepted at Weber State University. Cheating on an quiz or assignment, or turning in someone else's work as your own, will result in an E for the class. You may work together on your assignments and papers, but you must turn in your own work. If you quote from a book, article, or web site, you must properly quote and cite your work. Avoid even the appearance of cheating or plagiarism.

Cell Phones, Texting, and Laptops: Put your cell phones on vibrate. Try to avoid leaving class to take a call, but an occasional emergency is understandable. There will be NO texting in this class. Laptops or other personal digital tools may be used to take notes or look up material relevant to class discussions. No other uses of laptops will be tolerated.

Students with Disabilities: Any student requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in Room 181 of the Student Service Center. SSD can also arrange to provide materials (including this syllabus) in alternative formats if necessary.

Campus Closure: In the event of an extended campus closure, please look at your Weber State email in order for instructions on how we will continue the class via email and the Canvas online course system.

WSU Recycling Policy:

Weber State University is dedicated to being a leader in sustainability to ensure present needs are met without compromising the ability for future generations to inherit a healthy planet, society, and economy. Part of this commitment includes sustainable waste management practices with the ultimate goal of becoming a zero-waste campus. In order to achieve this goal, it is up to the WSU community to be informed about the various recycling policies on campus.

Please recycle following items on campus: plastics #1 & #2 (rinsed), cardboard, non-glossy paper, & metal cans.

*Please look at plastic identification symbol on the bottom of plastic bottles & jugs before recycling.

For more information on recycling at WSU, please reference Energy & Sustainability Office website.

Isaac Asimov's Three Laws of Robotics:

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey orders given it by human beings except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

Arthur C. Clarke's three laws:

1. When a distinguished but elderly scientist states that something is possible, he is almost certainly right. When he states that something is impossible, he is very probably wrong.
2. The only way of discovering the limits of the possible is to venture a little way past them into the impossible.
3. Any sufficiently advanced technology is indistinguishable from magic.

Schedule:

Week	Tuesday	Thursday
January 8	Introduction to class (no quiz) <i>They're Made Out of Meat</i> short film	Read Mlodinow, chapter 1 Readings on Canvas.
January 15	Read Mlodinow, chapter 2 Readings on Canvas.	Read Mlodinow, chapter 3 Readings on Canvas.
January 22	Read Mlodinow, chapter 4 Readings on Canvas.	Read Mlodinow, chapter 5 Readings on Canvas.
January 29	Read Mlodinow, chapter 6 Readings on Canvas.	Read Mlodinow, chapter 7 Readings on Canvas.
February 5	Read Mlodinow, chapter 8 Readings on Canvas.	Read Mlodinow, chapter 9 Readings on Canvas.
February 12	Read Mlodinow, chapter 10 Readings on Canvas.	No class today (LTUE).
February 19	Media discussion (to be assigned)	Read Mlodinow, chapter 11 Readings on Canvas.
February 26	Read Mlodinow, chapter 12 and Epilogue Readings on Canvas.	Media discussion (to be assigned)
March 5	Spring Break	Spring Break
March 12	Readings on Canvas. Presentations #1 and #2	Readings on Canvas. Presentations #3 and #4
March 19	Readings on Canvas. Presentations #5 and #6	Readings on Canvas. Presentations #7 and #8
March 26	Media discussion (to be assigned)	Readings on Canvas. Presentations #9 and #10
April 2	Readings on Canvas. Presentations #11 and #12	Readings on Canvas. Presentations #13 and #14
April 9	Readings on Canvas. Presentations #15 and #16	Media discussion (to be assigned) Term Paper due
April 16	Readings on Canvas. Presentations #17 and #18	Spare day
April 23	NO Final Exam	

Science Fiction Book Reading List

Ordered by publication date:

Mary Shelley, *Frankenstein* (1818)

H.G. Wells, *The Time Machine* (1895) or *War of the Worlds* (1897)

Edgar Rice Burroughs, *A Princess of Mars* (1912)

Aldous Huxley, *Brave New World* (1932)

George Orwell, *1984* (1949)

Arthur C. Clarke, *Childhood's End* (1953)

Isaac Asimov, *Foundation* Trilogy (1953)

Ray Bradbury, *Fahrenheit 451* (1953)

Robert Heinlein, *Starship Troopers* (1959)

Walter M. Miller, Jr., *A Canticle for Leibowitz* (1959)

Frank Herbert, *Dune* (1965)

Anne McCaffery, *Dragonflight* (1968)

Larry Niven, *Ringworld* (1970) or *Lucifer's Hammer* (1977)

Joe Haldeman, *The Forever War* (1974)

William Gibson, *Neuromancer* (1984)

David Brin, *Startide Rising* (1985)

Carl Sagan, *Contact* (1985)

Octavia Butler, *Dawn* (1987)

Michael Crichton, *Jurassic Park* (1990)

Neal Stephenson, *Zodiac* (1988) or *Snow Crash* (1992) or *Seveneves* (2015)

Vernor Vinge, *A Fire Upon the Deep* (1992)

Orson Scott Card, *Pastwatch: The Redemption of Christopher Columbus* (1996)

John Scalzi, *Old Man's War* (2005) or *Lock In* (2014)

Andy Weir, *The Martian* (2011)

N.K. Jemisin, *The Fifth Season* (2015)

List of SF stories or essays for Honors 4920

January 10

Davis Brin, "The Heresy of Science Fiction," *Insistence of Vision* (2016)
0000DavidBrin_TheHeresyOfScienceFiction.pdf

January 15

First two chapters of Jules Verne *From the Earth to the Moon* (1877)
http://www.online-literature.com/verne/earth_to_moon/

January 17

"Kepler's Somnium: Science Fiction and the Renaissance Scientist"
1634KeplerEssay.pdf

January 22

Edmond Hamilton, "Devolution," *Amazing Science Fiction Stories* (December 1936)
Pages 90-101 of 1936AmazingStories.pdf

January 24

Isaac Asimov, "Nightfall," *Astounding Science-Fiction* (September 1941)
1941IsaacAsimovNightfall.pdf

January 29

Fredric Brown, "Arena," *Astounding Science Fiction* (1944)
1944FredricBrownArena.pdf

January 31

Murray Leinster, "A Logic Named Joe," *Astounding Science Fiction* (March 1946)
http://www.baen.com/chapters/W200506/0743499107___2.htm

David L. Ferro and Eric G. Swedin, Introduction and Chapter 3 "Murray Leinster and 'A Logic Named Joe'," *Science Fiction and Computing: Essays on Interlinked Domains* (2011)
1946FerroSwedinAnalysisALogicNamedJoe.pdf

February 5

No fiction reading.

February 7

Robert A. Heinlein, "The Green Hills of Earth," *Saturday Evening Post* (1947)
1947RobertA.HeinleinGreenHillsOfEarth.pdf

February 12

Ray Bradbury, "Mars Is Heaven!" *Planet Stories* (Fall 1948) -
read pages 56-66 of 1948PlanetStories.pdf

February 14

No class.

February 19

Media discussion.

February 21

Arthur C. Clarke, "The Sentinal of Eternity" *10 Story Fantasy* (1951)
Read pages 41-47 of 1951ArthurCClarkeTheSentinal.pdf

February 26

Arthur C. Clarke, "The Nine Million Names of God" (1953)
1953TheNineBillionNamesOfGod.pdf

Daniel Keyes, "Flowers for Algernon," *The Magazine of Fantasy and Science Fiction* (1959)
1959FlowersForAlgernon.pdf

February 28

Media discussion.

March 12

William Lee, "Junior Achievement," *Analog* (July 1962)
<https://www.gutenberg.org/files/27665/27665-h/27665-h.htm>

Larry Niven, "Neutron Star," *Worlds of If* (October 1966)
1966LarryNivenNeutronStar.pdf

March 14

Brian Aldiss, "Supertoys Last All Summer Long," *Supertoys Last All Summer Long and Other Stories of Future Time* (1969)

<http://briandaldiss.co.uk/writing/story-collections/collections-r-z/supertoys-last-all-summer-long/>

Larry Niven, "Inconstant Moon," *All the Myriad Ways*, 1971.

1971LarryNivenInconstantMoon.pdf

March 19

P. J. Plauger, "Child of all Ages" *Analog* (1975)

1975PJPlaugerChildOfAllAges.pdf

Orson Scott Card, "Ender's Game" *Analog* (August 1977) - the original short story

<http://www.hatrack.com/osc/stories/enders-game.shtml>

March 21

George R. R. Martin, "Sandkings" *Omni* (August 1979)

1979GeorgeRRMartinSandkings.pdf

Barry B. Longyear, "Enemy Mine" *Isaac Asimov's Science Fiction Magazine* (September 1979)

Kindle version, \$2.99 (Original version)

<https://www.amazon.com/ENEMY-MINE-Barry-B-Longyear-ebook/dp/B007AIPP6E/>

March 26

Media discussion.

March 28

Greg Bear, "Blood Music," *Analog* (June 1983)

1983GregBearBloodMusic.pdf

Octavia E. Butler, "Bloodchild," *Isaac Asimov's Science Fiction Magazine* (June 1984)

1984OctaviaButlerBloodchild.pdf

April 2

Harry Turtledove, "The Road Not Taken" *Analog* (November 1985)

1985HarryTurtledoveTheRoadNotTaken.pdf

Eric G. Swedin, one chapter and the Conclusion from *When Angels Wept: A What-If History of the Cuban Missile Crisis* (2010)

2010EricSwedinWhenAngelsWeptChapterConclusion.pdf

April 4

Isaac Asimov, "Robot Dreams" *Isaac Asimov's Science Fiction Magazine* (December 1986)
1986IsaacAsimovRobotDreams.pdf

Kate Wilhelm, "Naming the Flowers," *Magazine of Fantasy and Science Fiction* (Feb. 1993)
1993KateWilhelmNamingTheFlowers.pdf

April 9

Ted Chaing, "Hell Is the Absence of God," *Starlight 3* (2001)
2001TedChaingHellIsTheAbsenceOfGod.pdf

Mary Robinette Kowal, "Evil Robot Monkey," *The Solaris Book of New Science Fiction: Volume Two* (2008)
2008MaryRobinetteKowalEvilRobotMonkey

April 11

Media discussion.

April 16

Rebecca Roanhorse, "Welcome to Your Authentic Indian Experience™" *Apex Magazine*
(August 2017)
<https://www.apex-magazine.com/welcome-to-your-authentic-indian-experience/>

April 18

TBA