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The University of Arizona
ASTR 325: Science and Science Fiction
Dr. Richard L. Poss
Fall 2016

Description:

This course uses science fiction narratives to stimulate discussion and argument about future advances in science and what those advances might do to society. Changes brought on by science and technology have social, political, psychological, spiritual, and philosophical dimensions, and may involve aspects of race, gender, social class, and the construction of personal identity. We will try to come to an understanding of science fiction as a modern art form intimately involved with humanity's progress in science and technology. Students should be aware that a great deal of reading is required in this course. Classroom sessions will be a combination of lecture and discussion, and may include demonstrations and short videos. Participants will study the materials first, and then we will discuss them in class. There will be reading quizzes, mid-term exams, a final exam, small writing assignments, and a research project.

Required Texts:

James Benford and Gregory Benford, *Starship Century: Toward the Grandest Horizon*.
Microwave Sciences, 2013.

Orson Scott Card, ed., *Masterpieces: The Best Science Fiction of the Twentieth Century*.
Ace paperbacks, 2001.

Arthur C. Clarke, *Childhood's End*. Del Rey, 2016.

D.G. Hartwell, and K. Cramer, Editors, *Year's Best SF 14*.

Nancy Kress, *Beggars in Spain*, Eos: Harper/Collins, 2004.

Course Outline: *(This class meets Mon/Wed/Fri from 2:00 pm to 2:50 pm in Steward 204.)*

Mon.	Aug. 22	Introduction and Overview: What can we expect from this class?
Wed.	Aug. 24	What is Science Fiction? Genres and sub-genres. Scientific Method. Case Studies: John Kessel, "A Clean Escape."
Fri.	Aug. 26	Case Studies: Anne McCaffrey, "The Ship Who Sang."
Mon.	Aug. 29	Origins: A Short History of Science Fiction. Jules Verne. H.G. Wells.
Wed.	Aug. 31	The Golden Age: Asimov, Heinlein, Clarke, Bradbury.
Fri.	Sept. 2	Poul Anderson, "Call Me Joe." Robert A. Heinlein, "All You Zombies." Ray Bradbury, "Dark They Were, and Golden-Eyed."
Mon.	Sept. 5	<i>Labor Day – No Classes</i>
Wed.	Sept. 7	Isaac Asimov and Robotics: "Robbie." "Robot Dreams."
Fri.	Sept. 9	Arthur C. Clarke, <i>Childhood's End</i> .
Mon.	Sept. 12	Arthur C. Clarke, <i>Childhood's End</i> .
Wed.	Sept. 14	James Blish, "A Work of Art."
Fri.	Sept. 16	Daniel Keyes, "Flowers for Algernon."

Mon.	Sept. 19	James Tiptree, Jr., "The Women Men Don't See."
Wed.	Sept. 21	Feminist Science Fiction: Joanna Russ, Octavia Butler, Pat Cadigan.
Fri.	Sept. 23	Ursula K. Le Guin, "The Ones Who Walk Away From Omelas."
Mon.	Sept. 26	Exam #1
Wed.	Sept. 28	Magazines: <i>Asimov's</i> , <i>Analog</i> , <i>MFSF</i> , <i>Locus</i> .
Fri.	Sept. 30	Ted Chiang, "Exhalation."
Mon.	Oct. 3	Paolo Bacigalupi, "Pump Six." Larry Niven, "Inconstant Moon."
Wed.	Oct. 5	Murray Leinster, "First Contact." Karen Joy Fowler, "Face Value."
Fri.	Oct. 7	Michael Swanwick, "The Scarecrow's Boy."
Mon.	Oct. 10	Robert Silverberg, "Passengers."
		Terry Bisson, "They're Made Out of Meat."
Wed.	Oct. 12	Ted Chiang, "What's Expected of Us."
Fri.	Oct. 14	Neil Gaiman, "And Weep Like Alexander."
Mon.	Oct. 17	Corey Doctorow, <i>Little Brother</i> . Assange, Manning, Snowden.
Wed.	Oct. 19	Corey Doctorow, <i>Little Brother</i> . Computer Surveillance Issues
Fri.	Oct. 21	Nancy Kress, <i>Beggars in Spain</i> .
Mon.	Oct. 24	Nancy Kress, <i>Beggars in Spain</i> . <i>Limitless</i> .
Wed.	Oct. 26	Neil Gaiman, "Orange."
Fri.	Oct. 28	Exam #2
Mon.	Oct. 31	Kathleen Ann Goonan, "Memory Dog."
Wed.	Nov. 2	<i>Interstellar</i> : Physics and Metaphysics.
Fri.	Nov. 4	Writing vs. Revising
Mon.	Nov. 7	Stephen Hawking, Freeman Dyson, Martin Rees (BB.9-52)
Wed.	Nov. 9	Varieties of Interstellar Breakout (BB.53-166)
Fri.	Nov. 11	<i>Veterans Day – No Classes</i>
Mon.	Nov. 14	Types of Starships (BB.167-224)
Wed.	Nov. 17	Travel Scenarios (BB.225-310)
Fri.	Nov. 19	Manuscript Formatting and Submission.
Mon.	Nov. 21	Elizabeth Bear and Sarah Monette, "Boojum."
Wed.	Nov. 23	Sue Burke, "Spiders." Line editing.
Nov. 24 – 27, 2016, Thanksgiving Break – No Classes		
Mon.	Nov. 28	Student Presentations
Wed.	Nov. 30	Student Presentations
Fri.	Dec. 2	Student Presentations

Mon. Dec. 5 Student Presentations
 Wed. Dec. 7 Review and Evaluation.

Reading Day: Fri. Dec. 8

Final Exam: Wednesday December 14, 2016, 1-3pm,

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Class Meets: Monday, Wednesday, Friday at 2:00 – 2:50pm, in Steward 204.
Instructor: Dr. Richard Poss
Office: Steward Observatory 212
Email: rposs@email.arizona.edu
Telephone: 621-8630
Office Hours: 3:00 - 3:50 Monday/Wednesday, 2:00 - 2:50 Tuesday, and by appointment.

CLASS POLICIES:

CLASS PARTICIPATION: It is important to keep up with the day-to-day reading assignments, reading the selections **before** coming to class. Always bring your text to class with you. Expect occasional short quizzes or writing exercises over the day's reading assignment. Try to marshal your thoughts (favorable or unfavorable) about the material before coming to class. Then argue your point of view when class begins. **You are encouraged to get to know each other during the semester, and to study together if possible.**

ATTENDANCE: Regular attendance is **essential**. Your attendance and your participation in class discussion are important, and are taken into consideration in preparing your final grade. In addition, the exams and paper topics are all geared to class discussion. If you are not present and alert, it will not be possible to do well in this course.

GRADING: Your grade is based on the two exams, the term paper, the final exam, participation in class, and reading quizzes and writing exercises. The term project is a research paper for which you will first turn in a brief description which will be returned to you. You will be expected to make a brief presentation to the class on the results of your term project.

Exam #1	20 %
Exam #2	20 %
Final Exam	20 %
Term Project	25 %
Short Fiction	5%
Class Participation (including quizzes and writing exercises)	<u>10 %</u> 100 %

NOTIFICATION OF OBJECTIONABLE MATERIALS: This course will contain material of a mature nature, which may include explicit language, depictions of nudity, sexual situations, and/or violence. The instructor will provide advance notice when such materials will be used. Students are not automatically excused from interacting with such materials, but they are encouraged to speak with the instructor to voice concerns and to provide feedback.

UA NONDISCRIMINATION AND ANTI-HARASSMENT POLICY: The University is committed to creating and maintaining an environment free of discrimination; see <http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>. Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

INTEGRITY: Absolute academic integrity is expected of every student in all academic activities. All students are expected to be aware of and follow the *University of Arizona Code of Academic Integrity*. The *Code* prohibits all forms of academic dishonesty, including cheating, plagiarism, and fabrication. The repercussions for all of those found guilty of violating the *Code* will include loss of credit for the work (grade=0) and may include failure of the course or more extreme measures.

PLAGIARISM: Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See <http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity>.

CONDUCT: *No laptops are allowed during class.* No Ipads, tablets, texting or cell phones are allowed during class. Cell phones must be turned off when class begins. When another student is speaking to the class, please give them your attention. You are expected to treat your fellow students with dignity and respect. The use of personal electronics such as laptops, iPads, and other such mobile devices is distracting to the other students and the instructor. Their use can degrade the learning environment. Therefore, students are not permitted to use these devices during the class period.

CODE OF CONDUCT: *Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor's express written consent.* Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

STUDENTS WITH DISABILITIES:

Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit <http://drc.arizona.edu>.

EXCUSED ABSENCES: All holidays or special events observed by organized religions will be honored for those students who show affiliation with that particular religion. Absences pre-approved by the UA Dean of Students (or Dean's designee) will be honored.

The UA's policy concerning Class Attendance, Participation, and Administrative Drops is available at <http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop>

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable: <http://policy.arizona.edu/human-resources/religious-accommodation-policy>.

Absences preapproved by the UA Dean of Students (or dean's designee) will be honored. See <http://policy.arizona.edu/employmenthuman-resources/attendance>.

THREATENING BEHAVIOR: The University prohibits threatening behavior, which it defines as "Any statement, communication, conduct or gesture, including those in written form, directed toward any member of the University community that causes a reasonable apprehension of physical harm to a person or property." The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. For more information, see <http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

MISSED TESTS: The exams are already scheduled and posted on the class schedule. If you know that you will miss a test (before the test), you must make arrangements (for valid reasons) for an oral exam at a time and date *prior to* the written test. Missing one of the midsemester exams is an automatic loss of 20% of your grade. Missing the final is a loss of 20%.

GRADES: You have one week from the time an exam is returned to challenge any perceived errors. Although rare, there are occasions when grading errors occur, and you should review your returned work.

INFORMATION contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.

