

**PHYSICS 089: Physics and Science Fiction**  
Fall 2021  
**Tues/Thurs 1:00-2:15PM 102 Thaw Hall**

**Contact Information:**

Instructor: Melanie L. Good

Office Hour: Thursdays 11:00AM-12:00PM, 321 Allen Hall (Conference Room)

Virtual Office Hours: Wednesdays 8:30-9:30PM, <https://pitt.zoom.us/j/99273627245>, or by  
appointment

**Prerequisites:** MATH 0020 or any MATH greater than or equal to MATH 0031 (Min Grade 'C') or MATH PLACEMENT SCORE (61 or greater) or SAT Math (620 or greater) or ACT Math (27 or greater)

**Books:**

Highly Recommended: *The Physics and Astronomy of Science Fiction* by Steven D. Bloom

ISBN-13: 978-0-786470532

(\$29.99 on Amazon)

Recommended: *Exploring Science Through Science Fiction* by Barry Luokkala

ISBN-13: 978-1461478904

(\$29.99 on Amazon)

**COVID-19 Information:** By University policy, during the first two weeks of classes, a remote option must be made available, after which time, all classes are to be held in person. Because a remote option is required, your instructor will deliver the first two weeks of classes via zoom. As per University guidance, you are welcome to log into our zoom sessions from the physical classroom or any location of your choice. Starting on Monday, September 13, we will begin holding classes in person. However, certain safeguards against COVID-19 are also mandated. **Face masks must be worn at all times during class. You will be asked to leave if you are not wearing a well-fitting mask properly, covering your mouth and your nose.** Your professor is vaccinated against COVID-19 and will be wearing a mask, but she has small children who are too young to be vaccinated at the time of this writing, and, so she will have zero tolerance for anyone endangering her children indirectly through a lack of compliance with any of the health and safety policies of the University. Refusal to properly wear a mask or to leave the room if you refuse to properly wear a mask will result in a University Health and Safety Conduct Referral. **Class will not be conducted if anyone present refuses to properly wear a mask.**

**If you have any symptoms of COVID-19, please do not come to class.** Your absence will be excused. In the meantime, promptly contact Student Health Service (SHS) at 412-383-1800 for further advice. If you have had any exposure to someone with COVID-19, you may need to isolate. Please inform your instructor if this is the case.

If you have not been vaccinated for COVID-19, your professor urges you to please consider getting vaccinated. For further information on COVID-19, vaccinations, University policy, and to learn about any important COVID-19 updates, please visit <https://www.coronavirus.pitt.edu>. You are responsible for knowing about any updates or revisions to University policy regarding COVID-19.

Should the University change its policy regarding in-person instruction, a revised syllabus will be created and shared as promptly as possible. Most aspects of the course were designed with this contingency in mind, so it is unlikely that there will be major changes to the material or assessments. However, the method of delivery and other class policy changes may be revised, if necessary, should we be required to move away from in-person instruction.

**Course Description:** Topics to be covered include:

- Unit 1: Introductory Physics and Astronomy (Bloom Ch. 1 & 2)
- Unit 2: Traveling Through Space/Time/Dimensions (Bloom Ch. 3, 4, 5 &7)
- Unit 3: Artificial Intelligence and Technological Advances (Bloom Ch. 6 & 8 )
- Unit 4: Biological Beings and Physical Limitations (Bloom Ch. 9 & 10)
- Unit 5: Sci-Fi Evolving Into Reality (Student Presentations of Chosen Sci-Fi Works)

**Structure of Class:** This course will involve regular discussions, student presentations, and group work, including a final project. You will “adopt” a work of science fiction and give a 5-minute presentation during one of the Units (Units 2-4), as well as a 5-10 minute Final Presentation during Unit 5. You may be asked to view works of science fiction and/or read works of science fiction in preparation for class discussion. You will also be expected to contribute to Canvas Discussion Board Posts (approximately once/week), and you will take a Midterm Exam and a Final Exam. The Exams will involve questions from all works of sci-fi that have been discussed, so you should take notes during your classmates’ presentations.

**Grading Scheme:**

- 10% Canvas Discussion Board
- 20% Unit Presentation
- 20% Midterm Exam
- 20% Final Presentation
- 30% Final Exam

**Important Dates:**

- Sept. 10 Add/Drop Ends
- Oct. 29 Withdrawal Ends
- Nov. 22-26 Thanksgiving Break
- Dec. 9 Last Day of Class–Final Exam

**Tentative Schedule:**

Week	Tues	Thurs
1	Aug. 31 (U1)	Sept. 2 (U1)
2	7 (U1)	9 (U1)
3	14 (U1)	16 (U1)
4	21 (U2)	23 (U2)
5	28 (U2)	30 (U2)
6	Oct. 5 (U2)	7 (U2)
7	12 (Midterm Exam)	14 (U3)
8	19 (U3)	21 (U3)
9	26 (U3)	28 (U3)
10	Nov. 2 (U4)	4 (U4)
11	9 (U4)	11 (U4)
12	16 (U4)	18 (U4)
13	23 (Thanksgiving Break)	25 (Thanksgiving Break)
14	30 (U5)	Dec. 2 (U5)
15	7 (U5)	9 (Final Exam)

U1, U2, etc. = Unit 1, Unit 2, etc.

**Honor Code:**

Students are expected to uphold the University's standard of conduct relating to academic honesty. Students assume full responsibility for the content and integrity of the academic work they submit. Students shall be guilty of violating the honor code if they:

1. represent the work of others as their own
2. use or obtain unauthorized assistance in any academic work
3. give unauthorized assistance to other students
4. modify, without instructor approval, an examination, paper, record, or report for the purpose of obtaining additional credit
5. misrepresent the content of submitted work

Any student violating the honor code is subject to receive a failing grade for the course and will be reported to the Vice President of Academic Affairs.

**Disability Services:**

If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both the instructor and Disability Resources and Services no later than the second week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, call (412) 648-7890 to schedule an appointment. The Disability Resources and Services office is located at 140 William Pitt Union, and is open Monday-Friday from 8:30AM to 5:00PM.