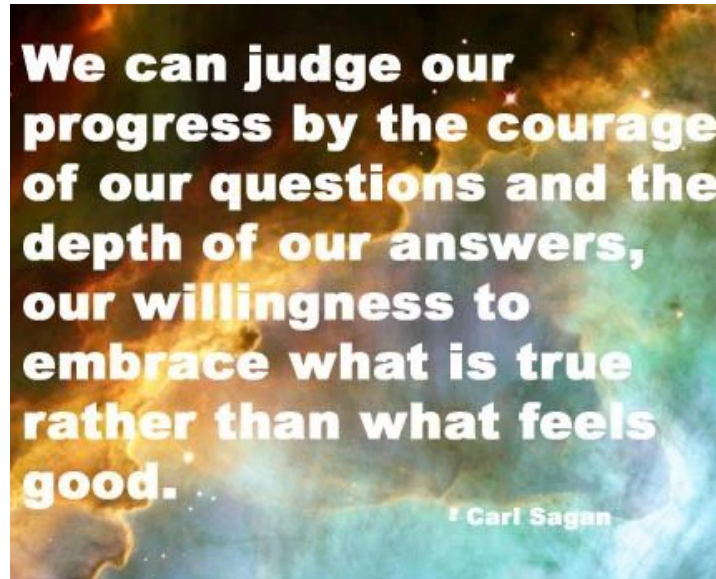


Science Fiction, Science Fact

Fall 2019 - FYS 048

Tuesdays & Thursdays 3:30-4:45

Olin 211



Professor Dan Chibnall

STEM Librarian & Assistant Professor of Librarianship

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Office Hours: Mondays 2-4, Wednesday 11-1 Fridays 10-12, & by appointment
Main Floor West Side, Cowles Library

About

First Year Seminars at Drake help integrate students into academic culture; sharpen students' writing, critical thinking, verbal communication and information literacy skills; encourage active participation by students in class; invite connections among several areas of study or disciplines; and aim to establish a sense of community among members. [Learn more here.](#)

Course Description

Science fiction storytelling often predicts scientific achievements, warns of darker scientific efforts, illuminates facts in the face of pseudoscience, and helps us navigate social problems. We will use science fiction stories and films to understand scientific principles and achievements, separate facts and falsehoods, and explore our future for scientific discoveries. We will also learn how to communicate scientific concepts more clearly, value the different

formats of public science & science journalism, and explore deeper questions about “forbidden knowledge” and the scientific method.

As this is an FYS course, we will be focusing on strengthening your skills when it comes to reading, writing, and researching. Each class period will be an opportunity for us to try working on a new skill or improving an old one.

Course Outcomes

By the end of the course, you will be able to:

- Recognize quality scientific writing and important themes within science fiction writing
- Demonstrate an ability to critically think about and make connections between ideas in past narratives or research to ideas in current research and society
- Explain how science fiction media can be a teaching tool to understand scientific concepts and other social issues
- Discover new methods of writing and presenting scientific and social concepts and issues to improve your own ways of thinking
- Analyze themes in science fiction media that help you to understand science and social issues on a deeper level rather than just a surface understanding
- Evaluate outside ideas and research to help build stronger arguments

Required Readings

- *The Martian* by Andy Weir
- All other readings, films, and TV shows that we will analyze for class will be provided through BlackBoard, on reserve at Cowles Library, or available through an online streaming service. **You are responsible for having access to a Netflix account in order to watch episodes of various sci-fi shows or films.**

Required Films & TV Shows:

Films are available on DVD at Cowles Library for checkout. Many are also available to stream on Netflix, Hulu, or Amazon, including TV episodes. Students are responsible for viewing films and shows before class. Feel free to organize group screenings with your classmates. If you want to use classroom space in Cowles Library, I’m happy to arrange it if space is available at your desired time(s). I will also try to offer a group screening of each film in the Harvey Ingham auditorium if our schedule allows for it.

Grading & Assignment Descriptions

This course uses outcomes-based grading. You begin the course with zero points and earn points through quality work throughout the semester. **All assignments should be turned in on BlackBoard unless otherwise indicated by the instructor.**

This is a **tentative** list of assignment values (see below the grading scale). The total may change slightly depending on classroom projects and your overall progress throughout the semester. **Most importantly, remember that I do not give grades. You earn your grade.** This course utilizes plus/minus grading. Please **check the BlackBoard gradebook frequently** so you know what your current grade is.

A+: 97.5-100%

A: 92.5-97.4%

A-: 90-92.4%

B+: 87.5-89.9%

B: 82.5-87.4%

B-: 80-82.4%

C+: 77.5-79.9%

C: 72.5-77.4%

C-: 70-72.4%

D+: 67.5-69.9%

D: 60-67.4%

F: 59.9% or lower

- **Journaling - Low-Stakes Writing - (10 points each)**

- Students will utilize a Google Doc to keep a journal of their reactions to readings as well as answering question prompts, identifying valuable writing techniques, and practicing their communication skills. This is a great way for me to see your progress throughout the semester and to keep the lines of communication open with you. The journal is called low-stakes writing because you can be free and informal with your writing style, practicing ideas, techniques, raising questions, and just being a place for you to get better at thinking.

- **Write-Ups - High-Stakes Writing (10-25 points each)**

- Good writing is good thinking. These are formal writing responses, comparisons, applications, and analyses of different science fiction and science media that we will read, watch, and discuss. The write-ups and research assignments are called high-stakes writing because this is the kind of writing you'll be asked to do in most of your other classes.
- Write-Ups also allow us to engage more frequently with what we read and watch and discuss. You can't fully engage with an idea, theme, or problem just by staring at it. You have to write about it. It gets your mind moving and analyzing.
- Write-Ups will focus on a variety of skills, including but not limited to:
 - Recognizing and understanding certain ideas & themes in our stories and films
 - Analyzing and applying different ideas and conflicts within narratives and scientific studies
 - Creating new ideas based on the combination of outside research and

your own critical thinking

- One key topic that we will focus on later in the semester is pseudoscience. How do we draw a line between something that is scientific and something that isn't? You'll choose a pseudoscience topic and use your critical thinking skills to analyze it and break it down.
- Staying on top of science current events is one way to keep your information literacy skills sharp. We will discuss science current events from time to time and I will ask you to pick something from the news, dissect it using tools we've learned in class, write about it, and be ready to discuss it during class.

- **Final SciFi Analysis Project - High-Stakes Writing (100 points)**

- What is the relationship between science, science fiction, and our culture and society? You'll get to explore all kinds of ways to answer this question with this project. You have the freedom to research any genre of science fiction and scientific issues with this assignment. I want you to pick something that you are excited about or fascinated by and dig deep to learn more and write about it.
- You will work on this project in stages over the course of the semester. You have some latitude in what you want to focus on (stories, movies, books, shows, graphic novels) and what kinds of theme(s) and science you want to analyze. The goal with this project will be to show that you can analyze texts for deeper meaning, connect ideas across time, and use outside sources to build a stronger argument.
- **Proposal & Draft (25 points each)**
 - These assignments are components of the final science fiction analysis project. Early in the semester you will submit your idea proposal to me and I'll give you feedback. We'll continue the feedback process with your journal & write-ups and a draft of your final project. This allows me to see how you are progressing, to give you constructive criticism, to allow you to make revisions, to allow you to improve your writing & thinking, and to keep you on track for your final project.

- **Visit the Writing Center for Writing Assistance (25 points)**

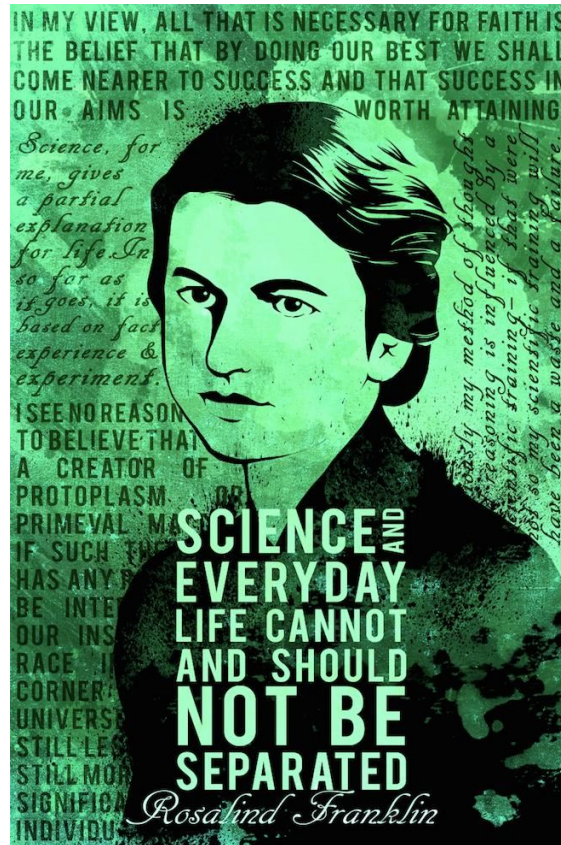
- The Writing Center is helpful for all students and it is not a sign of weakness to visit and work with someone one-on-one. [You should set up an appointment with one of their student employees](#) and work with them on one of your Write-Up or Research assignments (high-stakes writing). Simply by visiting and working with one of their tutors will earn you the points indicated here.

- **Conversation with Dan (10 points)**

- I will ask you to sign up for a time, either one-on-one, or with one or two other students from class, to come and meet me in the library to have a conversation about our course, college in general, and just getting to know you.

- **Cultural Events (10 points)**

- Drake offers a variety of amazing opportunities to learn outside the classroom. You will attend an event during the fall semester and turn in a brief write-up of your experience, what you learned, and how that new knowledge might change the way you think or approach your life at Drake and beyond.



Classroom Expectations

We meet for 75 minutes each class period, twice a week and in that time I want you to be engaged listeners and active participants in the class. Sure, I'll talk a little, give examples, but I like to ask questions often to get your minds moving. I'm also a firm believer in active learning, which means that every class will involve some kind of micro-project or group-based investigation. We learn more when we are experimenting and acting rather than just listening all the time.

Remember that when you are in the classroom, you can safely discuss controversial topics, think in a critical way, and challenge yourself and others. We want to engage lots of perspectives and begin the vital task of changing the way we think. **Good learning starts by unlearning previous ways of thinking.** Also, if you feel anxious about speaking during class or you are unsure if your contributions to the class discussions are worthwhile, remember this: **the only way to find out is to try.** So I encourage you to raise your hand and toss your idea into the discussion.

I want you to use your technology during class, be it laptop, tablet, or smartphone. Just remember that you are expected to be a responsible learner, which means that you should stay focused on class-related topics when using your technology. Most importantly, do not distract your classmates with your technology. We are here to learn, not to be distracted. **This is one of the most important skills you can develop in college: learning to focus and stay on task when**

you need to.

I will also provide you with a copy of our course contract which spells out how we will respect each other over the course of the semester so that we are always learning and not being distracted.

Course Policies

You are responsible for your learning and progress in the course. This includes committing to being an active participant in the class, knowing when assignments are due, turning work in on time, and asking for help when you need it. It will take different students different amounts of time to successfully complete the reading and assignments. Plan accordingly. Do not let your work snowball out of control.

Email & BlackBoard

I will mainly use the BlackBoard announcement tool to inform you of any changes that may take place or reminders about upcoming classes and assignments. Make sure to check your email and BlackBoard frequently to stay on top of your studies. One of the best skills you can develop in your first semester is staying on top of communications.

Office Hours

Office hours should be utilized for conversations about ideas from class, problems with research, or other, deeper, critical thinking conversations. If you believe your question can be answered by checking the syllabus, calendar, or BlackBoard, make sure to check those first. I welcome all students to drop by my office as I have my door open most of the time, but please remember I have many responsibilities and courses so I may not always be available. Feel free to drop by on **Mondays from 2-4pm, Wednesdays from 11-1, and Fridays from 10-12** unless I otherwise tell you about a conflict that week during class. **I will also let you know every class period if I have extra office hours for that week.** My office is Cowles Library 137 on the main floor west side. Feel free to contact me to make an appointment at another time if you need to as well. Most importantly: don't feel nervous about coming to see me. I'm here to help guide you, not to judge you.

Attendance & Missing Class

If you are going to miss class, please try to email me to let me know before class. You are responsible for what you miss during class, and in-class work will not always be available to make up. You'll need to contact someone in the class to get notes and any information you missed. I strongly suggest you let someone in the class know you can't come to class and ask that person to gather information for you. Attendance is important for us to have a lively, multi-perspective discussion. **You are allowed 3 unexcused absences. After those 3 you will lose 5% off of your final grade for every unexcused absence. An excused absence must be accompanied by a note from a coach, professor, family member, or doctor.**

Late Work

All work must be turned in on time, which is the beginning of the class that it is due. Each day that an assignment is late loses 20%. However, I understand that we all lead busy lives and the

first semester of college can be tough so please do not hesitate to reach out to me and tell me that you're stuck or confused or frustrated by your writing. I will work with you and help you plan what to do next so you can finish the work and get better along the way. **If you reach out to me in this way, continue working hard to get your assignment in, and stay in touch with me, I will not charge a late penalty.**

Also, **please contact me for extensions or alternative due dates** if needed. I will not always be able to give you an extension or alternative due date, but I will consider it based on your particular situation. Assignments must be turned in via BlackBoard. BlackBoard is the preferred method as that is how I can give you the quickest feedback on an assignment. Assignments should not be emailed, faxed, etc. unless special circumstances occur.

Revising

If you want to put in extra time and work to improve a graded assignment, **you may make revisions based on my feedback and resubmit for a higher grade.** You may only do this once per assignment. This does not count for any in-class assignments or journal entries, **only high-stakes writing assignments.** You must do this **within 48 hours of my commenting/grading** via BlackBoard.

Academic Integrity

Plagiarism, including self-plagiarism, is a serious offense and will not be tolerated. Assignments found to be partially or fully plagiarized will not receive credit and must be reported to the university administration. Students are responsible for knowing and abiding by university policies on plagiarism and academic integrity.

Disability Accommodations

If you have a disability and *may* require academic accommodations in this course, even if you don't anticipate using them, please arrange them during the first week of class.

Accommodations must be coordinated through Student Disability Services. Please contact Michelle Laughlin, Director of Student Disability Services, at (515) 271-1835 or michelle.laughlin@drake.edu as soon as possible.

Title IX Resources - Reporting of Conduct

The University has resources available for students who have experienced sexual or interpersonal misconduct, which can include sexual harassment, sexual assault, dating violence, and stalking, for example. Some resources are legally confidential, which means personal information will not be shared with anyone else. Other non-confidential (yet still private) resources can explain how to locate support resources, file a complaint within the university, or file criminal charges – these non-confidential resources need to share incidents of sexual and interpersonal misconduct with the Title IX Coordinator.

As an instructor, I am non-confidential; however, please know that sharing with the university does not mean the individual must participate in a formal university or criminal process; an individual could request confidentiality through the University, for example. Other services the university can provide include safety planning, counseling, disability or immigration services

and assistance in academic and housing accommodations as needed.

University contacts:

- Resources and reporting options [can be found on the Title IX webpage at www.drake.edu/titleix](http://www.drake.edu/titleix).
- Violence Intervention Partner (V.I.P.) provides peer-based 24/7 confidential support and advocacy services. To access a V.I.P. advocate call or text 515-512-2972.
- Katie Overberg, Title IX Coordinator: 271-2982 or titleix@drake.edu

Writing Workshop

The Writing Workshop can help you with: evaluating your habits of reading and writing; learning new strategies appropriate for a particular writing or reading task; making sense of assignments and assigned reading material; coming up with ideas; revising sentence style; resolving problems with word choice, grammar, etc.; revising organization, argument, viewpoint or perspective; and overcoming writer's block. You may visit a tutor by appointment or establish a time to meet a tutor on a regular basis. [Feel free to schedule an appointment by clicking here](#). You will be required to visit the Writing Workshop at least once during the semester.

Course Calendar

I reserve the right to make changes and add/subtract material to the course calendar based on various determinations during the semester. I encourage you to [bookmark the Drake academic calendar as well](#) so you know the important dates for all of your academic needs.

Week	<u>Date & Topic/Skills</u>	<u>Read/Watch Before Class</u>	<u>Assignments Due by Start of Class</u>
1	8/27 What is Science? What is Scifi?		
	8/29 College & FYS: What are we doing here?	Asimov "The Feeling of Power" Shelley Intro to "Frankenstein"	Journal #1: Responding to Authors
2	9/3 Predicting, Inspiring, Warning	Butler "The Evening and the Morning and the Night" Marshall "Destroy the City with Me Tonight"	Write-Up #1: Recognizing Themes & Ideas
	9/5 Casual & Critical Thinking	Kolbert "The Big Kill"	Journal #2: Early Research Interests & Questions
3	9/10 Information in College: Where Is It? What do I do with it?	The Martian 1-64 (Ch. 1-6) Heinlein "On the Writing of Speculative Fiction"	
	9/12	X-Files Episodes	Write-Up #2

	Taking Notes, Thinking About Content v. Skills		
4	9/17 Good Writing is Good Thinking	The Martian 65-131(Ch. 7-11) Asimov "The Last Question"	Journal #3: Project Proposal
	9/19 Movie Discussion #1	Movie #1	Write-Up #3: Movie #1
5	9/24 Building Arguments	The Martian 132-191(Ch. 12-15)	
	9/26 Information Ecosystems	Black Mirror Episodes	Write-Up #4:
6	10/1 The Scientific Method & Everyday Life	The Martian 192-256 (Ch. 16-19)	Journal #4: Project Progress
	10/3 Dan at Professional Conference		
7	10/8 Diversity in Science Fiction	The Martian 257-310 (Ch. 20-23)	
	10/10 The Dark Side of Science	Tiptree Jr. "The Screwfly Solution"	Write-Up #5:
8	10/15 Fall Break		
	10/17 Logical Fallacies: Defeat Them!	The Martian 311-369 (Ch. 24-end)	Journal #5: The Martian
9	10/22 Women & Men in Science Fiction	Kowal "The Lady Astronaut of Mars"	
	10/24 Movie Discussion #2	Movie #2	Write-Up #6: Movie #2
10	10/29 Open Discussion Day		Journal #6: Open Discussion
	10/31 Pseudoscience: Recognizing Junk & Defending Real Science	Bad Studies & Websites	
11	11/5 Hope, Progress, & Science Fiction	Star Trek: The Next Generation Episodes	
	11/7 Public Science & Engaged Citizenship		Write-Up #7: Pseudoscience

12	11/12 Current Science	Bring your own science news article to class	Journal #7: Current Events
	11/14 Communicating Science: Creating Our Own SciFi	Best Science & Nature Essays: Your Choice	Draft
13	11/19 Redefining the Genre: Science Fiction, Speculative Fiction, Fantasy, & Adventure	Eagleman "Sum" Singh "The Woman Who Thought She Was a Planet"	
	11/21 Movie Discussion #3	Movie #3	Write-Up #8: Movie #3
14	11/26 Where do science & science fiction go from here?	Xkcd Comics & What If? Comics	
	11/28 Thanksgiving		
15	12/4 Final Project Discussions		
	12/6 Science Fiction Party		Final Project