



The University of Suwon

The Science of Sci-Fi

Spring 2021 - Brett Clark

Office Location: International College
Email: brett.suwon@gmail.com
Office Hours: TBA
Course Format: Lecture / Online Blended, Multimedia

Course introduction

A course that explores scientific and technologic concepts by comparing and contrasting their presentation in films and television versus reality.

Course Topics

Physics: time travel, space travel, artificial intelligence

Biology: genetic engineering, cloning, alien life, epidemics and outbreaks

Geology: global warming, volcanic activity, extreme weather events

This class will be conducted in a hybrid online/offline format. **One hour in class and two hours online** per week.

Course objectives

The goal of this course is to increase students' comprehension of the selected scientific and technological concepts as well as their general scientific literacy. An increased level of scientific literacy will better enable students to make decisions and form opinions regarding political issues involving science (global warming, genetic engineering, cloning, etc.) as well as help protect themselves against products and services with weak or dubious claims of scientific evidence (miracle cures, etc).

In other words, our goals are to:

- increase general science literacy
- highlight differences between science in fiction and reality
- consider how government policy and new technologies will interact
- enable students to identify and differentiate pseudoscience

Course language

This course is taught completely in English. Students will need to have a good level of English to read and understand the contents and to complete the assignments.

Course guidelines, requirements and expectations

All students must;

- use the required text/material and download or prepare any other materials required by the teacher
- act respectfully and courteously in class at all times
- place all handphones on **silent** and **do not use them** unless asked to by the teacher.
- be on time and be prepared
- attend and participate actively in all classes.
- complete all required readings, assignments and exams

Required texts/materials

No textbook is required for this class, although online readings may be assigned

Course website

<http://ic.suwon.ac.kr/>

Course policies

To complete a course, students must attend at least 75% of classes. That is, if students miss a course **more than four times**, they will fail the course.

Absences:

- There are NO excused absences

Lateness:

- 3 times late = 1 absence.
- Students who arrive late should tell the teacher if attendance has already been taken.

Assessment:

- Assessment will be by class participation, presentations, exams and written essays.
- Cheating is not tolerated and will result in an automatic F.

Grading:

- quizzes (10): 20%
- essays (4): 40%
- attendance / attitude / participation: 25%
- midterm exam: 7.5%
- final exam: 7.5%

NOTE: The course will be graded on a curve (relative grading).

Spring 2019: The Science of Sci-Fi Class Schedule

| Date | Topic |
|---------|--|
| Week 1 | Introduction and Class Format |
| Week 2 | The scientific method |
| Week 3 | Cosmology, space travel, relativity |
| Week 4 | Time travel, time paradoxes |
| Week 5 | Cloning, genetic engineering |
| Week 6 | Essay 1 workshop |
| Week 7 | Midterm exam |
| Week 8 | Artificial intelligence, nonhuman rights |
| Week 9 | Extraterrestrial life |
| Week 10 | Essay 2 workshop |
| Week 11 | Climate change, geology |
| Week 12 | Extreme weather |
| Week 13 | Epidemics and outbreaks |
| Week 14 | Human extinction, social collapse |
| Week 15 | Final exam |
| Week 16 | Make-up Week |