



The University of Suwon

The Science of Sci-Fi

Fall 2019 - Brett Clark

Office Location: International College
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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