

Syllabus (2022-Summer)

Course Title	Science and Fiction	Course No.	11155
Credit	3 credits	Hours	45 Hours
Class Time Classroom	9AM–11:30AM Mon to Thr Classroom TBA		
Instructor	Name Ahjeong Son	Department Environmental Engineering	
	E-mail ason@ewha.ac.kr	Phone +82 3277 3602	
Office Hours Office Location	Office hours TBA (Please email for the appointment) ECC #B335		

I. Course Overview

1. Course Description

This class is intended to identify scientific facts in your daily life and understand the underlying fundamentals in various science and engineering fields. It is also intended to identify pseudoscience in movies and media and learn the actual science of it. Students are encouraged to remain interested toward science and engineering via simple, interesting, and beneficial stories in daily life and movies.

2. Prerequisites

None

3. Course Format

Lecture	Discussion/Presentation	Experiment/Practicum	Field Study	Other
90%	10%	%	%	%

4. Course Objectives

- Identify scientific facts in your daily life and understand the underlying fundamentals in various science and engineering fields
- Identify pseudoscience in movies and media and learn the actual science of it
- Encourage students to have the interest toward science and engineering via simple, interesting, and beneficial stories in daily life and movies.

5. Evaluation Systems

Relative evaluation Absolute evaluation (for Ewha International Summer College students only) Others

Midterm Exam	Final Exam	Quizzes	Presentation	Projects	Assignments	Participation	Others
45%	45%	%	%	%	%	10%	%

II. Course Materials and Additional Readings

1. Required Materials

Lecture notes will be given ahead of the class as a form of PDF. Both midterm and final exams will be held offline. The classroom and time will be announced

2. Supplementary Materials

None

3. Optional Additional Readings

None

III. Course Schedule

Day	Date	Topics & Class Materials, Assignments	
Day 1	(6/30)	Part I. Science or Fiction in the Daily Life	Introduction to class; Chap 1. Environment and Pollution Chap 1.1. Water and Environmental Engineering
Day 2	(7/4)		Chap 1. Environment and Pollution Chap 1.2. Environmental Hormones I, II
Day 3	(7/5)		Chap 2. Diet and Biochemistry Chap 2.1. Fatty acids and biochemistry; Chap 2.2. Diet and hormone biochemistry
Day 4	(7/6)		Chap 3. Food and Health (Artificial food chemicals I)
Day 5	(7/7)		Chap 3. Food and Health (Artificial food chemicals II); Chap 4. Esthetics and Plastic Surgery (Chap 4.1. Perm hair chemistry)
Day 6	(7/11)		Chap 4. Esthetics and Plastic Surgery Chap 4.2. Cosmetic dermatology; Chap 4.3. Laser treatment and optics
Day 7	(7/12)		Chap 5. Microbiology and Public Health Chap 5.1. Microbiology and Infectious disease; Chap 5.2. Mask and gender innovation; Chap 5.3. Extreme microbiology
Day 8	(7/13)		
Day 9	(7/14)	Part II. Science or Fiction in the Movies	Chap 6. Science or Fiction in Sci-Fi Movies Chap 6.1. Genetics and Mutations; Watching movie of "Jurassic world"
Day 10	(7/18)		Chap 6.2. Gravity in fiction; Watching movies of "Elysium" and "Gravity"
Day 11	(7/19)		Chap 6.3. Robots and artificial intelligence; Watching movie of "Her"
Day 12	(7/20)		Chap 7. Science or Fiction in Hero Movies Chap 7.1. Nanotechnology in Hero Movies

Day	Date	Topics & Class Materials, Assignments	
Day 13	(7/21)		Chap 7.2. New Material Synthesis and Physics; Watching movie of “ Iron Man 2 ”
Day 14	(7/25)		Chap 8. Science or Fiction in Disaster Movies Chap 8.1. Climate change in disaster; Watching movie of “ Kingsman ”
Day 15	(7/26)		Chap 8.2. The great global warming swindle; Final exam
Makeup Classes 1	(mm/dd)		None
Makeup Classes 2	(mm/dd)		None

IV. Special Accommodations

* According to the University regulation section #57-3, students with disabilities can request for special accommodations related to attendance, lectures, assignments, or tests by contacting the course professor at the beginning of semester. Based on the nature of the students' request, students can receive support for such accommodations from the course professor or from the Support Center for Students with Disabilities (SCSD). Please refer to the below examples of the types of support available in the lectures, assignments, and evaluations.

Lecture	Assignments	Evaluation
<ul style="list-style-type: none"> . Visual impairment: braille, enlarged reading materials . Hearing impairment: note-taking assistant . Physical impairment : access to classroom, note-taking assistant 	Extra days for submission, alternative assignments	<ul style="list-style-type: none"> . Visual impairment: braille examination paper, examination with voice support, longer examination hours, note-taking assistant . Hearing impairment: written examination instead of oral examination . Physical impairment: longer examination hours, note-taking assistant

-Actual support may vary depending on the course.

* The contents of this syllabus are not final—they may be updated.