

# THE MOVIEGOER'S GUIDE TO THE FUTURE

Fall 2024

Tuesday 4:30 — 7:15 PM

Room: Coor L1-20

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Office Hours: please email for appointment

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## OVERVIEW

The Moviegoer's Guide to The Future is a unique introduction to cutting edge of emerging technologies and their socially responsible and ethical development and use. Whether your background is in science, engineering, the social sciences, the humanities, business, design, film, the arts, or pretty much any other area, this class will help you better-understand how your particular skills, knowledge and interests can help ensure the socially responsible development and use of cutting edge science and technology. And yes, we get to watch all twelve movies in class!

Using movies like *Jurassic Park*, *Ghost in the Shell*, and *Transcendence*, the course explores technologies that span genetic engineering and "de-extinction", to human enhancement, nanotechnology, and artificial intelligence. It also looks at the human side of technology innovation, from the ethics of cloning in movies like *Never Let Me Go*, and predictive justice in *Minority Report*, to the dangers of blind entrepreneurial ambition in movies like *Ex Machina*. And it addresses some of the really big issues in science and society that we're facing today, such as climate change (with *The Day After Tomorrow*), and science and belief (through Carl Sagan's *Contact*).

Through these and other movies, we'll dive into the increasing complex relationship between science, technology and society, and begin to unpack how, through understanding this relationship better, we can help build a better, more responsible, science and technology-based future. Definitely not a course to miss if you're into science, technology and sci-fi, and want to make the world a better place!

## MOVIES WE'LL BE WATCHING

*Jurassic Park* (1993) • *Never Let Me Go* (2010) • *Minority Report* (2002) • *Limitless* (2011) • *Elysium* (2013) • *Ghost in the Shell* (1995) • *Ex Machina* (2014) • *Transcendence* (2014) • *The Man in the White Suit* (1951) • *Inferno* (2016) • *The Day After Tomorrow* (2004) • *Contact* (1997)

## REQUIRED READING

Andrew Maynard (2018) *Films from the Future: The Technology and Morality of Sci-Fi Movies* (Mango Publishing). ISBN 978-1633539075 (PDF also available from the instructor – please email for details)



# WHAT YOU'LL LEARN IN THIS CLASS

## KEY IDEAS AND CONCEPTS

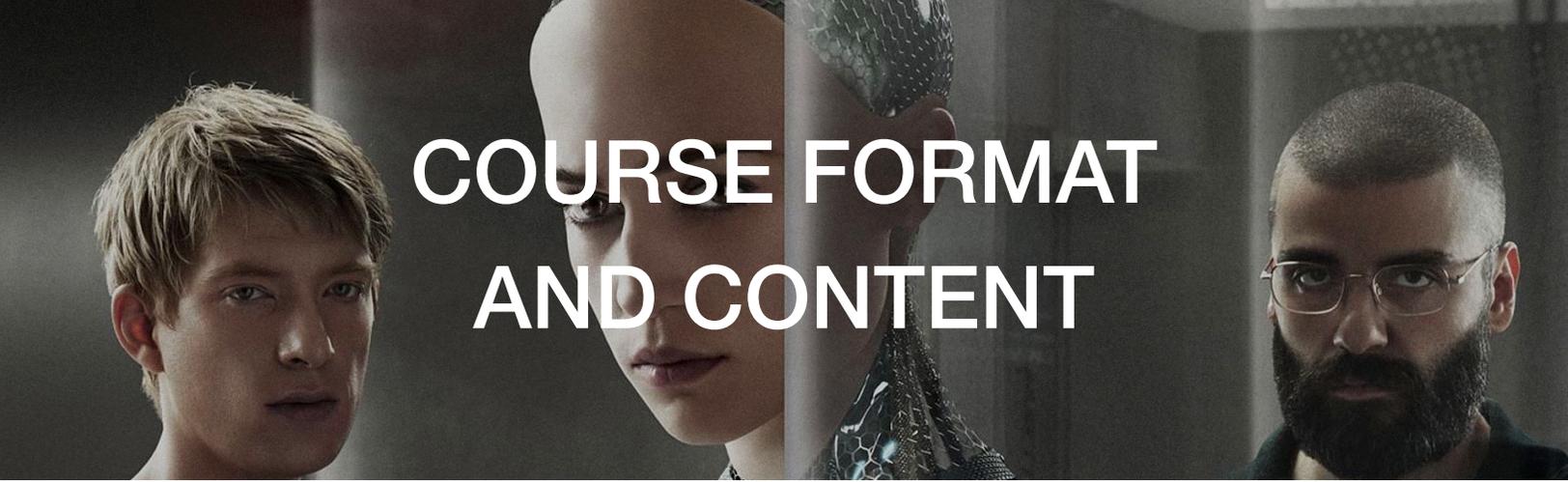
We cover a lot of ideas and concepts in this class, including:

- Current trends in emerging and converging science and technology.
- The process and nature of scientific discovery and technology innovation.
- The complex relationships between science, technology, and society.
- Socially responsible and responsive innovation.
- The ethics of research and innovation.
- Social justice, equity, rights, and privilege.
- Power, influence, and innovation.
- The nature of science and belief.
- What it means to be human in a technologically complex age.

## COURSE OUTCOMES

Following this class, you will be able to:

- C01: Use active viewing skills to gain insights on real-world science and technology-related challenges and opportunities from movies.
- C02: Discuss how science fiction movies can provide insights into the potential benefits and risks of new and emerging technologies.
- C03: Discuss a number of emerging trends in science and technology and the opportunities and challenges they present.
- C04: Describe the key ideas and challenges associated with responsible innovation.
- C05: Discuss why inclusive and transdisciplinary approaches are needed for successful and responsible technology innovation.
- C06: Formulate, communicate, and defend well-informed views of your own on the development of beneficial, ethical, and socially responsible science and technology.



# COURSE FORMAT AND CONTENT

## CANVAS

You will be using Canvas for all aspects of this course. The course is split into modules to guide you through readings, discussions, classes and more. Please familiarize yourself with the Canvas modules, and work through the introductory module (Module 0), before classes begin.

## COURSE TEXT BOOK

You will need to obtain a copy of the book *Films from the Future The Technology and Morality of Sci-Fi Movies* before the class begins. You'll be reading chapters in preparation for many of the course classes, and there will be graded assignments based on the book. The good news is that this is not your typical text book. *Films from the Future* is a popular science and technology book that was written to be easy and enjoyable to read, while making you think!

You're encouraged to use either the hard back version of the book, or the ebook version (which is available in several formats). It's also OK to use the audiobook version, although it's not recommended as it's much harder to make notes from an audiobook.

If you have any difficulties getting hold a copy of the text, please let your course instructor know as soon as possible – a PDF version is available.

## MOVIE WATCHING

Yes, we watch whole movies, from start to end, in this course! We do this intentionally, as there are things you can learn and insights you can get from watching complete movies that you can't get from watching short snippets, or simply reading about them. But this does mean that you need to watch these movies using a specific approach if you are going to succeed in the class.

The approach we use is called *active viewing*, and there are guidelines for this further down in the syllabus. Essentially, you will prepare for what you will be looking out for before each movie, and you will watch while actively paying attention to how the movie provides new insights and connects with new ideas.

## PRE-MOVIE ASSIGNMENTS

Before class each week you will have two assignments: 1) Read the relevant textbook chapter and highlight key sentences that stand out to you; and 2) a pre-movie assignment that will orient you to the movie and what to look out for while watching it.

## JOURNAL

After each movie you will be required to complete a journal entry that reflects your thoughts and ideas based on the pre-movie assignments, watching and discussing the movie in class, and your own thinking and research.

## BIGGER PICTURE ASSIGNMENTS AND SELF-ASSESSMENT

In addition to the weekly pre- and post-class work, class attendance, there are four “bigger picture” assignments spaced throughout the course (including a final self-assessment) where you will be asked to write about and reflect on broader themes that are touched on in class around emerging technologies and socially responsible innovation.

## DISCUSSION BOARD

There is no requirement to contribute to discussions on Canvas in this class, but you are encouraged to use the discussion board for everything from introducing yourself, talking about the course, discussing topics that interest you, sharing stuff that may be of interest to others, and asking other participants and the instructor for help or advice.

## A TYPICAL WEEK

**Weekly reading** (~2 hours per week) Before each class, you'll be required to read a specified chapter from the class text (*Films from the Future*) that sets the scene for the week. This will introduce the movie you'll be watching (in most weeks), provide a background to key areas of science and technology touched on in the movie, and explore some of the key themes around science, technology and society that the movie raises. **It's important you do the reading ahead of the class. It's also OK if you read the whole book before we get to the relevant classes!**

**Five Most Important Sentences** (~1 hour per week) Following the reading, you'll be required to complete a pre-movie exercise that asks you to highlight five sentences from the readings that stand out to as being of interest/relevance, and to write 1 – 2 sentences on why you chose each sentence.

**Pre-movie 1-2-3** (~1 hour per week) Before each class, you'll complete a graded exercise where you are asked to identify **one** question you had from the reading, **two** things that you learned about science, technology and society from the reading, and **three** ideas or topics you'll be looking out for while watching the week's movie that are inspired by the reading.

**In-class movies** (~3 hours per week) Most week's we'll watch a sci-fi movie together, and discuss it as a class. You'll be engaging in "active watching" (see below) where you'll be actively exploring how each movie in the class provides insights into the concepts, ideas and issues you identified in your pre-reflection. We'll have a short introduction to the movie at the start of the class, and at the end of each movie we'll discuss as a class specific insights that we can take away from it.

**Journal** (~1 hours per week) At the end of each week you will be asked to complete a journal that reflects your thoughts and ideas based on the pre-movie assignments, watching and discussing the movie in class, and your own thinking and research. This is expected to be authentic and "in the moment" — no polished prose or second-guessing what the instructor wants, just your honest thoughts and reflections. **And absolutely no generative AI!**

**Bigger picture assignments** (~1 hour per week on average) In modules 4, 8, 11, and 14, you'll have assignment that help you develop and articulate your ideas around specific overarching topics that are relevant to the course. These will take on a variety of formats. The last of these assignments will be a self-assessment of what you've learned through the course in relation to the class' learning objectives.



# GRADED TASKS AND ASSIGNMENTS

Your final grade in this class will depend on the following tasks and assignments (see the next section for the grade structure):

## ORIENTATION (NOT GRADED, BUT REQUIRED)

At the start of the course, you will need to complete a number of short assignments that will help orient you to the course and ensure you are prepared what's to come! These are not graded, but you do need to complete them in order to progress on to the course modules.

## FIVE MOST IMPORTANT SENTENCES

Each week before class and following the reading, you'll be asked to identify five sentences from the reading that stand out to as being of interest/relevance. You'll also be asked to provide one of two sentences describing why to chose each sentence from the book. These can be very informal and reflective — we just want to see that there's some thought been put into your selection of the sentences.

**Points will be subtracted where there is little evidence that you have read the book chapter or given much thought to your responses.**

## PRE-MOVIE 1-2-3

Each week before class, you'll be required to complete a pre-movie assignment where you'll be asked to identify:

1. **One** question you had from the reading.
2. **Two** things that you learned from the reading. And
3. **Three** ideas or topics you'll be focusing on while watching the week's movie that are inspired by the reading.

**You may not be graded on this assignment if you miss the posting deadline.**

Your responses are intended to guide your active watching of the movie and your participation in class discussions. **It is essential that you read the relevant book chapter carefully before completing the assignment.**

You will be graded on completing the ideas-organizer with thoughtful responses. **Points will be subtracted where there is little evidence that you have read the book chapter or given much thought to your responses.**

## CLASS PARTICIPATION

Part of your grade will depend on you attending class and actively watching the movie with the rest of the class. Each week, a sign-in sheet will be circulated in class, **and points will be deducted for absences where permission hasn't been given ahead of time** (unless it's an emergency of course!)

**Please make sure you sign the sheet each week, and ask if it hasn't reached you or you missed it!**

If you need to miss a class, **please ask permission before the day of the class.**

**In-class engagement:** You are strongly encouraged to engage in discussions in class. You will not be penalized if you don't engage in the discussion — and we recognize that, for some of you, active participation is not something you are comfortable with in a large class (and that's OK). However, the class will be a lot more fun if you are able to jump in with your own ideas and thoughts!

**And to be very clear — this class is intended to be a safe space where no question is considered to be a dumb question, where we can explore topics that are contentious with humility and respect for other people's opinions, and where everyone is treated with kindness and civility.**

## JOURNAL

After each movie you will be asked to complete a journal entry that reflects your thoughts and ideas based on the pre-movie assignments, watching and discussing the movie in class, and your own thinking and research.

This should be short, reflect your own thinking and ideas, be authentic, and be honest. You will *not* be graded on your mastery of English and grammar, but you *will* be graded on how thoughtful and honest you are in your journal entry.

You are free to use AI tools to develop and formulate your thoughts, **but please do not use AI to write your journal entry.**

## BIGGER PICTURE ASSIGNMENTS (PLEASE SEE CANVAS FOR FINAL INSTRUCTIONS)

Through the semester, you will be asked to complete **three** written assignments that allow you to dig deeper into some of the overarching themes of the course. For each assignment, you will be graded on the clarity with which you express your thoughts and ideas, as well as the learning you demonstrate through these. These will be due in modules 4, 8, and 11.

You are free to use AI tools to develop and formulate your thoughts and to help support your effective use of language and grammar, **but please do not use AI to write your submitted assignment for you.** (Points will be subtracted or removed altogether if your assignment does not appropriately reflect your own thinking and ideas).

Assignments will be posted on Canvas

## SELF-ASSESSMENT

At the end of the course, you will be required to submit a ~500 word self-assessment that reflects what you have learned or what you will take away from the class, and the extent to which you have made progress toward each of the class' course outcomes. This should draw from your previous assignments, as well as any other sources (including personal experience, or achievements in other classes). It should articulate what you feel you have learned, and illustrate the degree to which you can demonstrate your learning and abilities against each learning objective.

Your self-assessment can be informal. It should certainly be authentic. Your aim should be to show the course instructor what you have learned, so that they can rapidly assess your progress.

**Your self-assessment will be graded based on the extent to which it indicates what you have learned and illustrates progress toward each of the course learning objectives.** Evidence of substantial learning will be graded an A (or A+ if evidence of progress is exceptional). Limited evidence that you learned anything substantive from the class will result in a self-assessment grade of B or lower.

You are strongly advised to start collecting material and evidence for your self assessment early in the course.

**And a quick note on serendipity:** While the class has clear learning objectives and the instructor has a clear plan, some of the most interesting and useful things you might take away from the class are those that are unexpected. Please do feel free to include any of these in your self-assessment!



## GRADING

Your overall course grade will be determined based on the weightings below:

Five Sentences	10%
Pre-Movie 1-2-3	10%
Participation in Class	10%
Journal	20%
Bigger Picture assignment 1	10%
Bigger Picture assignment 2	20%
Bigger Picture assignment 3	10%
Self Assessment	10%

Barrett students interested in adding an honors contract to the class should contact the instructor in the first week of classes.

## GRADING SCHEME

A-/A/A+	90.0-92.9/93.0-97.9/98.0-100	Excellent
B-/B/B+	80.0-82.9/83-87.9/88.0-89.9	Good
C/C+	70.0-76.9/77.0-79.9	Average
D	60.0-69.9	Passing
E	<60	Failure
XE		Failure due to Academic Dishonesty

[Note: in order to receive University Distribution requirement credit you must earn at least a "C."]

## INCOMPLETES

A mark of "I" (incomplete) can be given by the instructor when you are otherwise doing acceptable work but are unable to complete the course because of illness or other conditions beyond your control. If you request an "I", you are required to agree with the instructor what you need to do to complete the course requirements. The arrangement must be recorded using the form at <http://students.asu.edu/forms/incomplete-grade-request>. Students should be proactive and discuss this with their instructor and TA before the end of the semester. Students who do not complete this form

before the end of the semester cannot be given an incomplete and will be awarded a grade based on the work they have completed.

## LATE ASSIGNMENTS

If prior permission is sought (and granted) for submitting an assignment after the deadline, or if there are circumstances outside your control for a delay, there will be no grade penalty. Otherwise, assignments submitted after the set deadline may not be graded.

## GRADE APPEALS

ASU has formal and informal channels to appeal a grade. If you wish to appeal any grading decisions, please see: <http://catalog.asu.edu/appeal>



# ACTIVE VIEWING

Sometimes (let's be honest, most times) it's great to sit down and let a movie wash over you — to experience it without thinking too much.

**This is not how we'll be watching movies in this class.** But don't worry — most of the movies we'll be watching together are even better when you're concentrating on what they're saying, and what insights we might get from them.

We'll be using an approach called *active viewing*. This involves paying close attention and taking notes while watching the movies. But to help you, here are some simple guidelines:

**Come prepared.** Make sure you are primed before each movie, by having read the week's chapter and completed the Pre-Movie 1-2-3 assignment.

**Pay attention.** Every aspect of a movie — from the music, to the atmosphere, to the subtle expressions and body language of actors — can convey information, and spark new ideas. Pay attention to everything!

**Focus.** Before each movie, you should have identified three ideas or topics in your pre-reflection. Actively look for anything in the movie that is relevant to these, and that stimulates interesting and new insights into them.

**Be inspired.** Embrace the serendipity of new and novel ideas and insights that you weren't expecting.

**Make connections.** Look for common threads between different movies. These might be similar ideas, or different perspectives on the same idea. But they could also be as simple as the same actor, or producer, or composer, being associated with different movies, or similar settings or locations, or narrative arcs. Be imaginative in the connections you make!

**Listen to more than the words.** The soundscape (including the music) of a movie carries with it an amazing amount of information, and can change how you perceive the movie!

**Be critical — but don't get lost in your critique.** Be critical of the movie — challenge its assumptions, its plausibility, its use or misuse of reality and fiction, its story telling. But don't let these spoil your enjoyment — “bad” movies can still inspire great ideas!

**Make notes.** Don't assume you'll remember any of those great ideas that struck you in the middle of a scene, if you didn't write them down.

**Enjoy the movie.** Active viewing should never mean boring viewing!

A photograph of three people sitting on a grassy dune. On the left, a woman with dark hair in a braid, wearing a light green jacket and purple pants, sits looking towards the right. In the center, a woman with short blonde hair, wearing a tan trench coat and a grey skirt, sits with her hands clasped. On the right, a man with short dark hair, wearing a dark brown jacket and tan pants, sits looking towards the camera. The background consists of tall, dry grasses on a sandy dune under a grey, overcast sky. The text 'IMPORTANT DATES' is overlaid in large, white, sans-serif capital letters in the center of the image.

# IMPORTANT DATES

Please refer to Canvas



# SCHEDULE

## MODULE 0: ORIENTATION

Before classes begin, you'll be required to complete an orientation module on Canvas. This will include completing a course introduction, learning about active viewing, reviewing the course syllabus and schedule, and indicating your readiness for classes.

**You will not be able to open subsequent modules until you have completed Module 0**

### ASSIGNMENTS

Getting Started Tasks

## MODULE 1: INTRODUCTION AND OVERVIEW

### CLASS

August 27, 2024

### PRE-CLASS ASSIGNMENTS

Read chapter 1 of *Films from the Future*.  
Five Most Important Sentences assignment

### THEMES

We'll go over the course expectations, goals, objectives and format. We'll preview what's in store for the course, and dig into how emerging complex and powerful technologies might potentially affect up the future. We'll set the scene for exploring the intersection between science, innovation, society, human values, expectations and aspirations, through movies. We'll discuss the relevance of movies as an expression of imagination and creativity, together with the aesthetic experience they represent, as a way to gain insights into potential futures. We'll have an introduction to active viewing. And we'll talk about science and how it's portrayed in science fiction movies.

### POST-CLASS ASSIGNMENTS

Journal

## MODULE 2: JURASSIC PARK (1993)

*"God help us, we're in the hands of engineers!" — Dr. Ian Malcolm*

### CLASS

September 3, 2024

### PRE-CLASS ASSIGNMENTS

Read chapter 2 of *Films from the Future*.

Five Most Important Sentences assignment

Pre-Movie 1-2-3 assignment

### CONTENT

We'll be watching and discussing the movie Jurassic Park together in class, and reading about and discussing topics that are related to/inspired by it.

### WHAT TO WATCH FOR

**When Dinosaurs Ruled the Earth.** Gene editing, complexity, and social responsibility.

**De-Extinction.** The technology of bringing back extinct species.

**Could We, Should We?** The ethics and responsibility of cutting edge science.

**The Butterfly Effect.** "Chaos theory", and developing new technologies within complex and chaotic systems.

**Visions of Power.** Innovation in an age of mega entrepreneurs, and profit-driven science.

### POST-CLASS ASSIGNMENTS

Journal

## MODULE 3: NEVER LET ME GO (2010)

*"Who'd make up stories as horrible as that?" - Ruth*

### CLASS

September 10, 2024

## PRE-CLASS ASSIGNMENTS

Read chapter 3 of *Films from the Future*.  
Five Most Important Sentences assignment  
Pre-Movie 1-2-3 assignment

## CONTENT

We'll be watching and discussing the movie *Never Let Me Go* together in class, and reading about and discussing topics that are related to/inspired by it.

## WHAT TO WATCH FOR

**Sins of Futures Past.** Cloning, human rights, social norms, and moral cowardice.

**Cloning.** The science, technology, and ethics, human reproductive cloning.

**Genuinely Human?** Evaluating the rights of individuals in the face of transformative technologies.

**Too Valuable to Fail?** Technology innovation and the moral imperative.

## POST-CLASS ASSIGNMENTS

Journal

## MODULE 4: MINORITY REPORT (2002)

*"If there's a flaw, it's human - it always is"* — Danny Witwer

## CLASS

September 17, 2024

## PRE-CLASS ASSIGNMENTS

Read chapter 4 of *Films from the Future*.  
Five Most Important Sentences assignment  
Pre-Movie 1-2-3 assignment

## CONTENT

We'll be watching and discussing the movie *Minority Report* together in class, and reading about and discussing topics that are related to/inspired by it.

## WHAT TO WATCH FOR

**Criminal Intent.** Predicting intent, preemptive justice, ethics of innovation, and the law.

**The “Science” of Predicting Bad Behavior.** The use of science and technology in attempts to predict criminal tendencies.

**Criminal Brain Scans.** fMRI, behavior prediction, and the ethics of preemptive justice.

**Machine Learning Based Precognition.** Using AI-based techniques to attempt to predict and prevent criminal behavior.

**Big Brother, Meet Big Data.** The challenges of making sense of privacy in a data-rich, interconnected world.

#### POST-CLASS ASSIGNMENTS

Journal

Bigger Picture assignment 1

## MODULE 5: LIMITLESS (2011)

*“I don't have delusions of grandeur, I have an actual recipe for grandeur.” Eddie Morra*

#### CLASS

September 24

#### PRE-CLASS ASSIGNMENTS

Read chapter 5 of *Films from the Future*.

Five Most Important Sentences assignment

Pre-Movie 1-2-3 assignment

#### CONTENT

We'll be watching and discussing the movie *Limitless* together in class, and reading about and discussing topics that are related to/inspired by it.

#### WHAT TO WATCH FOR

**A Pill for Everything.** Cognitive enhancement, equity, and intelligence.

**The Seduction of Self-Enhancement.** Introducing chemical substance-based approaches to chemical enhancement, and the drivers behind their development and use.

**Nootropics.** The science and technology of using pharmaceuticals to alter cognitive abilities.

**If You Could, Would You?** The ethics and norms of personal cognitive enhancement.

**Privileged Technology.** Social equity and differential access to future cognitive enhancements.

**Our Obsession with Intelligence.** Exploring the nature and value of intelligence.

#### POST-CLASS ASSIGNMENTS

Journal

## MODULE 6: ELYSIUM (2013)

*"They are armed, and I'd like them dead" - Carlisle*

#### CLASS

October 1, 2024

#### PRE-CLASS ASSIGNMENTS

Read chapter 6 of *Films from the Future*.

Five Most Important Sentences assignment

Pre-Movie 1-2-3 assignment

#### CONTENT

We'll be watching and discussing the movie Elysium together in class, and reading about and discussing topics that are related to/inspired by it.

#### WHAT TO WATCH FOR

**The Poor Shall Inherit The Earth.** Social justice and access to technology innovation.

**Bioprinting our Future Bodies.** The emerging technologies behind 3D printing tissues and organs, and the opportunities and challenges they raise.

**The Disposable Workforce.** Workplace safety and justice in a technologically advanced future.

**Living in an Automated Future.** The challenges and opportunities of automation.

#### POST-CLASS ASSIGNMENTS

Journal

## MODULE 7: GHOST IN THE SHELL (1995)

*"As an autonomous life-form, I request political asylum" — Puppet Master*

## CLASS

October 8, 2024

### PRE-CLASS ASSIGNMENTS

Read chapter 7 of *Films from the Future*.

Five Most Important Sentences assignment

Pre-Movie 1-2-3 assignment

### CONTENT

We'll be watching and discussing the movie *Ghost in the Shell* together in class, and reading about and discussing topics that are related to/inspired by it. We'll also be reviewing how the class is going so far.

### WHAT TO WATCH FOR

**Through a Glass Darkly.** Augmentation, cyber-convergence, and identity.

**Body Hacking.** Cyber-augmentation and transhumanism.

**More than "Human"?** The challenges and opportunities of physical and neural augmentation.

**Plugged In; Hacked Out.** Cybersecurity and the connected brain.

**Your Corporate Body.** Who will own your augmented self?

### POST-CLASS ASSIGNMENTS

Journal

## FALL BREAK

### NO CLASS

October 15, 2024

### ASSIGNMENTS

There are no assignments this week.

This is a really good week to catch up on missed assignments, to work on forthcoming assignments, and to work on Big Picture assignment 2 which is due next week!

## MODULE 8: EX MACHINA (2014)

*"One day the AIs are going to look back on us the same way we look at fossil skeletons on the plains of Africa. An upright ape living in dust with crude language and tools, all set for extinction."* — Nathan Bateman

### CLASS

October 22, 2024

### PRE-CLASS ASSIGNMENTS

Read chapter 8 of *Films from the Future*.

Five Most Important Sentences assignment

Pre-Movie 1-2-3 assignment

### CONTENT

We'll be watching and discussing the movie *Ex Machina* together in class, and reading about and discussing topics that are related to/inspired by it.

### WHAT TO WATCH FOR

**Plato's Cave.** Artificial intelligence (AI), permissionless innovation, and emergent risk.

**The Lure of Permissionless Innovation.** The pros and cons of innovation without checks and balances.

**Technologies of Hubris.** The myths, realities, opportunities, and dangers, of technological hubris.

**Superintelligence.** Framing the plausible challenges and opportunities of AI.

**Artificial Manipulation.** How vulnerable are we to being psychologically and socially manipulated by future AI?

### POST-CLASS ASSIGNMENTS

Journal

Bigger Picture assignment 2

## MODULE 9: TRANSCENDENCE (2014)

*"You know what the computer did when he first turned it on? It screamed."* — Bree Evans

### CLASS

October 29, 2024

## PRE-CLASS ASSIGNMENTS

Read chapter 9 of *Films from the Future*.  
Five Most Important Sentences assignment  
Pre-Movie 1-2-3 assignment

## CONTENT

We'll be watching and discussing the movie *Transcendence* together in class, and reading about and discussing topics that are related to/inspired by it.

## WHAT TO WATCH FOR

**Visions of the Future.** Technological convergence and existential risk.

**Technological Convergence.** The emergence, nature of, and implications of, converging technologies and the Fourth Industrial Revolution.

**Enter the Neo-Luddites.** Exploring the moral boundaries between promoting and resisting innovation.

**Techno-Terrorism.** The myths and realities of direct action opposing technology innovation.

**Exponential Extrapolation.** The dangers of extrapolating non-linear trends in tech innovation into the future.

**Make-Believe in the Age of the Singularity.** Avoiding the lure of the fantastical and scientifically implausible when considering the future.

## POST-CLASS ASSIGNMENTS

Journal

## MODULE 10: THE MAN IN THE WHITE SUIT (1951)

*"Why can't you scientists leave things alone? What about my bit of washing, when there's no washing to do?" - Mrs. Watson*

## CLASS

November 5, 2024

## PRE-CLASS ASSIGNMENTS

Read chapter 10 of *Films from the Future*.  
Five Most Important Sentences assignment  
Pre-Movie 1-2-3 assignment

## CONTENT

We'll be watching and discussing the movie *The Man in the White Suit* together in class, and reading about and discussing topics that are related to/inspired by it.

## WHAT TO WATCH FOR

**There's Plenty of Room at the Bottom.** Nanotechnologies, and control of the material world.

**Mastering the Material World.** Emerging trends in nanoscale science and engineering.

**Myopically Benevolent Science.** The potential consequences of well-intentioned but ill-conceived science and technology.

**Never Underestimate the Status Quo.** The tension between innovation and social/economic resistance.

**It's Good to Talk.** The importance of multi-stakeholder engagement in technology innovation .

## POST-CLASS ASSIGNMENTS

Journal

## MODULE 11:INFERNO (2016)

*"If a plague exists, do you know how many governments would want it and what they'd do to get it?" — Sienna Brooks*

## CLASS

November 12, 2024

## PRE-CLASS ASSIGNMENTS

Read chapter 11 of *Films from the Future*.  
Five Most Important Sentences assignment  
Pre-Movie 1-2-3 assignment

## CONTENT

We'll be watching and discussing the movie *Inferno* together in class, and reading about and discussing topics that are related to/inspired by it.

## WHAT TO WATCH FOR

**Decoding Make-Believe.** Ideology, biotech, harmful intent, and responsible innovation.

**Weaponizing the Genome.** Genetic manipulation, dual-use innovation, gain-of-function research, and nefarious intent.

**Immoral Logic?** Bioethics, and the danger of justifying extreme actions on the basis of future extrapolation.

**The Honest Broker.** Bridging the divide between science and politics.

**Dictating the Future.** Exploring who decides which technological futures play out.

#### POST-CLASS ASSIGNMENTS

Journal

Bigger Picture assignment 3

## MODULE 12: THE DAY AFTER TOMORROW (2004)

*"We were wrong" - Vice President Becker*

#### CLASS

November 19, 2024

#### PRE-CLASS ASSIGNMENTS

Read chapter 12 of *Films from the Future*.

Five Most Important Sentences assignment

Pre-Movie 1-2-3 assignment

#### CONTENT

We'll be watching and discussing the movie *The Day After Tomorrow* together in class, and reading about and discussing topics that are related to/inspired by it.

#### WHAT TO WATCH FOR

**Our Changing Climate.** Climate change, geoengineering and social/technical transitions.

**Fragile States.** The challenges of surviving and thriving on a dynamic and precarious planet.

**A Planetary "Microbiome".** Exploring the balance and coupling between planetary systems and society.

**The Rise of the Anthropocene.** Introducing and exploring the concept of the anthropocene.

**Building Resiliency.** The nature of resiliency in a dynamic world.

**Geoengineering the Future.** The technology, ethics, and potential impacts, of geoengineering.

#### POST-CLASS ASSIGNMENTS

Journal

### MODULE 13: CONTACT (1997)

*"OK to go" - Ellie Arroway*

#### CLASS

November 25

#### PRE-CLASS ASSIGNMENTS

Read chapter 13 of *Films from the Future*.  
Five Most Important Sentences assignment  
Pre-Movie 1-2-3 assignment

#### CONTENT

We'll be watching and discussing the movie Contact together in class, and reading about and discussing topics that are related to/inspired by it.

#### THEMES

**An Awful Waste of Space.** Science, belief, curiosity, wonder, and meaning.

**More than Science Alone.** The dynamic between belief, passion, vision, purpose, and science.

**Occam's Razor.** Tempering imagination with critical thinking, and grappling with the limits of evidence.

**What if we're not alone?** What the possibility of extra terrestrial life says about us and our future.

#### POST-CLASS ASSIGNMENTS

Journal

### MODULE 14: IT'S A WRAP

*"Don't panic!" - The Book*

#### CLASS

We'll be watching a science fiction movie of your choice to wrap the class up — more details later in the course.

### PRE-CLASS ASSIGNMENTS

Read chapter 14 of *Films from the Future*.  
Five Most Important Sentences assignment

### CONTENT

The focus of this module is the self assessment

### POST-CLASS ASSIGNMENTS

Self Assessment



# IMPORTANT ADDITIONAL INFORMATION PLEASE READ

*This syllabus is subject to change, and will always be superseded by the syllabus on Canvas. It is your responsibility to read e-mail updates from the instructor as well as check the Canvas site for updates. Communication will be through your @ASU.EDU email only – please make sure you check it daily. E-mail questions and concerns from students are encouraged. The Instructor will try to respond to e-mailed questions within 48 hours.*

**Please note that the syllabus posted on Canvas for the course supersedes this syllabus if there are inconsistencies and conflicts**

## READ THE SYLLABUS!

I know it's pointless including this, because of you're here, you're reading the syllabus! But please do read the syllabus carefully and frequently — it contains everything you need to pass the course, and excel in it. If you lose points because of a dumb mistake, the chances are you didn't read the syllabus.

## CANVAS

All course materials, and assignments — including rubrics and assignment submissions — will be handled through Canvas. The course Canvas site will go live at least a week before the course starts — if you're having trouble accessing it, please email the course instructor.

## COURSE BIBLIOGRAPHY

A bibliography of resources for the course (including copies of papers and links to articles, where appropriate) will be included on Canvas. These will include websites, articles, papers, and books, referenced in the course text *Movies From The Future*, and should be used for additional reading and research, and the final course essay.

## COURSE EVALUATIONS

Course and instructor evaluations are extremely important to ensure the continued quality and relevance of this course. The course/instructor evaluation for this course will be conducted online 7-10 days before the last official day of classes of each semester or summer session. Response(s) to

the course/instructor are anonymous and will not be returned to your instructor until after grades have been submitted.

The use of a course/instructor evaluation is an important process that allows the School for the Future of Innovation in Society to help faculty improve their instruction; to help administrators evaluate instructional quality; to ensure high standards of teaching; and to ultimately improve instruction and student learning over time.

Completion of the evaluation is not required for you to pass this class and will not affect your grade, but your cooperation and participation in this process is critical. About two weeks before the class finishes, watch for an e-mail with "ASU Course/Instructor Evaluation" in the subject heading.

## ELECTRONIC DEVICES USE DURING CLASS

There may be occasions where phones, tablets and laptops may be expected to be used in class to participate in quizzes, do in-class research, fact check, or for other purposes. However, it is expected that students do not use electronic devices for non-class purposes during class time.

## USE OF AI

AI tools such as ChatGPT can help learning in many ways, and we're only just beginning to scratch the surface of what they can do and how they can be used. But they also have their limitations and ethically questionable ways of being used – which makes them a particularly interesting topic in this course!

You are actively encouraged to use AI tools such as ChatGPT where they help you learn, and a number of assignments explicitly allow and even encourage their use. At the same time, you are strongly encouraged to ensure that you understand their responsible use in the class, and ways in which they can cause you problems (especially if you are not supposed to be using them). If you are interested in exploring their responsible and ethical use further, along with their limitations, there are a number of exercises here that it's worth exploring: <https://andrewmaynard.net/an-introduction-to-basic-prompt-engineering-with-chatgpt/>

While the use of these tools (and experimentation with them) is encouraged, please do not use them where you are asked not to in assignments. Evidence of their use in these cases may lead to points being deducted.

If you submit text for assignments that you claim of indicate is your own, but is later found to have been generated by AI, you may be found in violation of ASU academic integrity policies and this may impact your course grade.

In other words, please use ChatGPT and other tools where they help you learn and where they are allowed in assignments – and always make it clear where you have used them -- and you should be fine. Any question or concerns though, please ask.

## PROFESSIONALISM DURING CLASS

While learning happens throughout ASU, the class (whether remote or in person) is a particularly important focal point. Students are asked to contribute to a collegial atmosphere where ideas can be exchanged, discussed, and debated freely by avoiding disruptions through their own behavior and the distractions of their technology. Disruptive, threatening or violent behavior will be dealt with according to the policies in the Student Services Manual, SSM 104–02. Students wishing to record lectures electronically must first get permission from the instructor.

## **ARIZONA STATE UNIVERSITY POLICIES, STANDARDS, AND EXPECTATIONS**

### ADD/DROP/WITHDRAWALS DEADLINE

The enrollment deadline for this course is determined by the [ASU Academic Calendar](#). Please speak with your Academic Advisor regarding any questions or concerns you may have on the enrollment deadlines.

It may be appropriate to Withdraw from the course if we've passed the enrollment period. Please review the [ASU policies on adjusting your class after the deadline](#). Once again, please speak with your academic advisor if you have any questions or concerns regarding this process.

### GRADE APPEALS

Grade disputes must first be addressed by discussing the situation with the instructor. If the dispute is not resolved with the instructor, the student may appeal to the School of Sustainability per the [University Policy for Student Appeal Procedures on Grades](#). Undergraduate students, please see additional instructions for [undergraduate College of Global Futures courses](#). Graduate student grade appeals are initiated within the school offering the course (please email [CGF@asu.edu](mailto:CGF@asu.edu) for more information about initiating a grade appeal for a graduate course in the College of Global Futures).

### TUTORING

ASU offers a variety of support services from the University Academic Success Programs (UASP). If you're looking for specific support in writing or other academic assistance, please contact UASP via any of the following methods:

- ASU Tutoring Site
- Call: 1-480-965-9072

## ATTENDANCE AND ABSENCES

Attendance and participation in class activities is an essential part of the learning process, and students are expected to attend class regularly. Some absences are, however, unavoidable. Excused absences for classes will be given without penalty to the grade in the case of (1) a university-sanctioned event [[ACD 304-02](#)]; (2) [religious holidays](#) [[ACD 304-04](#)]; (3) work performed in the line-of-duty [[SSM 201-18](#)]; and (4) illness, quarantine or self-isolation related to illness as documented by a health professional.

Anticipated absences for university-sanctioned events, religious holidays, or line-of-duty activity should be communicated to the instructor by email or through Canvas at least **3 days** before the expected absence.

Absences for illness, quarantine or self-isolation related to illness should be documented by a health professional and communicated to the instructor as soon as possible through the Canvas Inbox.

Excused absences do not relieve students from responsibility for any part of the course work required during the period of absence. Faculty will provide accommodations that may include participation in classes remotely, access to recordings of class activities, and make-up work.

If there is a disagreement as to whether an absence should be accommodated, the instructor and student should contact the academic unit chair immediately for resolution.

## COMMUNITY OF CARE

As Sun Devils, we take care of ourselves, each other, and our community. For up-to-date information about helping to maintain the health of our community, please visit ASU's [Live Well @ ASU: Wellness and Community Care During COVID-19](#).

## DISCRIMINATION, HARASSMENT, AND RETALIATION

[ACD-401 Prohibition against Discrimination, Harassment, and Retaliation](#), prohibits discrimination, harassment, or retaliation on the basis of race, sex, gender identity, age, religion, national origin, disability, sexual orientation, and veteran status. Violations of this policy may result in disciplinary action, including termination of employees or expulsion of students. Contact the Office of Student Rights and Responsibilities at (480) 965-6547, if you feel another student is harassing you based on any of the factors above; contact the Office of Equity and Inclusion at (480) 965-5057 if you feel an ASU employee is harassing you based on any of the factors above.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the

basis of sex or sexually assaulted, you can find information and resources at [ASU's Sexual Violence Prevention Site](#).

As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual violence and dating violence. [ASU Counseling Services](#) is available if you wish to discuss any concerns confidentially and privately. ASU online students may access [360 Life Services](#).

## DISRUPTIVE STUDENT BEHAVIOR

Students are entitled to receive instruction free from interference by other members of the class. An instructor may withdraw a student from the course when the student's behavior disrupts the educational process per the [SSM 201-10 Instructor Withdrawal of a Student for Disruptive Classroom Behavior](#) and [SSM 104-02 Handling Disruptive, Threatening, or Violent Individuals on Campus](#) policies.

Appropriate online behavior (also known as netiquette) is defined by the instructor and includes keeping course discussion posts focused on the assigned topics. Students must maintain a cordial atmosphere and use tact in expressing differences of opinion. Inappropriate discussion board posts may be deleted by the instructor.

## PROHIBITION OF COMMERCIAL NOTE TAKING SERVICES

Course content, including lectures, are copyrighted materials. Students may not share outside the class, upload, sell, or distribute course content or notes taken during the conduct of the course (see [ACD 304-06 Commercial Note Taking Services](#) for more information).

## STUDENT CODE OF CONDUCT AND ACADEMIC INTEGRITY

Students have the responsibility to understand and follow ASU's [Student Code of Conduct](#) and [Academic Integrity Policy](#). You may face ethical decisions during your time as a student. If you're not sure whether or not something is permitted, it is your responsibility to ask questions or find out by doing more research using the links above. Any violations in this course are subject to sanctions and will be reported to the College of Global Futures and the college or school of your major.

The Office of Student Rights and Responsibilities accepts [incident reports](#) from students, faculty, staff, or other persons who believe that a student or a student organization may have violated the Student Code of Conduct.

Academic Integrity (also known as cheating, copying others' work, uploading your work online to encourage cheating by others, or even reusing your own work) falls under the Student Code of Conduct. Possible sanctions for violations include, but are not limited to, appropriate grade penalties, course failure (indicated on the transcript as a grade of E), course failure due to academic dishonesty (indicated on the transcript as a grade of XE), suspension, and expulsion.

Beware that some websites promote themselves as tutoring and educational resource sites but may actually be sites that put you at risk for an academic integrity violation if you are using the

services to submit work that is not your own or gain knowledge of what to expect on a quiz or exam.

**Important:** Students must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's original work, unless the students first comply with all applicable copyright laws; faculty members reserve the right to delete materials on grounds of suspected copyright infringement.

All academic integrity violations are reported to the College of Global Futures Academic Integrity Office (AIO). The AIO maintains record of all violations and has access to academic integrity violations committed in all other ASU college/schools.

## PLAGIARISM STATEMENT

Plagiarism of any kind will not be tolerated. Students must take the exams independently without assistance from other students. Students may not submit papers written by persons other than themselves. Students must submit original work for this course and may not submit papers previously submitted to (an)other class(es). The ASU student academic integrity policy lists violations in detail. These violations fall into five broad areas that include but are not limited to: (1) Cheating on an academic evaluation or assignment; (2) Plagiarizing; (3) Academic deceit, such as fabricating data or information; (4) Aiding academic integrity policy violations and inappropriately collaborating; (5) Falsifying academic records. See the [Provost Site on Academic Integrity](#).

## DISABILITY ACCOMMODATIONS

ASU provides professional disability specialists and support staff through the office of [Student Accessibility and Inclusive Learning Services \(SAILS, formerly the DRC\)](#) for all qualified students. You may be eligible for additional support and accommodations per [ASU's Policy \(SSM 701-01\)](#).

Qualified students are encouraged to reach out the SAILS team through any of the following means:

- Phone: (480) 965-1234
- Email: [student.accessibility@asu.edu](mailto:student.accessibility@asu.edu).

### Additional Information and Resources

- [Dean of Students](#) – aka Educational Outreach and Student Services; provides opportunities for student advocacy, rights and responsibilities, and other support.
- [College of Global Futures](#) – this course is offered through the College of Global Futures at Arizona State University. Questions about the course should first be addressed with the instructor. If necessary, you may contact the Student Services Center by calling 480-727-6963 or emailing [CGF@asu.edu](mailto:CGF@asu.edu).
- [Career Services](#) – offers assistance to students in choosing their major, setting career goals, interviewing, and job-hunting strategies.

- [Counseling Services](#) – professional counseling and crisis services for students experiencing emotional concerns, problems in adjusting, and other factors that affect their ability to achieve their academic and personal goals. Support is available 24/7 between campus locations and EMPACT’s 24-hour ASU-dedicated crisis hotline.
- [Financial Aid and Scholarship Services](#) – offers information and applications for student funding such as grants, loans, scholarships, and student employment.
- [GPA Calculator](#) – students can use this calculator to project their GPA.
- [Libraries](#) - offers 24/7 access to librarians through "Ask a Librarian" online chat and help by librarians in person at the Reference Desk during most hours the libraries are open.
- [Tutoring and Writing Centers](#) – provides students with academic support services such as tutoring, peer advising, computer assisted instruction, writing support, and supplemental instruction
- [Contact Arizona State University](#) – provides frequently asked question resources and contact information for new questions.
- [ASU Basic Needs](#) – Please use this resource if you’re struggling with basic needs such as housing, access to food, or emergency financial assistance.
- [ASU’s Pitchfork Pantry](#) – Please use this Canvas Self-Enroll link to resources around accessing sustainable, adequate, and nutritious food.

## SYLLABUS DISCLAIMER

*All syllabi are subject to minor changes to meet the needs of the instructor, school, or class. Every effort will be made to avoid changing the course schedule, but the possibility exists that unforeseen events will make syllabus changes necessary. The instructor reserves the right to make changes to the syllabus as deemed necessary. Students will be notified in a timely manner of any syllabus changes. Please check your ASU email and the Announcements on the course site often.*