

Instructor	Year	Term	Course #	Course Title	Sect.
Dr. Matthew Crippen	2023	Spring	GS36539	Technology, Neuroethics, & Global Society	01

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Office Hours: Daily by Appointment

1. Course Objectives & Description

a) Course Description and Objectives

Technology, ethical issues in neurobiology and global matters interrelate for myriad reasons. To begin with, either researching or medically treating the brain is a technologically intensive big-business enterprise, with complexities amplified by agendas like Elon Musk's NeuroLink, which aims to wire brains into computers and the internet for work and entertainment purposes. Undertakings such as this raise a range of questions pertaining to the ethics of research, medicine and human augmentation, also relating to broader issues such as potentially unfair distribution of resources and increased stratification of society. Global questions are similarly numerous. One of them is that religious and cultural understandings of self may imply the acceptability or impermissibility of certain medical treatments. Another is the impact of social media on brain development, which may vary with place and have political and health ramifications. Likewise, place-based factors may lead us to question Western assumptions about whether certain neurological and psychiatric "disorders" are always maladaptive illnesses. Community practices additionally appear to affect the prognoses of conditions like schizophrenia and depression. Still another question is the extent to which social structures and established moral systems in distinct global regions lead to differences in brain development and hence ethical reasoning. Yet another question revolves around the ethical restrictions on research in different countries. An Italian-Chinese team is pursuing head transplants in China because such procedures would not get clearance in the West. Is this research directed towards the betterment of humankind in terms of pure or applied knowledge? Ought it to be done at all? If one says not, then what license do outsiders have to tell the Chinese how to conduct their affairs?

This course will divide into three units, with each exploring a segment of the topics described above. The first unit focuses on the ethics of neurobiological research and medicine, plus associated technologies in global contexts. The second unit looks at neurobiological bases of moral thinking, exploring potential influences of global cultures and technologies (e.g., social media) on this. The last unit questions whether the prognosis of neurological illness varies with place because of access to medical technologies or the way patients are treated within their communities, along with economic motivations that scientists and big pharma have for designating people as mentally ill. An additional question pursued in the last unit is whether certain psychiatric conditions are necessarily disorders or whether they may instead sometimes be rationally warranted reactions to challenging situations that people in some parts of the world face.

b) General Aims

- 1.** Develop healthy skepticism. The kind of skepticism we are after is found in science, yet science is less willing to overturn theories. Key: don't be an ideologue, e.g., neither liberal nor conservative frameworks are 100% good in all times and places. What works in one city or country at a particular time may be unsuitable in other regions at other times. You should look critically at any—including yourself—who advance one solution for all cases.
- 2.** Develop logical skills, both inductive and deductive, and apply these to historical texts and contemporary matters.
- 3.** Develop conceptual analysis, that is, the ability to decipher meaning. Many disputes occur because we confuse what others mean.
- 5.** Develop charitable thinking, especially for great texts. If you start with the assumption that something is stupid, you're not likely to work to understand it, meaning you are apt to confuse what it says.
- 6.** Develop contextual reasoning. We often misunderstand things by taking them out of context. Your parents do this to you; Americans do it to the Middle East; people from there do it to Americans. Texts answer historical problems. Understanding texts therefore means contextualizing them historically.
- 7.** Developing understanding and critical reasoning. Understanding is a difficult task, and you should be satisfied if you acquire a working understanding of texts. Understanding is a precondition of worthwhile criticism. Attacking without understanding—and hence without basis—is all too common today.
- 8.** Appreciating the human legacy. C. S. Lewis wrote: "Friendship is unnecessary, like philosophy, like art... It has no survival value; rather it is one of those things which give value to survival." Arguably, philosophy and art do have survival value, e.g., importance of founding political ideology, relation of aesthetics to health. That said, Lewis's point is that life is not worth living if we reduce it to making money, acquiring shelter, reproducing, etc. People facing much greater hardships than us appreciated this, with Modern and pre-Modern individuals taking time to produce philosophy and art, and study it.
- 9.** Applying what you learn. Throughout the term, you'll apply reasoning tools to contemporary issues, and draw connections between historical texts and current concerns.

2. Texts

Texts or library links for them will be posted on Plato.

3. Requirements & Grading

Grading

1. Tests, (25%), (25%), (30%) = (80%)
2. Online written assignments, quizzes, presentations and in-class and/or online participation (20%) are not meant to be onerous, but are intended to encourage you to keep up with assigned work, and should, if taken seriously, prepare you for tests. The idea behind short online writing assignments is to allow debate and creative introduction of new ideas from students. A second purpose is to give the professor to give ample and repeated feedback, and also to practice the art of communicating effectively and diplomatically in public forums since posts and comments on them will be public.

Attendance, Late Assignments and Missed Tests

This course may switch from offline to online. If offline, attendance is expected with more than five absences resulting in failure. There will be weekly small assessments such of quizzes, in-class group assignments and participation that cannot be made up if students are absent.

Missed tests and assignments **will be graded 'F.'** Exceptions will be made in the case of bereavement, medical emergency or for other serious reasons, but **supporting documentation may be required.**

Academic Honesty

Plagiarism is "submitting material that in part or whole is not one's own," or submitting "work without properly attributing the correct sources of its content." Cheating is defined as "using unauthorized notes, aids, or information on an examination; altering graded work prior to its return to a faculty member"; or "allowing another person to do one's work." Plagiarism, cheating and other breaches of academic integrity **will not be tolerated.** All suspected cases **will be** reported to university authorities, and all verified incidents, no matter how small, will result in failure for the entire course. It is your responsibility to know and adhere to the standards of academic integrity.

Students with Disabilities

Please contact me if you have special needs because of a learning or physical disability or because of a medical or psychological challenge. If you have a disability and think you will need assistance evacuating the classroom and/or building in an emergency, please make me aware so that the university can develop a plan to assist you.

Non-Discrimination

The instructor does not discriminate against any student because of age, gender, ethnicity, appearance, religion, political view, disability, national origin or lifestyle choices. The same is expected from students. We want to create a space for open and respectful intellectual exchange.

Note on Grading

Please note that grades are awarded on the basis of merit, not need. I accordingly ask you not to tell me what grade you need, and I insist that you do not ask me to arbitrarily raise your grade. Little worth doing is easy, so you should be prepared for a demanding course. Please note at the same time that I encourage you to set up office appointments for help achieving the grade that you want; and that I gladly give high grades when warranted, and if you put the requisite effort in, there is no reason you should not do well.

Syllabus

Tentative Schedule – Please follow emails/announcements because schedule may change!		
	Unit 1: Ethics of Neurobiology, Technology and Global Issues	
Week 1	Course introduction, thinking tools and basic ethical concept	
Week 2	Basic ethical concepts (continued) + medical and brain Ethics	
Week 3	Brain prosthetics, posthumanism, social stratification and cross-Cultural ideas about personhood	
Week 4	NeuroLink, big business and global markets	
Week 5	Head transplants in China	Test 1 (25%)
	Unit 2: Neurobiology of Ethics in Global Contexts	
Week 6	Neural mechanisms in emotions, reason and personality	

Week 7	Neuroscience and moral reasoning	
Week 8	Neuroscientific Insights on Freewill and Criminal Responsibility	
Week 9	Cross-cultural differences in ethical thinking and the development of the moral brain	
Week 10	Social media and brain development across cultures: Are there political ramifications?	Test 2 (25%)
	Unit 3: Place Matters: Identification, Prognosis and Treatments of Brain-Based Illnesses	
Week 11	Big pharma and science: Manufacturing patients?	
Week 12	PTSD and depression: Must they always be maladaptive disorders?	
Week 13	Depression and schizophrenia: Prognosis by geographic region	
Week 14	Sick brains and treatment of geographical region	Test 3 (30%)
Week 15	Review	