COURSE OVERVIEW

Technology takes shape through its complex entanglement with society, operates within a social context and has social consequences. This social dimension of technology inevitably makes it subject to ethical considerations. In other words, technological applications are related to categories such as right and wrong, good and bad, just and unjust, involving people, animals, plants, and the environment on national, international, and global scales.

This course aims to introduce students to the ethical dimensions of technology. To this end, it is designed to first provide students with a basic understanding of the ontology of technology, ethics, and major moral theories. Subsequently, it aims to equip them with the ability to apply these theories to technology and critically assess its ethical implications in relation to issues such as animal and environmental welfare, sustainability, privacy and surveillance, nudges, misinformation, deepfakes, technological bias, applications of AI, robotics, and autonomous systems. The course also seeks to develop a critical perspective on taken-for-granted practices and to promote career development aligned with consistent moral values and norms, fostering a sense of responsibility toward the public good.

COURSE OBJECTIVES

The main objectives of the course are as follows:
1) To understand the fundamental concepts of ethics and apply them to technological contexts,
2) To be able to critically evaluate the individual and social impacts of technology,
3) To understand the main moral challenges arising from the use of technology,
4) To coherently analyze and assess the moral arguments related to these challenges,
5) To encourage students to transform the original analyses and critical evaluations they develop during the course into academic publications.

COURSE REQUIREMENTS

Participation in discussions: The course format requires active participation from all attendees. You are expected to prepare for each session by thoroughly reading and reflecting on the assigned materials. The aim of the discussions is to collaboratively interpret, critique and expand upon the readings by examining their arguments, evidence and perspectives. You should be ready to share your insights and questions with the group during each session without hesitation.

Attendance: Attendance is mandatory in this course, which requires both regular attendance and active participation. Students who are absent for more than three weeks during the semester without an official excuse will be considered to have failed the attendance requirement and will receive a grade of VF. If a student has a valid reason for being absent, such as illness or an emergency, they must provide official documentation to receive an excused absence. If a student has a chronic condition or a personal crisis that will frequently prevent them from attending the class during the semester, they are highly encouraged to talk to the course instructors as early as possible. Only one missed week might be allowed with a valid official excuse.

Oral Presentations: This section of the course aims to enhance the students' oral communication and critical analysis skills. To achieve this goal, each student is required to give a presentation in the assigned sessions. Each presentation should be no longer than 20 minutes and should be based on the assigned text(s) from the course material. The presentation must include:
a) A summary of the main argument of the text,
b) An explanation of how the argument is justified,
c) A clear connection between the text and the overall course content,
d) The presenter's critical questions, comments, and/or counterarguments on the text.

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Additionally, each presentation should:
a) Be focused and clear, and delivered in a well-structured manner,
b) Emphasize the theoretical dimension of the topic,
c) Demonstrate the presenter's knowledge of the subject and the further research conducted,
d) Clearly reflect the presenter's intellectual effort.

All oral presentations must be visually supported by a PowerPoint presentation.

Term Paper and Presentation: A term paper is a major assignment that requires students to conduct independent research and present their findings in a clear and persuasive way. In the term paper, students are expected to focus on an ethical problem relevant to their area of expertise in an original way. Originality can be achieved by adopting at least one of the following approaches:

• Propose a research question that has never been asked before in the literature,
• Demonstrate the invalidity of previously asked questions,
• Offer a different answer to a question that has already been posed in the literature,
• Show that existing answers are invalid, inadequate, or flawed,
• Justify an existing answer using a methodologically different approach while invalidating existing approaches giving the same answer,
• etc.

The term paper should:
a) Present a research question and put forward arguments that are clearly and concisely stated and thoroughly justified,
b) Be focused and clear, and written in a well-structured manner,
c) Emphasize the theoretical dimension of the topic,
d) Demonstrate the presenter's knowledge of the subject and the further research conducted,
e) Clearly reflect the presenter's intellectual effort.

The term paper should be 5,000–6,000 words in length (excluding the bibliography) and should include the following components, though it is not required to present them under separate headings:

a) Introduction: This section should introduce the research question or problem, explain why it is important and interesting, and provide an overview of the main argument and structure of the paper.
b) Literature review: This section should review the existing literature on the topic, identify the main debates and gaps, and situate the paper's contribution within the scholarly context.
c) Analysis and discussion: This section should present and interpret the findings of the research, justification of the main argument with evidence and logic, and address possible counterarguments and limitations.
d) Conclusion: This section should summarize the main points of the paper, restate the thesis statement, and discuss the implications and significance of the research.

Each term paper must be presented orally by the student before the final version is submitted. Term paper presentations will take place one week before the term paper is due, on the day of the class.

Term Paper Proposal: Before writing the term paper, students are required to submit a research paper proposal of 1,000–1,200 words, including a brief literature review and a short bibliography. The proposal should state the research question or problem, explain the argumentative direction of the paper, and provide an outline of the main points. The proposal is due on the 10th week of the semester.

Submission: One of the primary objectives of the career development package courses, including this course, is to increase students' academic competence and productivity. In this direction, students are encouraged to publish in line with the perspectives they have acquired during the course. Therefore, students are expected to submit an abstract, extended abstract, or full text of the term paper on the topic covered in the term paper for presentation at a conference or for publication in a journal, and to

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document this to the instructors no later than June 20, 2026, 23:59 p.m. (the day before the deadline for entering final grades).

EVALUATION CRITERIA

Activity	Effect on grading (%)
Participation in discussions*	15
Oral presentations**	25
Term paper proposal	15
Term paper and presentation	30+10
Submission	5
TOTAL	**100**

* Missing a class will have a negative effect on the participation score as it eliminates the opportunity to participate in discussions.

** The situation of those who present more than the normal number of presentations will be considered in grading.

GRADING SCALE

Letter grades	grade in %	Letter grades	grade in %
AA	95 ≤ g ≤ 100	**CB+**	**70 ≤ g < 75**
BA+	**90 ≤ g < 95**	CB	65 ≤ g < 70
BA	85 ≤ g < 90	**CC+**	**60 ≤ g < 65**
BB+	**80 ≤ g < 85**	CC	55 ≤ g < 60
BB	75 ≤ g < 80	**FF**	**0 ≤ g < 55**

VF Condition: Students who are absent for more than **three weeks** in the semester without an official excuse will be considered to have failed the attendance requirement. Only one missed week might be allowed with a valid official excuse.

RESOURCES

The bibliographies of the course resources are given in detail in the SCHEDULE section in the next page. Course resources can also be found in the class Kovan folder.

> All assignments must be written in accordance with ITU Graduate Thesis Writing Guide and APA (7th edition) style and grammar guidelines and submitted via Turnitin.

CONTACT

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SCHEDULE

SECTION I. INTRODUCTION TO ETHICS AND TECHNOLOGY	
Week 1 (11.02.26)	**Introduction to Ethics and Technology** **Topics:** • What is ethics? • Why ethics matters in technological contexts • Overview of ethical frameworks **Guiding Questions:** • What does it mean to act ethically? • Can technology be neutral? • How do ethical considerations shape technological development? • What distinguishes ethical from legal or social concerns in tech? • How do ethical frameworks help us evaluate innovation? **Discussion Questions:** • Can you think of a recent technology that raised ethical concerns? Why?

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	• Should engineers and designers be held morally accountable for the consequences of their technologies? • Is ethical reflection a luxury or a necessity in tech innovation? **Case Study: Facial Recognition in Public Spaces** Governments and private companies are deploying facial recognition systems for surveillance, marketing, and law enforcement. Critics argue this violates privacy and civil liberties. Supporters claim it enhances security and efficiency. **Readings:** R1. Shafer-Landau, R. (2024). *The Fundamentals of Ethics*, Ch. 1 R2. Reijers, W., Young, M.T., & Coeckelbergh, M. (2025). *Introduction to the Ethics of Emerging Technologies* R3. Nyholm, S. (2023). *This is Technology Ethics: An Introduction*
Week 2 (18.02.26)	**Technology and Ethics: Intersections and Implications** **Topics:** • Defining technology • Value-neutral vs. value-laden technology • Ethics in design and implementation **Guiding Questions:** • Is technology inherently value-laden? • How do embedded values affect society? • What ethical responsibilities do designers and developers have? • Can ethical design prevent harm or injustice? • How do political and economic interests shape technological ethics? **Discussion Questions:** • Can algorithms be truly neutral? • What ethical values should be prioritized in tech design? • How do technologies reflect the moral assumptions of their creators? **Case Study: Bias in AI Hiring Tools** AI systems used for recruitment have been found to discriminate against women and minorities. How can we ensure fairness and accountability in algorithmic decision-making? **Readings:** R1. Parens, E. (2014). "Technology as Value-Free and as Value-Laden" R2. Dusek, V. (2023). "The Definition of Technology" R3. Pitt, J.C (2023). "Value-Free Technology?" R4. Morrow, D. (2023). "The Values Built into Technologies" R5. Winner, L. (1980). "Do Artifacts Have Politics?"
SECTION II. MORAL THEORY	
Week 3 (25.02.26)	**Metaethics: Foundations of Moral Thought** **Topics:** • Moral Relativism, Nihilism, Objectivism **Guiding Questions:** • Are moral truths universal or culturally dependent? • Is morality real or constructed? **Discussion Questions:** • If morality is relative, how can we critique unethical technologies across cultures? • Can AI systems be programmed with objective moral principles? • How does moral nihilism challenge the idea of ethical responsibility in tech? • How do metaethical positions influence policy and design decisions?

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	• What are the implications of moral skepticism for tech regulation? **Case Study: Content Moderation on Global Platforms** Social media platforms apply moderation algorithms globally, often clashing with local cultural norms. Should platforms enforce universal standards or adapt to regional ethics? **Readings:** R1. Shafer-Landau, R. (2024). *The Fundamentals of Ethics*, Ch. 19–21 R2. Mackie, J.L. (1977). *Ethics: Inventing Right and Wrong* R3. Harman, G. (1975). "Moral Relativism Defended" R4. Shafer-Landau, R. (2003). *Moral Realism: A Defense*
Week 4 **(04.03.26)**	**Normative Ethics I: Egoism and Consequentialism** **Topics:** • Psychological and Ethical Egoism • Utilitarianism **Guiding Questions:** • Do humans always act in self-interest? • Can utilitarianism guide ethical tech design? • What are the limits of outcome-based reasoning? • How do we weigh individual vs. collective interests in tech ethics? • Can consequentialism justify ethically controversial innovations? **Discussion Questions:** • Should tech companies prioritize user happiness over profit? • Is it ethical to use surveillance if it maximizes public safety? • How do we measure "the greatest good" in digital platforms? **Case Study:** Should self-driving cars be programmed to sacrifice passengers to save pedestrians? Who decides what outcomes are ethically preferable? **Readings:** R1. Shafer-Landau, R. (2024). *The Fundamentals of Ethics*, Ch. 7–10 R2. Bentham, J. (1789). *An Introduction to the Principles of Morals and Legislation* R3. Mill, J.S. (1863). *Utilitarianism*
Week 5 **(11.03.26)**	**Normative Ethics II: Deontology and Social Ethics** **Topics:** • Kantian Ethics • Natural Law Theory • Social Contract Theory **Guiding Questions:** • What does it mean to act out of duty? • How do laws and reason shape moral obligations? • What is the role of autonomy and dignity in tech ethics? • How do social contracts apply to digital citizenship? • Can deontological ethics resolve conflicts in tech design? **Discussion Questions:** • Should autonomous vehicles follow strict moral rules or weigh outcomes? • Can digital contracts replace traditional social agreements? • Is it ethical to break laws for technological progress? **Case Study: User Data and Informed Consent** Tech companies collect vast amounts of user data through complex terms of service. Is it ethical to assume consent when users don't understand what they're agreeing to?

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	Readings: R1. Shafer-Landau, R. (2024). *The Fundamentals of Ethics*, Ch. 6, 11–15 R2. Kant, I. (1785). *Groundwork for the Metaphysics of Morals* R3. Rawls, J. (1971). *A Theory of Justice*
Week 6 (25.03.26)	**Normative Ethics III: Virtue Ethics and Ethics of Care** **Topics:** • Virtue Ethics • Feminist Ethics and Ethics of Care **Guiding Questions:** • How do character and virtues shape ethical behaviour? • What role does care play in moral reasoning? • How do relationships and emotions factor into ethical tech design? • Can virtue ethics guide long-term responsibility in innovation? • How do feminist ethics challenge dominant tech paradigms? **Discussion Questions:** • Should empathy be a design principle in social media platforms? • How can virtue ethics inform responsible AI development? • Is the ethics of care more applicable to healthcare technologies? **Case Study: AI Companions for Elderly Care** AI robots are being used to provide companionship and support for elderly individuals. Can machines truly care? What ethical obligations do designers have to ensure dignity and emotional well-being? **Readings:** R1. Shafer-Landau, R. (2024). *The Fundamentals of Ethics*, Ch. 16-18 R2. Noddings, N. (1984). *Caring: A Feminine Approach to Ethics and Moral Education* R3. MacIntyre, A. (1981). *After Virtue* R4. Nussbaum, M.C. (2011). *Creating Capabilities: The Human Development Approach*
SECTION III. ETHICS OF TECHNOLOGY
Week 7 (01.04.26)	**The Scope of Technology Development and Use** **Topics:** • The social ontology of technology: Needs, consciousness and technological development • The reach of the use of technology: Implications for the non-human environment • Is this the only way to comprehend our relationship to the world? Anthropocentrism, speciesism, biocentrism, ecocentrism • Value-inside: How do dominant ideologies shape our scientific and engineering practices? • Radical ways to change the order of things concerning our relationship to the world: Deep ecology, Eco-feminism, Marxist ecology **Readings** • No readings
Week 8 (08.04.26)	**Environmental Justice** R1. Klein, N. (2014). Hot money. In *This changes everything: Capitalism vs. the climate* (pp. 56-83). Penguin Random House. R2. TBD R3. TBD

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	R4. TBD
	Additional reading: Magdoff, F., & Foster, J.B. (2010, March 1). *What every environmentalist needs to know about capitalism*. Monthly Review. https://monthlyreview.org/2010/03/01/what-every-environmentalist-needs-to-know-about-capitalism/
Week 9 (15.04.26)	**Autonomy at Stake? Privacy and Surveillance**
	R1. Singer, P. (2022). Visible man: Ethics in a world without secrets. In R. Shafer-Landau, *Living ethics: An introduction with readings* (2nd ed., pp. 513-518). Oxford University Press.
	R2. Taylor, J. S. (2005). In praise of big brother: Why we should learn to stop worrying and love government surveillance. *Public Affairs Quarterly*, 19(3), 227–246. http://www.jstor.org/stable/40441413
	R3. Assange, J., Appelbaum, J., Müller-Maguhn, A., & Zimmermann, J. (2012). "Increased Communication versus Increased Surveillance". In *Cypherpunks: Freedom and the Future of the Internet.* OR Books.
	R4. Véliz, C. (2020). "Privacy is power" and "Conclusion". In *Privacy is power*. Bantam Press.
	Additional reading 1: Bloom, P. (2025). Capitalism reloaded. In *Capitalism reloaded: The rise of the authoritarian-financial complex* (1st ed., pp. 1–17). Bristol University Press. doi: 10.2307/jj.18323772.4
	Additional reading 2: Bloom, P. (2025). The rise of the authoritarian–financial complex. In *Capitalism reloaded: The rise of the authoritarian-financial complex* (1st ed., pp. 46–61). Bristol University Press. doi: 10.2307/jj.18323772.6
Week 10 (22.04.26)	**Autonomy at Stake? The Ethics of Nudging, Misinformation and Deepfake**
	R1. Schmidt, A. T., & Engelen, B. (2020). The ethics of nudging: An overview. *Philosophy Compass*, *15*(4), 1–13. doi: 10.1111/phc3.12658
	R2. Sunstein, C.R. (November 20, 2014). The ethics of nudging. *Harvard Public Law Working Paper Forthcoming*. doi: 10.2139/ssrn.2526341
	R3. Fischer, R., & Klazar, E. (2020). Facts, truth, and post-truth: Access to cognitively and socially just information. *The International Journal of Information, Diversity, & Inclusion*, *4*(3/4), 5–19. https://www.jstor.org/stable/48645282
	R4. Sturino, F. S. (2023). Deepfake technology and individual rights. *Social Theory and Practice*, *49*(1), 161–187. https://www.jstor.org/stable/48747289
	Additional reading: Siwak, J. (2018). Digital communication and agency: Unseen infrastructures that influence our communicative capacities online. *Communicare: Journal for Communication Studies in Africa*, *37*(1), 118-135.
Week 11 (29.04.26)	**Responsible AI: Technological Bias and Justice**
	R1. Himmelreich, J., Lim, D. (2022). AI and structural injustice: Foundations for equity, values, and responsibility. In *The Oxford handbook of AI governance* (pp. 210–231). Oxford University Press. doi: 10.1093/oxfordhb/9780197579329.013.13
	R2. Coeckelbergh, M. (2020). Chapter 9: Bias and the meaning of life. In *AI ethics* (pp. 125-144). The MIT Press.
	R3. Zerilli, J., Danaher, J., Maclaurin, J., Gavaghan, C., Knott, A., Liddicoat, J., & Noorman, M. (2021). Chapter 3: Bias. In *A citizen's guide to artificial intelligence* (pp. 43-60). The MIT Press.
	R4. Russ-Smith, J., & Lazarus, M. D. (2024). Bias in AI: Building the machine to support all life. In *The AI (r)evolution: Valuing country, culture and community*

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	in a World of Algorithms (pp. 48–78). Monash University Publishing. https://doi.org/10.2307/jj.24440854.9 Additional reading: Modi, T. B. (2023). Artificial intelligence ethics and fairness: A study to address bias and fairness issues in AI systems, and the ethical implications of AI applications. *Revista Review Index Journal of Multidisciplinary*, *3*(2), 24-35. https://doi.org/10.31305/rrijm2023.v03.n02.004
Week 12 (06.05.26)	**Responsible AI: Fairness, Accountability, Transparency, and Ethics (FATE)** R1. Lechterman, T. M. (2022). The concept of accountability in AI ethics and governance. In *The Oxford handbook of AI governance* (pp. 164–182). Oxford University Press. doi: 10.1093/oxfordhb/9780197579329.013.10 R2. Zerilli, J., Danaher, J., Maclaurin, J., Gavaghan, C., Knott, A., Liddicoat, J., & Noorman, M. (2021). Chapter 2: Transparency. In *A citizen's guide to artificial intelligence* (pp. **21-30**). The MIT Press. R3. Tasioulas, J. (2022). Artificial Intelligence, Humanistic Ethics. *Daedalus*, 151(2), 232–243. https://www.jstor.org/stable/48662038
Week 13 (13.05.26)	**Robotics and Autonomous Systems** R1. Hevelke, A., & Nida-Rümelin, J. (2014). Responsibility for crashes of autonomous vehicles: An ethical analysis. *Science and Engineering Ethics*, *21*(3), 619–630. https://doi.org/10.1007/s11948-014-9565-5 R2. Wang, H., Khajepour, A., Cao, D., & Liu, T. (2020). Ethical decision making in autonomous vehicles: Challenges and research progress. *IEEE Intelligent Transportation Systems Magazine*, *14*(1), 6–17. https://doi.org/10.1109/mits.2019.2953556 R3. TBD R4. Schwarz, E. (2025). Engineering moral failure?: The challenges of algorithmic ethics for lethal autonomous weapon systems. In T. C. Bächle & J. Bareis (Eds.), *The Realities of Autonomous Weapons* (1st ed., pp. 232–258). Bristol University Press. https://doi.org/10.2307/jj.18323804.18
Week 14 (20.05.26)	**Political Ethics** R1. TBD R2. TBD R3. TBD R4. TBD

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ACADEMIC INTEGRITY

Academic integrity is defined by the International Center for Academic Integrity (ICAI) as "a commitment to six fundamental values: honesty, trust, fairness, respect, responsibility, and courage. By embracing these fundamental values, instructors, students, staff, and administrators create effective scholarly communities where integrity is a touchstone. Without them, the work of teachers, learners, and researchers loses value and credibility. More than merely abstract principles, the fundamental values serve to inform and improve ethical decision-making capacities and behavior. They enable academic communities to translate ideals into action."[1]

The fundamental values for academic integrity[2] are,

Honesty: We must be honest with ourselves and with our academic community, and develop trust.

Trust: We must trust our work and trust others, thus make others trust our work.

Fairness: We must be fair and acknowledge others' efforts, such as those whose ideas we use in our works.

Respect: We must respect ourselves and others in our academic community. Reciprocal respect will lead to the flourishment of knowledge, contribute to active learning and healthy communication, and prevent taking advantage of others.

Responsibility: We must take responsibility for our actions, including our works, and be accountable. This will strengthen the bonds within our academic community. It is required both for our respect to ourselves and for the reciprocal respect between ourselves and others.

Courage: "Being courageous means acting in accordance with one's convictions"[1] and, as members of the academic community, we must have courage in order to trust our works and take the responsibility for our actions. "Only by exercising courage is it possible to create communities that are responsible, respectful, trustworthy, fair, and honest and strong enough to endure regardless of the circumstances they face."[1]

In this course, students are expected to act in line with the values of academic integrity and strictly avoid forms of breaching academic integrity (also referred to as "academic misconduct" or "academic dishonesty") such as plagiarism, recycling or resubmitting work, fabricating information, collusion, exam cheating, contract cheating, impersonation, and unapproved use of digital technologies including AI.[3]

! This course enforces a zero-tolerance policy for behaviours breaching academic integrity, and any such violation will result in a final grade of FF. Students must be aware that copying others' work or presenting someone else's words as their own—whether deliberate or accidental—constitutes plagiarism. This is a serious academic offense with weighty consequences.

> "Ignorance is never an excuse for academic dishonesty." (Academic Integrity at MIT: A Handbook for Students)

Resources on Academic Integrity:
- https://odek.itu.edu.tr/en/code-of-honor/ethics-in-university-life
- https://integrity.mit.edu/
- https://libguides.reading.ac.uk/academicintegrity/about

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[1] International Center for Academic Integrity [ICAI]. (2021). *The Fundamental Values of Academic Integrity* (3rd ed.). https://academicintegrity.org/resources/fundamental-values
[2] A more detailed explanation of each of those fundamental values can be found in the publication mentioned in the previous footnote.
[3] For definitions of those behaviours undermining academic integrity, visit https://www.sydney.edu.au/students/academic-integrity/breaches.html