DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
KATHMANDU UNIVERSITY

Subject: Ethics and Professional Practice **Course Code: AIME 101**
Credit: 3 **F.M: 100**
Type: HAMO

COURSE DESCRIPTION

Artificial Intelligence (AI) poses new ethical questions as it creates opportunities for transformation in society in multiple dimensions. Dominance of AI also can be expected to threaten existing patterns of social relations and distribution of power and redefine our understanding of rights and obligations in every day settings. This course introduces the students with the ethical, societal dimensions of professional practice of/in AI.

OBJECTIVES

1. To equip students with knowledge and skills of professional practice in artificial intelligence
2. To help students understand the challenges underlying the practice of artificial intelligence
3. To familiarize students with the implications of Artificial Intelligence in everyday life

DETAILS

Unit 1: Understanding Ethics [8 hrs.]

- Ethos and ethics
- Normative ethical theories
- Rationale for ethics in everyday life
- Proper object of moral concerns
- Domains of ethics: self, friend, stranger, world
- Gaining moral knowledge
- Elimination of bias
- Moral relativism, moral justification and AI
- Moral agents and moral motivation

Unit 2: Codes of Professional Ethics [10 hrs.]

- Contexts of codes of ethics
- Varieties of ethical codes
- Purposes of codes and statements of principle
- Commonalities in professional codes of ethics
- Relations between professionals, clients and others
- Professional codes of ethics, enforcement, and authority
- Professional codes of ethics and professional values

- Professional autonomy
- Ethics and institutional backing
- Professional values and protection of individuals
- AI, codes of ethics and the law
- Ethical use of data: data privacy concerns and implications of breaches

Unit 3: Artificial Intelligence and Ethics **[15 hrs.]**

- Rationale for ethics in AI
- Current initiatives in AI and ethics
- Approaches to ethical questions in AI
- Epistemic strategies for precision and the reduction of uncertainty
- Technological strategies to ensure safe and beneficial AI
- Moral strategies in the pursuit of beneficial AI
- Focusing in on ethical questions
- Identifying ethical problems as new
- Hype in AI and implications for methodology in ethics
- Impacts of hype on moral thinking
- Adversities and fairness

Unit 4 Artificial Intelligence and Professional Practice **[15 hrs.]**

- AI professional organizations
- Stories from the field: narratives of professionals
- AI and employment
- Gradients of professional power and vulnerability in AI
- Complexity in codes of professional ethics
- Adapting to the behavior of machines
- Developing codes of ethics amidst fast technological change
- Methodology and moral theory in times of change
- Social, cultural, economic and technological change and AI professionals
- Global reach of AI, universalism, and relativism
- Pitfalls in professional ethics of AI
- Idealization of human and of machine agency
- Idealization of moral agency
- Replacing and enhancing human agency, boundaries and AI
- Addressing the increased gradient of vulnerability
- Common language, miscommunication and the search for clarity

BOOKS AND REFERENCES:

Boddington, P. (2017). *Towards a code of ethics for artificial intelligence.* Springer.

Liao, M. S. (2020). *Ethics of artificial intelligence.* Oxford University Press.

Stahl, B. C. (2021). *Artificial intelligence for a better future: An ecosystem perspective on the ethics of AI and emerging digital technologies.* Springer.

Thompson, S. J. (2021). *Machine, law, ethics and morality in the age of artificial intelligence*. IGI Global.

EVALUATION: In-semester: 50 marks; End-semester: 50 marks