

# ARTIFICIAL INTELLIGENCE (ARIN)

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## **ARIN 101 Artificial Intelligence in Society Units: 3.00**

A non-technical overview of what artificial intelligence is (and isn't) and how it affects society. "Algorithms" in social media and elsewhere. Generative AI. Bias, fairness, and ethics. Social, legal and commercial aspects. Public perceptions and reactions. A brief history and the potential future.

**Learning Hours:** 120 (36 Lecture, 84 Private Study)

**Requirements:** Prerequisite None.

**Offering Faculty:** Faculty of Arts and Science

### **Course Learning Outcomes:**

1. Assess current media reporting about AI, especially basic uses, capabilities, and limitations of AI.
2. Situate current AI systems within a broader historical and social context.
3. Critically assess current controversies in the uses and effects of AI.

## **ARIN 201 Ethics and Fairness in Artificial Intelligence Units: 3.00**

A thorough investigation of the complex ethical and fairness conundrums raised by artificial intelligence, such as: Who is responsible when AI causes harm? Must we give up privacy to get technological innovation? Is automated decision-making fair? What causes social media echo chambers? Can tech companies be effectively regulated? How can we prevent unethical AI from being built? Explores more intricate ethical theories, cutting-edge technology, and useful techniques for developing morally sound AI solutions.

**Learning Hours:** 120 (36 Lecture, 84 Private Study)

**Requirements:** Prerequisite (Level 2 or above and a minimum grade of C- in ARIN 101/3.0) or permission of the School.

**Offering Faculty:** Faculty of Arts and Science

### **Course Learning Outcomes:**

1. Analyze issues of ethics and fairness in AI, including implementations and applications.
2. Evaluate articles, reporting, and other sources for ethics in AI.
3. Communicate effectively in writing, discussing, and presenting ethical issues in AI.
4. Assess ethical consequences of AI.

## **ARIN 210 Applications of Artificial Intelligence Units: 3.00**

Embark on a comprehensive journey through the dynamic landscape of artificial intelligence. Uncover the power of natural language processing and computer vision. Dive into ethical considerations and explore AI's impact in various domains. Engage in hands-on projects to master cutting-edge AI techniques and technologies, forging a path toward innovative solutions for real-world challenges.

**Learning Hours:** 120 (36 Lecture, 84 Private Study)

**Requirements:** Prerequisite Level 2 or above and a minimum grade of C- in both ARIN 101/3.0 and COGS 100/3.0.

**Offering Faculty:** Faculty of Arts and Science

### **Course Learning Outcomes:**

1. Demonstrate an understanding of fundamental AI concepts and applications.
2. Apply AI algorithms in real-world scenarios.
3. Design, develop, and assess AI-driven solutions to example problems.
4. Clearly convey AI concepts, methodologies, and outcomes to a non-technical audience.