

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING (AIML)

Artificial Intelligence and Machine Learning Undergraduate Courses

AIML 1870 NEXT-GEN SOFTWARE DEVELOPMENT: INTELLIGENT COLLABORATION WITH LARGE LANGUAGE MODELS (3 credits)

Large Language Models (LLMs) are revolutionizing how software is developed by shifting the focus from mastering syntactic details of programming languages to crafting high-level specifications and robust validation/testing strategies. While this new paradigm simplifies certain aspects of development, a foundational understanding of programming languages and systems remains essential. This course embraces an LLM-centric approach to software development. This involves prompt engineering, interpreting AI-generated code, and iteratively debugging and refining software solutions.

Prerequisite(s): College Algebra or equivalent, EDL 2590. Not open to non-degree graduate students.

AIML 2060 CONCEPTS OF ARTIFICIAL INTELLIGENCE (3 credits)

The course will introduce students to the foundational concepts and elements of techniques in Artificial Intelligence (AI), including representation, heuristic search, automated problem-solving, decision-making, and machine learning. Students will study the history of AI and the lessons learned from it, as well as a range of real-world applications in which AI is currently used. Assignments will enable students to get a feel for AI techniques. This course will be the first contact with AI concepts in the AIML program and it will provide a broad overview of the areas of AI. It will be open for CS students as an elective.

Prerequisite(s): CSCI 1620 (with a grade of C or better) and MATH 1950 (with a grade of C or better); Co-requisite: CSCI 2030

AIML 4970 ARTIFICIAL INTELLIGENCE CAPSTONE PROJECT (3 credits)

The Capstone Project completes the undergraduate experience of an Artificial Intelligence major. Students will develop a real-world AI-based system or conduct supervised research in an area of AI, applying fundamental artificial intelligence concepts, practices and principles as required by the problem.

Prerequisite(s): Not open to non-degree graduate students.