COURSE SYLLABUS

Research Methods III

2526-134R-3

Title

Research Methods III

Teacher

Navid Nobani

Language

English

Short description

In this course, students will explore the fundamentals and applications of Artificial Intelligence (AI) and Machine Learning (ML). Starting with an introduction to AI concepts and progressing through data roles, ML models, and key ML tasks like regression and classification, the curriculum covers both theoretical and practical aspects. Students will learn about different machine learning paradigms, including supervised and unsupervised learning, and delve into algorithm families such as tree-based methods and neural networks. Practical Python examples are provided throughout, and students will have access to online repositories for hands-on learning. The course concludes with a focus on practical ML applications in fields like natural language processing and image analysis, and a segment on Explainable AI (XAI), emphasizing the importance of ethical AI practices. This streamlined

course aims to provide a comprehensive understanding of AI and ML, with a focus on their practical implications across various industries.

Target audience

Maximum number of participans

Assessment method

Short Essay

CFU / Hours

12 hours

Teaching period and mode

December 2025, Online/in-presence

Sustainable Development Goals

QUALITY EDUCATION