

UNIVERSITY DIPLOMA IN ARTIFICIAL INTELLIGENCE

Main Language of Instruction:French ☐ English ☒ Arabic ☐**Campus Where the Program Is Offered:** CST**OBJECTIVES**

The UD in Artificial Intelligence aims to equip graduates from all academic and professional backgrounds with the knowledge and skills needed to understand and apply Artificial Intelligence (AI) and Machine Learning (ML) within their respective fields. Open to all graduates regardless of their technical background, the program combines foundational concepts in AI, cloud computing, generative and conversational AI, AI in industry, and AI ethics with hands-on, expert-led training and a final capstone project, enabling learners to confidently integrate AI into domains such as healthcare, education, law, finance, business, and beyond.

PROGRAM LEARNING OUTCOMES (COMPETENCIES)

- Design an artificial intelligence (AI)-powered system
- Identify, formulate and solve an AI problem
- Use modern techniques, skills, and tools

ADMISSION REQUIREMENTS

- A three-year university degree (Bac+3) in any technical or non-technical field
- Proficiency in English, as the program is taught in English
- Applications must be submitted through the online platform (<https://enquetes.usj.edu.lb/index.php/573136>)

PROGRAM REQUIREMENTS**30 Credits: Required Courses (20 credits), Institution's Elective Courses (10 credits)****Required Courses (20 Cr.)**

Introduction to Artificial Intelligence (4 Cr.), AI on the Cloud (4 Cr.), Generative and Conversational AI (4 Cr.), AI in Industry (4 Cr.), AI Ethics and Society (4 Cr.).

Institution's Elective Courses (10 Cr.), to be chosen from the list below:

Low-Code/No-Code AI Development (10 Cr.), Python Programming for AI (10 Cr.).

COURSE DESCRIPTION

020INAIF1	Introduction to Artificial Intelligence	4 Cr.
This course provides a broad introduction to Artificial Intelligence and its applications across diverse domains. Students will explore the history and evolution of AI and become familiar with its core concepts, terminology, and underlying techniques. The course also introduces the ethical and societal implications of AI, laying the groundwork for the more specialized courses that follow. Designed for participants from all backgrounds, it requires no prior technical experience and prepares students to engage confidently with AI throughout the program.		
020CLAIF1	AI on the Cloud	4 Cr.
This course introduces the fundamentals of cloud computing and its role in deploying and scaling modern AI solutions. Students will learn to identify the major cloud service providers and their offerings, and to understand cloud infrastructure, services, and security considerations. The course provides hands-on experience deploying AI workloads on the cloud and explores the wide range of ready-to-use AI tools and services available on leading cloud platforms, enabling learners to leverage cloud resources effectively for their own AI projects.		

020GNAIF1	Generative and Conversational AI	4 Cr.
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This course explores the principles and applications of generative and conversational AI. Students will learn to use leading generative AI tools and to design generative AI solutions for a variety of tasks. The course aims to help students understand the fundamentals behind chatbots powered by natural language processing (NLP) and machine learning (ML), their deployment on popular platforms, and the practice of prompt engineering, with practical applications to conversational systems such as ChatGPT or Claude.ai. By the end of the course, students will be able to design, build, and deploy generative and conversational AI solutions tailored to their needs.

020AIIYF1	AI in Industry	4 Cr.
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This course surveys the practical applications of AI across a broad range of industries and professional domains, including healthcare, education, business, finance, and law. Students will examine how AI-powered processes support decision-making, enhance efficiency, and drive innovation and entrepreneurship within organizations. Through sector-specific examples and case studies, enriched by guest interventions from specialists in various fields, students will gain an understanding of how AI can be adapted and deployed to address concrete challenges within their own areas of activity.

020ETAIF1	AI Ethics and Society	4 Cr.
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This course examines the ethical, social, and regulatory dimensions of Artificial Intelligence and its growing influence on society. Students will explore the ethical considerations that arise throughout the development and deployment of AI systems, including questions of bias, fairness, transparency, and accountability. The course analyzes the impact of AI on work, privacy, and education, and introduces the principles of AI governance and current regulatory frameworks. Through discussion and real-world case studies, students will develop a critical awareness of both the opportunities and the risks of AI and reflect on its long-term implications for the future of humanity.

020NCAIF1	Low-Code/No-Code AI Development	10 Cr.
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This course enables students to build and deploy AI solutions without traditional programming, using low-code and no-code development platforms. Students will learn to design AI-powered applications through visual workflows and drag-and-drop interfaces, and to deploy and integrate these solutions within real-world environments. Intended for participants without a programming background, the course culminates in a capstone project in which each student designs and implements an AI-powered business process automation system using a low-code platform, applying the skills acquired throughout the program to their own professional context.

020PYAIF1	Python Programming for AI	10 Cr.
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This course equips students with the programming skills needed to develop AI solutions in Python. Students will learn to write Python programs and to apply AI algorithms using appropriate data structures. The course covers data analysis with libraries such as NumPy, Pandas, and Matplotlib, as well as the implementation of machine learning solutions using frameworks including Scikit-learn, Keras, TensorFlow, and PyTorch. Intended for participants with a programming aptitude, the course culminates in a capstone project in which each student designs and implements an AI-powered chatbot using Python and suitable machine learning libraries.