University of Warith Al-Anbiyaa
جامعة وارث الانبياء

First Cycle – Four Levels – 240 ECTS
Bachelor's Degree (B.Sc.) – Artificial Intelligence

الدورة الأولى - بكالوريوس علوم الذكاء الاصطناعي– أربع سنوات – ٢٤٠ وحدة اوربية

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1. Vision & Mission Statement

1.1 Vision Statement | الرؤية

To be a distinguished Artificial Intelligence program in Iraq and the region, recognized for academic excellence, advanced research, and producing highly qualified graduates capable of developing intelligent systems, supporting digital transformation, and contributing to sustainable technological and scientific development.

أن يكون برنامج علوم الذكاء الاصطناعي برنامجًا متميزًا على مستوى العراق والمنطقة، معروفًا بالتميز الأكاديمي والبحثي، وإعداد خريجين مؤهلين قادرين على تطوير الأنظمة الذكية ودعم التحول الرقمي والمساهمة في التنمية التكنولوجية المستدامة.

1.2 Mission Statement | الرسالة

The Artificial Intelligence Department is committed to:

• Providing high-quality undergraduate education in Artificial Intelligence in accordance with international academic standards and the Bologna Process framework.

• Developing students' analytical thinking, programming competence, and research skills through modern teaching methodologies, laboratories, and project-based learning.

• Supporting scientific research and innovation in AI, machine learning, data science, and emerging intelligent technologies.

• Preparing graduates with the technical and professional skills required for careers in AI development, data analysis, intelligent systems, and related computing fields.

2. Program Goals

• Ensure graduates acquire solid foundations in Artificial Intelligence, computer science, and mathematics aligned with national and international standards.
• Develop students' problem-solving, analytical, and research capabilities through practical laboratories and applied AI projects.
• Enable students to design, implement, and evaluate intelligent systems using modern tools and programming languages.
• Promote ethical, professional, and responsible use of Artificial Intelligence technologies in society.
• Support innovation and sustainable development through AI-driven solutions.

3. Program Specification Overview

Programme code:	BSc-AI	**ECTS**	240
Duration:	4 levels, 8 Semesters	**Method of Attendance:**	Full Time

The Bachelor of Science in Artificial Intelligence is a four-year undergraduate program fully aligned with the Bologna Process framework, comprising 240 ECTS credits distributed across eight semesters. The program adopts the European Credit Transfer and Accumulation System (ECTS), where one ECTS corresponds to 25 hours of total student workload, including lectures, laboratories, self-study, projects, and assessments.

Level 1 introduces students to foundational knowledge in computer science, programming, mathematics, and basic AI concepts, providing a solid base for progression within the program.

Level 2 covers core AI subjects and supporting disciplines, preparing students for advanced and research-oriented modules in Levels 3 and 4. At advanced levels, students focus on specialized areas such as machine learning, deep learning, data science, intelligent systems, computer vision, natural language processing, and AI ethics.

The curriculum is designed to ensure progressive learning, with approximately 50% of the total credits allocated to core Artificial Intelligence modules, 20% to supporting and elective modules, and 30% dedicated to practical and applied learning through laboratories, projects, case studies, and the graduation project.

4. Program Learning Outcomes

4.1 Knowledge and Understanding (K)

K1. Demonstrate comprehensive knowledge of Artificial Intelligence principles, algorithms, and intelligent system architectures.

K2. Explain the fundamentals of machine learning, deep learning, data science, and knowledge representation.

K3. Describe AI applications across domains such as healthcare, finance, robotics, and cybersecurity.

K4. Understand ethical, legal, and societal implications of Artificial Intelligence technologies.

4.2 Intellectual / Cognitive Skills (C)

C1. Analyze complex problems and formulate AI-based solutions.

C2. Evaluate AI models and algorithms using appropriate performance metrics.

C3. Apply critical thinking to interpret experimental results and research findings.

C4. Design intelligent systems and make evidence-based technical decisions.

4.3 Practical and Professional Skills (P)

P1. Develop AI applications using modern programming languages and frameworks.

P2. Implement machine learning and deep learning models on real-world datasets.

P3. Use AI tools, libraries, and platforms effectively for analysis and deployment.

P4. Apply professional standards and ethical guidelines in AI development.

4.4 General and Transferable Skills (T)

T1. Communicate technical AI concepts clearly in written and oral forms.

T2. Work independently and collaboratively within multidisciplinary teams.

T3. Employ modern computing tools for problem-solving and lifelong learning.

T4. Demonstrate adaptability, self-learning, and continuous professional development.

5. Academic Staff

Dr. Mahmood Jasim Khalsan

Ph.D. in Information Technology – Artificial Intelligence
Email: mahmood.jasim@uowa.edu.iq

Dr. Abdulkareem Zwayn Mohammed

Ph.D. in Computer Science – Artificial Intelligence
Email: abdulkareem.zouine@uowa.edu.iq

Karar Sadiq Mohsen

M.Sc. in Information Technology
Email: karar.sadeq@uowa.edu.iq

Ali Mahmoud Ali

M.Sc. in Computer Science – Artificial Intelligence
Email: ali.mahmoud@uowa.edu.iq

Elaf Ali Safooq

M.Sc. in Mathematics
Email: elaf.ali@uowa.edu.iq

6. Credits, Grading and GPA

Credits

University of Warith Al-Anbiyaa is following the Bologna Process with the European Credit Transfer System (ECTS) credit system. The total degree program number of ECTS is 240, 30 ECTS per semester. 1 ECTS is equivalent to 25 hrs. student workload, including structured and unstructured workload.

Grading

Before the evaluation, the results are divided into two subgroups: pass and fail. Therefore, the results are independent of the students who failed a course. The grading system is defined as follows:

GRADING SCHEME مخطط الدرجات				
Group	**Grade**	التقدير	**Marks (%)**	**Definition**
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 – 49)	FX – Fail	راسب - قيد المعالجة	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				

Note: Marks with Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

ملاحظة: سيتم تقريب العلامات العشرية التي تزيد أو تقل عن ٠.٥ إلى العلامة الكاملة الأعلى أو الأدنى (على سبيل المثال، سيتم تقريب علامة ٥٤.٥ إلى ٥٥، بينما سيتم تقريب علامة ٥٤.٤ إلى ٥٤). لدى الجامعة سياسة لا تسمح بـ "حالات الرسوب القريبة من النجاح"، لذا فإن التعديل الوحيد للعلامات الممنوحة من قبل المصححين الأصليين سيكون التقريب التلقائي الموضح أعلاه.

Calculation of the Cumulative Grade Point Average (CGPA)

1. The CGPA is calculated by the summation of each module score multiplied by its ECTS, all are divided by the program total ECTS.

   CGPA of a 4-year B.Sc. degree:

   CGPA = [(1st module score x module ECTS) + (2nd module score x module ECTS) + (3rd module score x module ECTS) + … + (last module score x module ECTS)] / 240

7. Curriculum/Modules

Semester 1 | 30 ECTS | 1 ECTS = 25 hr.

Code	Module	SSWL	USSWL	ECTS	Type	Prerequisite
AI1101	Introduction to Artificial Intelligence (AI)	48	102	6.00	C	N/A
CSIT1102	Mathematics	48	102	6.00	B	N/A
AI1102	Programming Basics	93	132	9.00	C	N/A
AI1103	Computer Technology	63	69	5.00	C	N/A
UOWA105	English Language I	33	17	2.00	S	N/A
UOWA005	Democracy and human rights	33	17	2.00	S	N/A

Semester 2 | 30 ECTS | 1 ECTS = 25 hr.

Code	Module	SSWL	USSWL	Type	ECTS	Prerequisite
AI1201	Discrete Mathematics	48	102	B	6.00	N/A
AI1202	Structured Programming	123	77	C	8.00	N/A
AI1203	Logic Design	93	57	C	6.00	N/A
AI1204	Data Science	93	57	C	6.00	N/A
UOWA101	Arabic Language I	33	17	S	2.00	N/A
UOWA103	The Crimes of the Defunct Ba'ath Party	33	17	S	2.00	N/A

Semester 3 | 30 ECTS | 1 ECTS = 25 hr.

Code	Module	SSWL	USSWL	Type	ECTS	Prerequisite
AI2101	Knowledge Representation	48	102	C	6.00	N/A
AI2102	Numerical Analysis	63	37	B	4.00	N/A
AI2103	Basics of Object Oriented Programming	108	67	C	7.00	N/A
AI2104	Computational Theory	78	47	C	5.00	N/A
AI2105	Python Programming Language	78	47	C	5.00	N/A
AI2106	AI Applications	48	27	C	3.00	N/A

Semester 4 | 30 ECTS | 1 ECTS = 25 hr.

Code	Module	SSWL	USSWL	Type	ECTS	Prerequisite
AI2201	Advanced Object-Oriented Programming	93	82	C	7.00	N/A
AI2202	Algorithms and Data Structures	78	72	C	6.00	N/A
AI2203	Machine Learning Basics	93	57	C	6.00	N/A

AI2204	Artificial Intelligence Algorithms	93	82	C	7.00	N/A
UOWA102	Arabic Language II	33	17	S	2.00	N/A
UOWA105	English Language II	33	17	S	2.00	N/A

8. Contact

Program Manager:
Program Manager: Asst. Lecturer Ali Mahmoud Ali
M.Sc. in Computer Science – Artificial Intelligence
Email: ali.mahmoud@uowa.edu.iq
Mobile: 07823834009