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JUMEIRA UNIVERSITY

College of Computing & Information Technology

Bachelor of Science in Computer Science

Concentration in Artificial Intelligence

AI-Embedded · Triple Certified · CAA Accredited · 100% Internship Guarantee

Building the Next Generation of AI Innovators, Architects, and Technology Leaders

Programme Snapshot

120	4	CAA	AI	100%
Credit Hours	Years	Accredited	Embedded	Internship

Dubai, United Arab Emirates | www.ju.ac.ae

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Welcome to the Future of Artificial Intelligence

A Message from the Faculty

We are living through the most significant technological transformation in human history. Artificial Intelligence is no longer a future aspiration — it is the defining technology of the present economy. Every industry, every profession, every organisation on the planet is being reshaped by intelligent systems that learn, predict, automate, and generate. The professionals who design, deploy, and govern these systems are among the most sought-after in the world — and the most consequential.

Jumeira University's Bachelor of Science in Computer Science with a Concentration in Artificial Intelligence was designed for this moment. It is a programme that goes far beyond teaching you about AI — it trains you to build it, to apply it, and to lead with it. From your first semester, you will engage with the foundational mathematics, algorithms, and programming that power intelligent systems. By the time you graduate, you will hold a CAA-accredited degree, a portfolio of industry and AI certifications, verified hands-on project experience, and the professional readiness that employers across the UAE, GCC, and globally are actively recruiting for.

Artificial intelligence is the career of a generation. Jumeira University is where that career begins.

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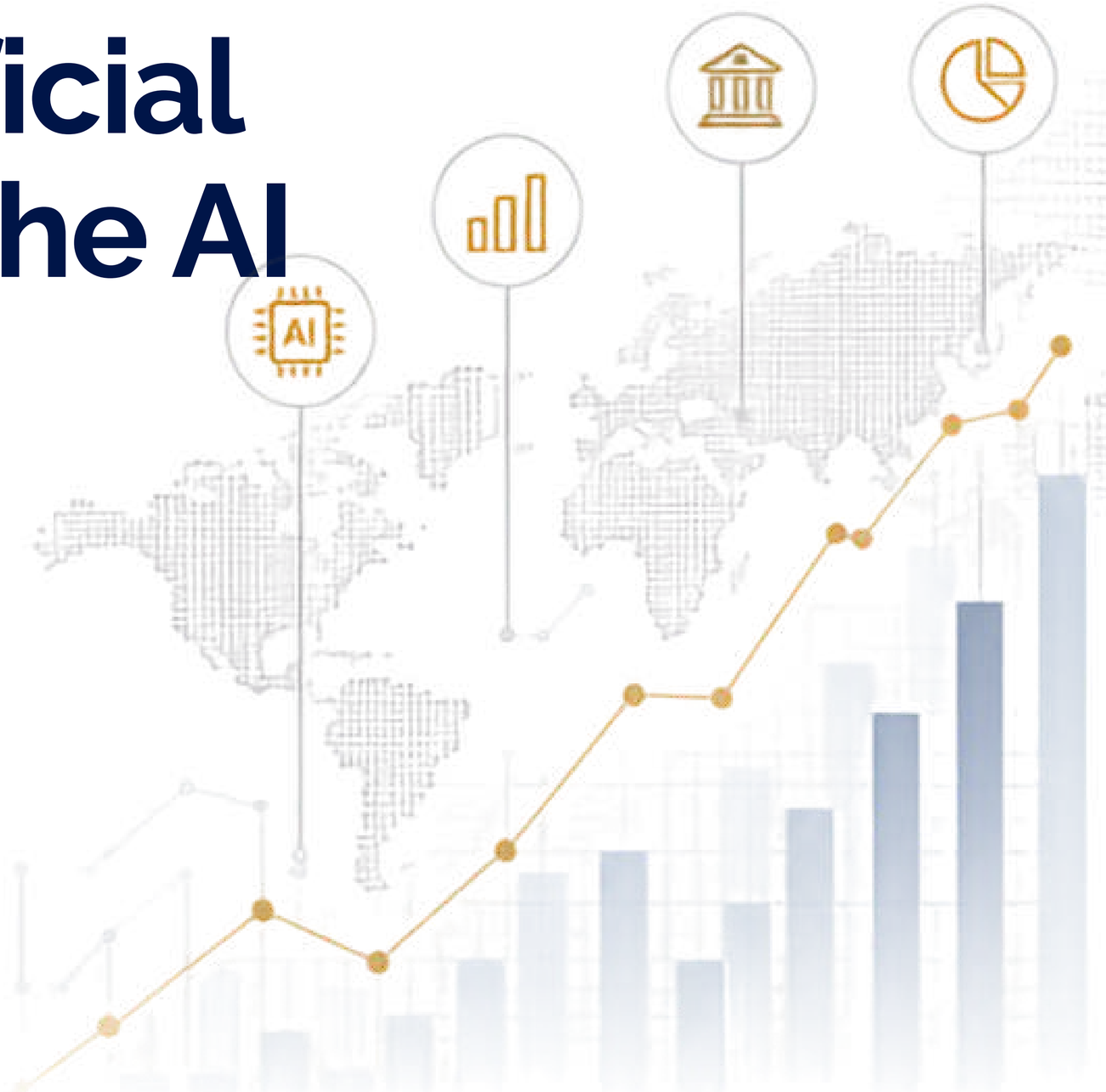
Why Study Artificial Intelligence in the AI Economy?



The Intelligent Systems Revolution Has Arrived

By 2030, AI is projected to contribute more than $15 trillion to the global economy. Every major sector — from healthcare and finance to government, retail, and logistics — is investing at scale in intelligent systems, automation platforms, and machine learning infrastructure. The professionals capable of building and governing these systems are the defining talent priority of the decade.

The AI Transformation

Generative AI, large language models, computer vision, and autonomous systems are moving from research labs into every corner of the economy. Machine learning powers recommendation engines, fraud detection, medical diagnosis, supply chain optimisation, and real-time decision support. The engineers and architects behind these systems are the most in-demand technology professionals on the planet.

The Future Workforce

The World Economic Forum identifies AI and Machine Learning Specialists as the single fastest-growing professional category globally. In the UAE and GCC, the National AI Strategy 2031, UAE Vision 2031, and Smart Government initiatives are creating sustained, multi-decade demand for AI graduates across public and private sectors at every career level.

What This Means for You

Traditional technology professionals build applications. AI professionals build systems that learn, predict, generate, and improve over time. They design the neural networks that power autonomous vehicles, the NLP systems that underpin virtual assistants, the computer vision models that transform medical imaging, and the reinforcement learning agents that optimise everything from logistics networks to financial portfolios. Jumeira University's BSc Artificial Intelligence programme prepares you to build exactly these systems.

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Capability Framework

What You Will Be Able to Do

Machine Learning	Supervised, unsupervised, and reinforcement learning models for real-world prediction and optimisation
Deep Learning	Neural networks — CNNs, RNNs, Transformers — for image recognition, language processing, and intelligent automation
Computer Vision	AI systems that interpret and understand visual data for applications from medical imaging to autonomous navigation
Natural Language Processing	Language models, chatbots, sentiment analysis systems, and text intelligence tools powered by AI
Generative AI	Systems that generate text, images, code, and synthetic data — the frontier of modern AI application
Intelligent Automation	AI-powered workflow automation, agent systems, and decision support tools that transform organisational operations
Virtual & Augmented Reality	Immersive AI-enhanced experiences combining spatial computing with intelligent system capabilities

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Programme Overview

BSc Computer Science — Artificial Intelligence Concentration

The Bachelor of Science in Computer Science with a Concentration in Artificial Intelligence at Jumeira University is a rigorous, 120-credit-hour undergraduate programme that builds the most in-demand technology skill set of the modern economy. Fully accredited by the Commission for Academic Accreditation (CAA), the programme combines deep computer science foundations with a specialist AI concentration spanning six dedicated courses: Introduction to Artificial Intelligence, AI and Deep Learning, Computer Vision, Automata Languages and Computation, Virtual and Augmented Reality, and Machine Intelligence Systems.

The programme is built on the understanding that AI professionals of the future must be more than users of existing tools — they must be designers of intelligent systems. Students develop the mathematical, computational, and algorithmic foundations that underpin AI, while simultaneously acquiring the practical skills to build, train, deploy, and evaluate real AI systems across diverse application domains.

Every dimension of the programme is enhanced by AI integration through adaptive learning, three-tier AI literacy certification, industry certifications embedded across four years, and guaranteed internship placement. Graduates leave with a complete professional launch package — a degree, certifications, project portfolio, and internship experience — designed for the AI-powered technology economy.

Degree
Bachelor of Science in Computer Science (BSc)

Concentration
Artificial Intelligence

Accreditation
Commission for Academic Accreditation (CAA)

Duration
4 Years | Full-Time

Credit Hours
120 Credit Hours

Location
Dubai, UAE | www.ju.ac.ae

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Why Choose BSc Artificial Intelligence at JU ?

Six Reasons This Programme Stands Apart

Our BBA Accounting & Finance degree is designed to empower future-ready finance leaders with AI fluency, global credentials, real-world experience, and industry alignment — preparing you to lead in the intelligent finance era.

Deep AI Specialisation 01

Six dedicated AI concentration courses spanning Deep Learning, Computer Vision, Machine Intelligence Systems, Virtual & Augmented Reality, and Automata Theory — providing technical depth that general computer science programmes simply cannot match.

Triple Certification 02

Students graduate with three credential layers: a CAA-accredited BSc degree, globally recognised AI and technology certifications, and AI literacy certifications — creating an employer-ready profile that signals professional readiness, reduces onboarding cost, and accelerates hiring decisions.

100% Guaranteed Internship 03

Every eligible student receives internship opportunities through JU's industry ecosystem — providing real-world AI application experience in UAE organisations before graduation. The CS Internship (CG 490) is a formal programme requirement, not a best-effort commitment.

Real-World Project Experience 04

Students work on live AI challenges, machine learning competitions, computer vision projects, NLP applications, and global innovation challenges — building a professional portfolio of real AI work before graduation. Employers across the UAE and GCC find this practical evidence decisively compelling.

CAA-Accredited & ACM/IEEE Aligned 05

The curriculum aligns with ACM/IEEE/AAAI recommendations for AI education and is fully approved by the Commission for Academic Accreditation. It is regularly updated in collaboration with industry to reflect the current state of AI research, tools, and employer requirements.

The Dubai Advantage 06

Studying AI in Dubai means studying it in one of the world's most AI-ambitious economies — home to the UAE National AI Strategy 2031, the world's first Minister of AI, GITEX Global (the world's largest technology event), and a rapidly expanding ecosystem of AI-first startups and global technology companies.

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The Future of Artificial Intelligence

The Future of Artificial Intelligence

The convergence of exponentially increasing compute power, unprecedented volumes of training data, breakthrough model architectures, and aggressive commercial investment is producing an AI capability trajectory unlike anything in the history of technology. The graduates who will shape this trajectory — and the organisations that will benefit from it — are being defined right now.

Emerging Role	What It Requires	AI-Enhanced Dimension
AI Engineer	ML frameworks + software engineering + deployment expertise	Building production AI systems that power real-time organisational intelligence
Generative AI Specialist	LLMs + prompt engineering + fine-tuning + RAG systems	Designing and deploying generative AI applications across business domains
Computer Vision Engineer	CNNs + image processing + object detection + edge deployment	Building visual AI systems for healthcare, autonomous systems, and smart infrastructure
NLP / Conversational AI Specialist	Language models + dialogue systems + semantic search	Creating intelligent language interfaces that power enterprise communication
AI Solutions Architect	System design + cloud AI + MLOps + enterprise integration	Designing end-to-end AI architectures that scale across organisations
AI Ethics & Governance Specialist	Responsible AI + bias auditing + regulatory compliance	Ensuring AI systems operate ethically, transparently, and within regulatory frameworks

GCC & Global Market Demand

The UAE's National AI Strategy 2031 targets making the UAE the world's premier AI hub. Saudi Arabia's Public Investment Fund is committing hundreds of billions to AI infrastructure. Qatar's national development programme prioritises AI capability across every government ministry. The GCC is executing the world's most ambitious AI economy transformation — and JU graduates are positioned to lead it from the front.

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Triple Certification Advantage

Three Credential Layers. One Decisive Employability Edge.

A standard university degree is no longer sufficient preparation for the competitive UAE and GCC graduate technology market. Leading AI employers expect graduates to arrive with validated, tool-specific competencies that signal they can contribute from Day 1. JU's Triple Certification framework ensures every BSc AI graduate enters recruitment with three credential layers that create a uniquely compelling professional profile.

01

Credential 01 —

Accredited Academic Degree

Bachelor of Science in Computer Science
Artificial Intelligence Concentration

CAA Accredited **120 Credit Hours** **4 Years**

02

Credential 02 —

Industry Certifications

Globally recognised AI, cloud, data science, and technology certifications earned progressively across four years

03

Credential 03 —

AI & Future Skills Certifications

Three-tier AI Literacy Programme certifications from Beginner through Advanced — the AI credentials that increasingly determine hiring decisions

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AI-Embedded Learning Ecosystem

At Jumeira University, AI integration in the BSc Artificial Intelligence programme is foundational — embedded into every dimension of how students learn, how they are assessed, and how they apply their knowledge in professional AI contexts. Graduates do not merely know about AI in theory; they have practised building and working with AI systems throughout their entire four-year academic journey.

How AI Transforms Your Learning Journey

AI Across the Learning Experience

- Adaptive learning pathways that adjust content difficulty and pacing based on individual student performance in AI, programming, and mathematics modules.
- AI-powered intelligent tutoring systems supplementing faculty support in machine learning, deep learning, computer vision, and mathematical foundations.
- Real-time learning analytics dashboards enabling faculty to monitor comprehension and engagement at individual and cohort level across technical AI content.
- AI-generated problem sets, code review aids, and personalised revision tools tailored to each concentration module's learning outcomes.
- NLP-powered academic writing tools supporting research communication and accessibility for all students.
- Guest AI practitioners from Dubai's technology, healthcare, government, and finance sectors delivering applied AI sessions aligned to concentration courses.

Three-Tier AI Literacy Programme

Tier 1

Beginner

Target: Year 1

AI fundamentals, responsible AI, AI ethics, AI in daily life and professional contexts, UAE AI policy and governance.

Tier 2

Intermediate

Target: Year 2

Prompt engineering, AI tools in technical disciplines, critical evaluation of AI system outputs, applied AI in computing contexts.

Tier 3

Advanced

Target: Years 3–4

AI model design concepts, AI-driven research, building AI-augmented solutions, AI leadership and responsible deployment.

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AI Learning Technology Exposure

The programme provides structured exposure to the full spectrum of modern AI technologies — not as additional academic courses, but through labs, bootcamps, workshops, and projects that complement the approved curriculum:

Core AI Technologies

- Machine Learning
- Deep Learning
- Neural Networks
- Reinforcement Learning
- Generative AI
- Large Language Models

Applied AI Domains

- Computer Vision
- NLP
- Intelligent Automation
- AI Agents
- Recommendation Systems
- Predictive Intelligence

Responsible AI & Governance

- AI Ethics
- Responsible AI
- AI Governance
- Bias Auditing
- Explainability
- Regulatory Frameworks

AI Development Tools

- Python for AI
- TensorFlow
- PyTorch
- Jupyter
- Hugging Face
- OpenCV
- scikit-learn

Cloud & AI Platforms

- Azure AI
- Google Cloud AI
- AWS AI/ML
- MLOps Platforms
- AutoML
- AI API Ecosystems

Emerging AI Technologies

- AI Agents
- XR & Spatial AI
- Edge AI
- Federated Learning
- Prompt Engineering
- AI Product Development

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Industry Certifications & Career Accelerators

A Certification Portfolio That Employers Recognise

Alongside the BSc degree, Jumeira University BSc AI students build a portfolio of industry-recognised professional certifications that validate their practical AI skills to employers. These certifications are embedded career accelerators — aligned to the four-year academic journey at appropriate milestones.

Certification Option	Focus Area	Year / Stage	Employer Value
Python for AI & Machine Learning Certificate	AI Programming	Year 2	Core technical credential validating Python proficiency in AI development contexts — a baseline requirement for AI roles
Machine Learning Foundations Certificate	ML & Statistical AI	Year 2	Confirms understanding of supervised, unsupervised, and reinforcement learning — the conceptual foundation all AI roles require.
Deep Learning Fundamentals Certificate	Neural Networks	Year 3	Validates proficiency with neural network architectures — CNNs, RNNs, Transformers — the engines of modern AI systems.
Microsoft Azure AI Fundamentals (AI-900)	Cloud AI Platforms	Year 3	Globally recognised Microsoft AI credential — widely required for AI roles in enterprise and government organisations.
Google Cloud AI & ML Certificate	Cloud AI Development	Year 3	Validates practical AI development capability on Google's AI platform — increasingly standard in UAE technology organisations.
Generative AI Professional Certificate	GenAI & LLMs	Year 3	Specialised credential in generative AI, prompt engineering, and LLM application development — the highest-demand AI skill of the current era.
Responsible AI & Ethics Certificate	AI Governance	Year 4	Validates understanding of AI ethics, bias auditing, explainability, and regulatory compliance — increasingly required by enterprise AI teams.
AI Literacy Certificate — Beginner	AI Foundations	Year 1	Awarded on completion of Tier 1 AI Literacy Programme.
AI Literacy Certificate — Intermediate	Applied AI	Year 2	Awarded on completion of Tier 2 AI Literacy Programme
AI Literacy Certificate — Advanced	AI Leadership	Years 3–4	Awarded on completion of Tier 3 AI Literacy Programme — a differentiating credential at senior AI level.
Employer Readiness Certification	Full Career Preparation	Year 4 / Graduation	Awarded on completion of all employability requirements: internship, bootcamps, and career readiness modules.

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Real-Time Global Project Experience

A Professional Portfolio Built Before Graduation

AI Project-Based Learning Activities

- UAE AI Innovation Projects: Students apply machine learning, computer vision, and NLP to real UAE business and government challenges — generating the AI-powered solutions that UAE employers are actively prioritising.
- Machine Learning Competitions: Structured ML challenges using real-world datasets, building predictive models and evaluating performance using industry-standard metrics and evaluation frameworks.
- Computer Vision Applications: End-to-end computer vision projects spanning image classification, object detection, and visual search — applied to domains from healthcare imaging to smart city infrastructure.
- Natural Language Processing Projects: Building language models, sentiment analysis systems, chatbots, and text intelligence applications that address real business communication challenges.
- Generative AI Solution Development: Projects applying generative AI tools and LLM APIs to real industry use cases — producing the AI-augmented application outputs that modern employers value most.
- AI Innovation Hackathons: Time-bound innovation challenges where teams design and prototype AI solutions to real-world problems — simulating the high-pressure, collaborative environments of AI product development.
- Global Virtual AI Research Challenges: Through international partner networks, students collaborate across countries on live AI research and development challenges with cross-border teams.
- AI Business Transformation Projects: Applying AI systems to real organisational challenges across finance, healthcare, retail, and government — developing the sector-specific AI application expertise employers demand

Future Skills AI Bootcamps

Bootcamp	Year	Content
AI Foundations & Programming Bootcamp	Year 1–2	Introduction to Python for AI, Jupyter environments, ML fundamentals, and AI tool literacy.
Machine Learning & Deep Learning Bootcamp	Year 2–3	Hands-on practice with ML algorithms, neural network training, and model evaluation frameworks.
Generative AI & Cloud Platforms Bootcamp	Year 3	Applied generative AI development, prompt engineering, LLM APIs, and cloud AI deployment.
AI Career Accelerator Bootcamp	Year 4	AI portfolio development, technical interview preparation, LinkedIn strategy, and employer engagement.

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100% Guaranteed Internship OpportunitY

Every Eligible Student. Every Year. No Exceptions.

Every eligible student is provided with internship opportunities through JU's industry ecosystem, ensuring practical AI workplace exposure and industry alignment prior to graduation. This is not an aspiration — it is a commitment.

The CS Internship (CG 490) is a formal 3-credit-hour programme requirement completed after 90 credit hours. It is fully supported by JU's industry partnerships team and career services infrastructure, ensuring every eligible student secures a relevant, high-quality AI or technology internship placement before graduation.

Benefit	What It Delivers for AI Students
Workplace Readiness	Real-world exposure to professional AI environments — applying machine learning tools, AI APIs, and intelligent system workflows in live UAE organisations.
Professional Networking	Direct relationships with AI engineers, data scientists, ML leads, and technology directors who can become references, mentors, or future employers.
Industry Exposure	Understanding of how AI theories and ML frameworks operate in live UAE and GCC technology environments — from government AI initiatives to FinTech and healthcare platforms
Portfolio Evidence	Internship deliverables — models trained, systems built, AI tools deployed — become the most compelling portfolio evidence a graduate can present in technical interviews.
Career Acceleration	Many students convert AI internships into direct employment offers, dramatically accelerating their transition from student to AI professional.

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Future Career Opportunities

Where a BSc Artificial Intelligence From JU Takes You

Graduates of the BSc Artificial Intelligence programme are positioned for a wide spectrum of career opportunities across the UAE, GCC, and global markets. The combination of computer science foundations, AI specialisation, cloud certifications, AI literacy credentials, and verified project experience creates a profile that is highly relevant across every sector of the modern technology economy.

Career Role	Sector	What You Will Build or Govern
Artificial Intelligence Engineer	Technology, FinTech, Healthcare, Government	End-to-end AI systems — from model training to production deployment and monitoring.
Machine Learning Engineer	Technology, Research, Enterprise AI	Scalable ML pipelines, model training infrastructure, and production ML system deployment.
Generative AI Specialist	Technology, Media, Enterprise, Consulting	LLM applications, generative AI tools, prompt engineering systems, and AI-augmented workflows.
Computer Vision Engineer	Healthcare, Autonomous Systems, Smart Cities	Visual AI systems for image recognition, object detection, and AI-powered visual intelligence.
NLP / Conversational AI Specialist	Technology, Customer Experience, Research	Language intelligence systems, chatbots, semantic search, and text analytics platforms.
AI Solutions Architect	Consulting, Enterprise Technology	End-to-end AI architecture design, platform selection, and intelligent system integration.
AI Product Manager	Technology Companies, AI Startups	AI product strategy, roadmap development, and intelligent system product design.
AI Research Associate	Universities, R&D Labs, Technology Companies	Cutting-edge AI research in ML, deep learning, NLP, and emerging AI disciplines.
Intelligent Automation Consultant	Consulting, Finance, Operations	RPA + AI solutions, intelligent workflow design, and process automation platforms
AI Ethics & Governance Specialist	Regulatory, Enterprise, Government	Responsible AI frameworks, bias auditing, explainability systems, and AI compliance.
XR & Spatial AI Developer	Gaming, Training, Smart Environments	VR/AR applications enhanced with AI for immersive and spatially intelligent experiences.
AI Innovation Consultant	Consulting, Advisory, Startups	Translating AI capabilities into business value across industries and organisational contexts.

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Graduate Employability Advantage

Employer-Ready AI Professionals from Day One

Leading employers — from global technology companies and UAE government AI initiatives to management consulting firms and FinTech scale-ups — are seeking AI graduates who can demonstrate validated, deployable technical competencies before their first day. JU graduates arrive having built real AI systems, earned a portfolio of cloud and AI certifications, completed a guaranteed internship, and delivered applied project work that proves their capabilities beyond academic performance.

What Employers See in a JU AI Graduate

Aspect	What It Signals
Validated AI Technical Skills	Industry certifications in Python, ML, Deep Learning, Azure AI, Google AI, and Generative AI provide employer-readable proof of specific AI tool competency.
Demonstrated AI Proficiency	Three-tier AI Literacy certification and AI-embedded project work signals the AI depth that commands a significant salary premium in UAE and GCC AI hiring
Real AI Project Portfolio	Actual ML models trained, computer vision systems built, and AI applications deployed — concrete evidence of capability that academic grades alone cannot demonstrate.
Practical Industry Experience	A formal internship placement with a UAE or GCC technology organisation — documented and verifiable — reduces onboarding risk and accelerates hiring decisions decisively.
Accredited Academic Foundation	A CAA-accredited BSc from Jumeira University Dubai — recognised by UAE employers, professional associations, and international graduate programmes.

The Dubai AI Advantage — Why Location Is a Career Asset

UAE / Dubai Indicator	Why It Matters for Finance Careers
UAE National AI Strategy 2031	Government mandate to make UAE a global AI leader — creating sustained public-sector AI talent demand across every ministry.
World's First Minister of AI	UAE's global leadership in AI governance creates unique career pathways at the intersection of policy, technology, and public service.
GITEX Global — World's Largest Tech Event	Annual access to thousands of global technology employers, AI startups, and innovation leaders in JU's home city.
Smart Dubai Initiatives	Government AI investment in smart infrastructure, AI healthcare, and digital services creates applied AI career opportunities without parallel.
DIFC FinTech & AI Ecosystem	Fastest-growing financial technology hub in MENA — intensive AI talent demand across trading, risk, compliance, and customer intelligence.

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Programme Learning Outcomes

What You Will Graduate Knowing and Being Able to Do

The BSc Computer Science with Artificial Intelligence Concentration programme is structured around ten Programme Learning Outcomes (PLOs) that collectively define the knowledge, skills, and professional competencies every graduate will have developed:

PLO	Outcome
PLO 1	Analyse and solve complex problems with appropriate knowledge and understanding of the concepts, principles, and theories in computing.
PLO 2	Design, implement, and evaluate computing-based solutions to meet specific requirements, incorporating principles of sustainability and ethical considerations in the context of the programme's concentrations.
PLO 3	Communicate effectively in various professional contexts and function as a responsible member or leader of diverse teams, promoting innovative and entrepreneurial solutions in computing projects.
PLO 4	Recognise professional responsibilities and make informed judgments in computing practice based on legal, ethical, and sustainability principles, ensuring data privacy and cybersecurity standards are upheld.
PLO 5	Participate in continuous professional development and lifelong learning to keep pace with the rapidly evolving fields in the computer science domain.
PLO 6	Apply innovative solutions using advanced techniques in computer science to address real-world problems, demonstrate the ability to conduct research, and take individual initiative and enterprise.
PLO 7	Analyse the local and global environmental impact of computing on individuals, organisations, and society, emphasising the ethical implications, benefits and advancements.
PLO 8	Develop and implement AI technologies, models and techniques across various domains encompassing the requirements, regulations and ethical practice locally and globally.
PLO 9	Demonstrate proficiency in collecting, cleaning, managing, and analysing large datasets and making data-driven decisions in various business contexts.
PLO 10	Illustrate expertise in identifying and analysing threats and risks, and design and develop secure systems and networks by ensuring confidentiality, integrity and authenticity.

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Complete Approved Curriculum Structure

Exactly as Approved by Jumeira University — No Modifications

120	4	Full-Time	CAA
Credit Hours	Years		Accredited

University Requirements: 24 CH | **College Requirements: 54 CH** | **Programme Requirements: 42 CH**

University Requirements (24 Credit Hours)

Core Courses — 18 Credit Hours

Code	Course Title	CH	Requisites
GE 101 / GE 115	Arabic Language Communication 1 or Basic Arabic Language 1	**3**	None
GE 103	English Language Communication 1	**3**	Score 5 in IELTS or equivalent
GE 104	English Language Communication 2	**3**	Score 5 in IELTS or equivalent
GE 125	Fundamentals of Entrepreneurship & Innovation	**3**	Score 5 in IELTS or equivalent
GE 142 / GE 144	UAE Society / مجتمع الإمارات	**3**	Score 5 in IELTS or equivalent /None
GE 147 / GE 141	Islamic Thought / الثقافة الإسلامية	**3**	Score 5 in IELTS or equivalent /None
	Total	**18**	Credit Hours

Elective Courses — 6 Credit Hours

Code	Course Title	CH	Requisites
GE 102 / GE 116	Arabic Language Communication 2 or Basic Arabic Language 2	**3**	None
GE 114	Principles of Research Skills	**3**	Score 5 in IELTS or equivalent
GE 123 / GE 107	Personal Management / الإدارة الذاتية	**3**	Score 5 in IELTS or equivalent / None
GE 131	Critical Thinking	**3**	Score 5 in IELTS or equivalent
GE 145 / GE 140	Islamic Civilization / الحضارة الإسلامية	**3**	Score 5 in IELTS or equivalent /None
GE 148	UAE Economy and Labour Market	**3**	Score 5 in IELTS or equivalent
GE 132	Introduction to Programming	**3**	None
GE 133	Linear Algebra	**3**	Credit Hours
	Total	**6**	Credit Hours

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COLLEGE REQUIREMENTS (54 Credit Hours)

Core Courses — 45 Credit Hours

Code	Course Title	CH	Requisites
MA 110	Probability and Statistics	**3**	None
CG 200	Digital Logic Design	**3**	None
MA 201	Calculus	**3**	GE 133
MA 202	Discrete Mathematics	**3**	MA 201
CG 203	Fundamentals of Computer Hardware	**3**	CG 200
CG 204	Fundamentals of Computer Networks	**3**	None
CG 205	Fundamentals of Relational Database Management Systems	**3**	GE 132
CG 300	Advanced / Object Oriented Programming	**3**	CG 207
CG 206	Database Administration	**3**	CG 205
CG 207	Introduction to Software Engineering	**3**	CG 205
CG 301	Introduction to Information Security	**3**	CG 204
CG 208	Web Engineering	**3**	GE 132
CG 400	Research Methodology & Project Planning	**3**	CG 207
CG 490	*CS Internship	**3**	90 Credits
CG 499	CS Project	**3**	96 Credits
	Total	**42**	Credit Hours

College Elective Courses — 9 Credit Hours

Code	Course Title	CH	Requisites
CG 401	Scientific Programming	**3**	CG 300
CG 302	Applied Regression Analysis	**3**	MA 110
CG 402	Advanced Data Mining	**3**	CG 205
CG 403	Time Series Analysis	**3**	MA 110
CG 404	Data Visualization	**3**	CG 209
CG 405	Advanced Web Engineering	**3**	CG 208
CG 406	Information Audit and Assurance	**3**	CG 305
CG 407	Risk Management	**3**	CG 206
CG 408	Network Administration	**3**	CG 204
	Total	**9**	Credit Hours

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PROGRAMME REQUIREMENTS (42 Credit Hours)

Core Courses — 33 Credit Hours

Code	Course Title	CH	Requisites
CG 209	Algorithms and Data Structure	**3**	GE 132
CG 303	Operating Systems	**3**	CG 203
CG 409	Block Chain Technologies	**3**	CG 209
CG 304	IoT Concepts and Architecture	**3**	CG 203, CG 204
CG 410	Software Project Management	**3**	CG 207
	Concentration Courses	**3**	See below
	Total	**33**	Credit Hours

Programme Elective Courses — 9 Credit Hours

Code	Course Title	CH	Requisites
CG 411	Network Security & Management	**3**	CG 301
CG 412	Programming with Python	**3**	CG 300
CG 413	Software Requirement Specification	**3**	CG 207
CG 305	Mobile & Cloud Computing	**3**	CG 204, CG 303
CG 306	Software Development Process	**3**	CG 207
	Total	**9**	Credit Hours

ARTIFICIAL INTELLIGENCE CONCENTRATION COURSES (18 Credit Hours)

Course Category — Artificial Intelligence Core Courses = 18 Credits

Code	Course Title	CH	Requisites
AI 210	Introduction to Artificial Intelligence	**3**	None
AI 307	Artificial Intelligence and Deep Learning	**3**	AI 210
AI 308	Computer Vision	**3**	AI 210
AI 414	Automata Languages and Computation	**3**	AI 307
AI 415	Virtual and Augmented Reality	**3**	AI 308
AI 416	Machine Intelligence Systems	**3**	AI 307
	Total	**33**	Credit Hours

120 Credit Hours	**4** Years	**Full-Time**	**CAA** Accredited

University Requirements: 24 CH | **College Requirements: 54 CH** | **Programme Requirements: 42 CH**

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Certifications, Projects & AI Enhancement Ecosystem

Year-by-Year Map — Complementary to the Approved Curriculum

The following framework maps all AI certifications, bootcamps, project-based learning activities, and career readiness modules to the four-year student journey. These activities are entirely complementary to the approved curriculum and do not modify or replace any formal academic component.

Year 1

Computing Foundations & AI Literacy

Activity / Certification	Type	Description
AI Literacy Programme — Beginner Tier	AI Literacy Certification	AI fundamentals, ethics, responsible use, AI policy, and AI in every day financial life.
AI Literacy Certificate — Beginner	Certification Award	Issued on successful completion of Tier 1 AI Literacy Programme.
UAE AI Innovation Project — Introduction	Experiential Learning	Introduction to AI problem framing — applying introductory AI concepts to a UAE business or social challenge.
AI Foundations & Programming Bootcamp	Future Skills Bootcamp	Introduction to Python for AI, Jupyter environments, ML fundamentals, and AI tool landscape overview.

Year 2

Applied Finance & Certification Development

Activity / Certification	Type	Description
AI Literacy Programme — Intermediate Tier	AI Literacy Certification	Prompt engineering, AI tools in accounting and finance disciplines, critical evaluation of AI-generated outputs.
AI Literacy Certificate — Intermediate	Certification Award	Issued on successful completion of Tier 2 AI Literacy Programme.
Python for AI & ML Certificate	Industry Certification	Core Python programming credential for AI development — widely required by UAE and global AI employers.
Machine Learning Foundations Certificate	Industry Certification	Rigorous ML certificate across supervised, unsupervised, and reinforcement learning concepts and algorithms.
Machine Learning & Deep Learning Bootcamp	Future Skills Bootcamp	Hands-on ML algorithm training, neural network fundamentals, and model evaluation using real datasets.
ML Competition — Cross-Domain Dataset Challenge	AI Project / Competition	Structured ML challenge using real UAE/GCC market datasets — predictive modelling and model comparison.

Year 3

AI Specialisation & Professional Certifications

Activity / Certification	Type	Description
Deep Learning Fundamentals Certificate	Industry Certification	Neural network certification - CNNs, RNNs, Transformers - validates proficiency in the architectures driving modern AI.
Microsoft Azure AI Fundamentals (AI-900)	Industry Certification	Globally recognised Microsoft AI credential — widely required for AI roles in enterprise and government organisations.
Generative AI Professional Certificate	Industry Certification	Applied generative AI, LLM APIs, prompt engineering, and RAG system development — the highest-demand AI skill category.
Generative AI & Cloud Platforms Bootcamp	Future Skills Bootcamp	Hands-on LLM API use, prompt engineering, cloud AI deployment, and AI application prototyping.
Computer Vision Industry Project	Real-World Project	End-to-end computer vision application — image classification or object detection applied to a real UAE industry challenge.
Global Virtual Consulting Project	Global Project Exposure	International virtual project addressing a live global finance challenge with cross-border teams.

Year 4

AI Leadership & Career Acceleration

Activity / Certification	Type	Description
AI Literacy Programme — Advanced Tier	AI Literacy Certification	AI model design concepts, AI-driven research, building AI-augmented solutions, responsible AI leadership.
AI Literacy Certificate — Advanced	Certification Award	Formal credential recognising advanced AI literacy — issued on completion of Tier 3 Programme
Responsible AI & Ethics Certificate	Professional Certification	Validates governance and ethical application of AI — bias auditing, explainability, and regulatory compliance.
CS Project (CG 499) — AI-Enhanced Capstone	Capstone Enhancement	Final Year CS Project with demonstrable AI integration and structured Gibbs Reflective Framework component.
CS Internship (CG 490)	Guaranteed Internship	Formal credit-bearing internship through JU's industry ecosystem in an AI or technology-relevant UAE organisation.
AI Career Accelerator Bootcamp	Employability Module	AI portfolio development, technical interview preparation, GitHub strategy, salary negotiation, employer engagement.
Employer Readiness Certification	Graduate Credential	Awarded on completion of all employability requirements: internship, bootcamps, and career readiness modules.

جـــامعة جـــميرا
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Why This Degree Delivers Long-Term Career Sustainability

AI Readiness. Innovation Leadership. Future-Proof Careers.

Choosing a degree is one of the most consequential investments a student and their family will make. The BSc Artificial Intelligence from Jumeira University is engineered to deliver compounding professional value — not just a first job, but a sustainable, growing career at the frontier of the most important technology of our era.

01 Career Resilience in an AI-Transformed Economy

AI will automate many routine tasks — but it will not replace the professionals who design, build, evaluate, and govern AI systems. The roles that require algorithmic thinking, mathematical intuition, creative system design, and the ethical judgment to deploy AI responsibly are precisely the roles that AI cannot replicate. By developing genuine AI engineering capability, JU graduates are not threatened by AI — they are the people who build it.

02 The AI Skills Premium

AI engineering skills command the most significant salary premium of any technology discipline. JU graduates arrive in the market with four years of progressive AI skill development, verified through multiple certifications, an AI portfolio of real projects, and AI Literacy Awards from Beginner through Advanced. In a competitive graduate technology market, this combination commands a measurable premium at entry level — and compounds dramatically at every subsequent career stage.

03 Global Employability

Triple certification, AI specialisation, and a UAE educational background from a CAA-accredited institution create a genuinely global professional profile. JU AI graduates are positioned for career opportunities across the GCC, MENA, the United Kingdom, Singapore, Canada, Australia, and beyond. The combination of Dubai exposure, international project experience, and recognised professional credentials provides career mobility that few regional universities can match.

04 AI Innovation Leadership Potential

The programme develops not just AI practitioners but future AI leaders. Research Methodology, Software Project Management, Entrepreneurship, IoT, and Blockchain sit alongside AI concentration courses — ensuring graduates possess the intellectual breadth, research capability, and entrepreneurial mindset to found AI companies, lead AI teams, advise boards on AI strategy, and shape how organisations and governments deploy intelligent technology.

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Graduate Value Proposition

A Jumeira University BSc AI graduate enters the workforce with:

01 A fully accredited BSc Degree — CAA-accredited, Jumeira University Dubai

02 A portfolio of AI certifications: Python for AI, ML Foundations, Deep Learning, Azure AI, Generative AI

03 Three-tier AI Literacy Certification (Beginner, Intermediate, Advanced)

04 Verified AI project portfolio — models built, systems deployed, challenges won

05 Guaranteed internship experience — documented and employer-verified

06 An Employer Readiness Certification confirming full career preparation

This is not just a degree.

It is a comprehensive finance career launch platform.

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Testimonials

Alya Al Mazrouei

BSc in Computer Science – Artificial Intelligence

Studying Computer Science with a concentration in Artificial Intelligence at Jumeira University has helped me understand how technology can solve real-world problems. Through practical projects, coding exercises, and AI-focused learning, I developed strong skills in programming, data analysis, and intelligent systems that prepared me for the future of technology.

Meera Al Khouri

BSc in Computer Science – Artificial Intelligence

The Artificial Intelligence concentration gave me the opportunity to explore areas such as machine learning, problem-solving, and smart technologies. Jumeira University's supportive faculty and hands-on learning environment helped me build confidence and develop the technical knowledge needed for a career in the fast-growing AI field.

Sara Al Hashimi

BSc in Computer Science – Artificial Intelligence

What I appreciate most about Jumeira University is how the programme connects computer science fundamentals with modern Artificial Intelligence applications. From learning algorithms to working on AI-based projects, every course strengthened my understanding of technology and inspired me to contribute to future digital innovation.

جامعة جميرا
JUMEIRA UNIVERSITY

Are You Ready to Become The Next Generation AI Innovator?

The AI economy is not waiting. The organisations building intelligent systems are not waiting. The decision you make today determines where you are in four years — and what you build for the world.

- AI-Embedded Learning
- Triple Certified Degree
- 100% Guaranteed Internship
- Industry AI Certifications
- Real-Time Global Project Experience
- Machine Learning & GenAI Exposure
- Innovation-Driven Learning
- Dubai-Based Education
- Employer-Ready Graduates

In four years, you could be the AI engineer who builds the computer vision system that transforms UAE healthcare. The machine learning model that prevents financial fraud at scale. The generative AI application that redefines how government services reach citizens. The intelligent automation platform that makes an entire industry more efficient.

That innovation begins at Jumeira University.

Apply Now

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The Professions University: Where Your Future Takes Flight