Computer Science and Computer Engineering

Because tomorrow matters

Computer science and computer engineering are rapidly evolving fields that address critical global challenges and offer a wide range of growing career opportunities. Whether you're passionate about developing innovative software solutions or solving complex problems through hardware and networks, AUS provides the foundation to turn your ambitions into reality. At AUS, students gain hands-on experience and in-depth knowledge in cutting-edge areas such as artificial intelligence, machine learning, deep learning, data science, virtual reality, cloud computing, cyber-physical systems, cybersecurity, the Internet of Things, and mobile app development.

The Department of Computer Science and Engineering offers two undergraduate programs: the **Bachelor of Science in Computer Science** and the **Bachelor of Science in Computer Engineering**. Both programs are designed to equip students with the skills and expertise needed to thrive in the ever-evolving tech landscape and meet the challenges of the future.

Why computer science or computer engineering at AUS?

Are you ready to enter the exciting world of computer science or computer engineering? Here are some reasons students chose to pursue their ambitions at AUS.

Renowned faculty. Our widely published faculty come from some of the world's best computer science and computer engineering schools including, The University of Texas at Dallas, University of Arizona, University of Michigan, University of Minnesota, Virginia Commonwealth University, Massachusetts Institute of Technology, University of Ottawa, Western University, National Polytechnic Institute of Grenoble, National Technical University of Athens, University of Essex, Georgia Institute of Technology, University of Waterloo, Purdue University and University of Southampton.

State-of-the-art facilities. Our students sharpen their new-found skills and knowledge in our diverse range of labs, including:

Advanced Programming Lab	High Performance Computers Lab
Artificial Intelligence Lab	Internet and Mobile Computing Lab
Computer Networks Lab	Microcontrollers Lab
CSE Programming Lab	Senior Design Lab
Cyber Security Lab	Software Engineering Lab
Digital Systems Lab	Software Design Lab
Embedded Systems and Industrial Computer Applications Lab	Virtual and Augmented Reality Lab
	Advanced Digital Systems Lab
Health and IoT Lab	VLSI Lab

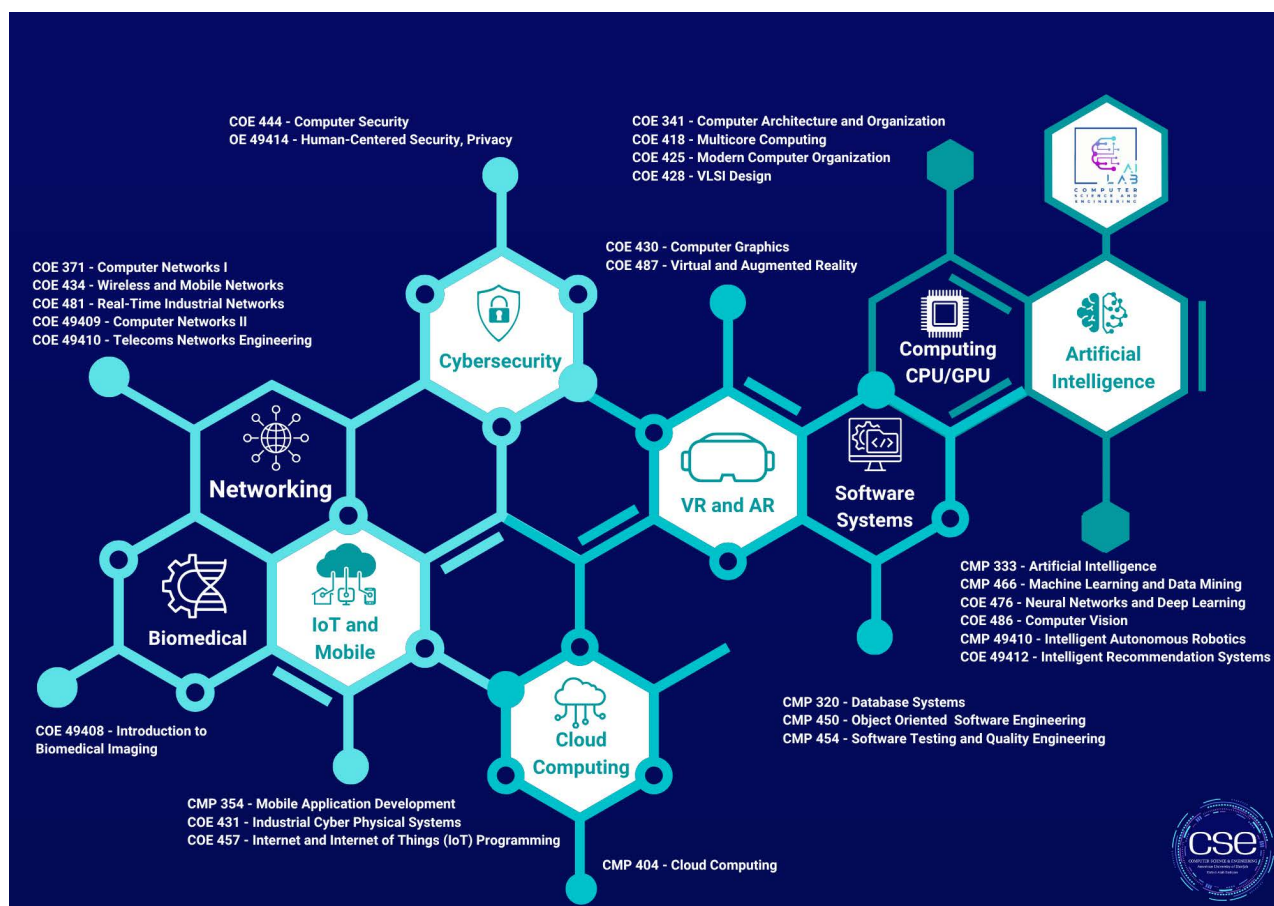**Accredited programs.** Our programs are accredited in the UAE and USA.
- AUS is licensed and its programs are accredited by the Commission for Academic Accreditation of the UAE Ministry of Higher Education and Scientific Research.
- AUS is accredited in the USA by the Middle States Commission on Higher Education.
- The **computer engineering** (BS) program is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and Program Criteria for Electrical, Computer, Communications, Telecommunication(s) and Similarly Named Engineering Programs.
- The **computer science** (BS) program is accredited by the Computing Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and Program Criteria for Computer Science and Similarly Named Computing Programs.

Variety of scholarships and grants. Eligible students have access to a wide range of scholarships and other financial support, including merit and need-based scholarships and grants.

Opportunities beyond the classroom. Our students enjoy an active and diverse extracurricular experience, with more than 120 interest-oriented clubs and 33 sports teams. Our students enjoy being active in the Computer Engineering Club, UPE Honor Society, Open Source Club, Google Developer Student Club, Game Development Club, IEEE Computer Society, IEEE Special Interest Group on Humanitarian Technology, TechShip Club and The Ada Club. Many engineering students have broadened their experience by studying abroad at well-known universities in the USA and around the world.

In addition, our students challenge themselves by taking part in competitions such as the Emirates Mars Mission's Planet X Challenge, IEEExtreme 24hour Global Programming Contest, University Blockchain Challenge and many others. We also offer students programs to help them gain professional certifications including CISCO, HP, Redhat, SAP/HANA, AWS, Dell Technologies Envision the Future Annual Graduation Project Competition, Annual NYUAD International Hackathon and ITU Geo AI Challenge.

Broad curriculum. Students can choose from a wide variety of courses.

A top choice among employers. Many opportunities await our students upon graduation. Our graduates are employed by organizations including:

Category	Employers		
Government & Public Sector	Abu Dhabi Investment Authority Crown Prince's Court DEWA Dubai Financial Market	Dubai International Airport Dubai World Dubai World Trade Center Ministry of Foreign Affairs	Mohammed Bin Rashid Space Centre Office of His Highness the Ruler of Sharjah Prime Minister's Office
Technology & IT	Accenture Amazon Cisco Sytems DELL EMC	Google Hewlett-Packard Enterprises IBM Middle East Microsoft Nokia Siemens Networks	Oracle Samsung Electronics Sony Gulf Xerox
Energy & Oil	Bee'ah Petrofac International Ltd.	Sharjah National Oil Corporation Schlumberger	Shell
Retail & E-commerce	Noon	ODOO	
Emerging Tech & Metaverse	Bedu	Meta	
Consulting & Professional Services	Deloitte & Touche	Ernst and Young	IBM Middle East
Telecommunications	Du	Emirates Integrated	Etisalat
Aviation & Aerospace	Emirates Airlines	Etihad Airways	Global Aerospace Logistics LLC
Events & Tourism	Expo 2020	Jumeirah Group	
Finance & Banking	Mastercard	Standard Chartered Bank	
Industrial & Engineering	Bosch	General Electric	Siemens

Preparation for top graduate programs. Our alumni pursue master's and PhD programs at illustrious universities across the world, including Boston University, Brunel University London, Carleton University, Concordia University, Hult International Business School, Iowa State University, King Abdullah University of Science and Technology, University of British Columbia, University College London, University of Edinburgh, University of Illinois Urbana-Champaign, University of Michigan, University of North Carolina at Charlotte, University of Ottawa, University of Oxford, University of Toronto, Imperial College and Western University.

International recognition. AUS has an impressive list of rankings to its name:

o   Among the **top 10 Arab universities** every year for the past 10 consecutive years (QS Arab Region University Rankings 2025)
o   Among the **top three in the UAE and top 450 universities globally** for computer science and information systems (QS World University Subject Rankings 2025)
o   Graduates who have studied computer science and information systems at AUS are a **top choice for employers in the UAE, ranking third in employer reputation** (QS World University Subject Rankings 2025)
o   Among the **top four universities** in the UAE and among the **top 600 globally** for engineering studies (THE World University Subject Rankings 2024)
o   Among the **top five universities** globally with the highest percentage of international students (THE World University Rankings 2024)

What is the difference between computer science and computer engineering?

Both computer science and computer engineering offer exciting career opportunities. While there are some areas common to both fields, there are some differences in what students will study and what career paths they can take, depending on the program they choose.

Aspect	Computer Science	Computer Engineering	Common Areas
Academic Perspective	Focuses core areas of computing such as software, algorithms, AI and theoretical foundations	Combines electrical engineering and computer science, focusing on hardware, embedded systems AI, and hardware-software interaction	• Computer programming • Operating systems • Computer networks • Database concepts • Artificial Intelligence
Job Opportunities	Careers in software development, networking, data science, cyber security and Artificial Intelligence	Careers in hardware, embedded systems and networking across industries like telecommunications, robotics, electronics and Artificial Intelligence	• Software development • Cybersecurity • System analysis • Artificial Intelligence
Required Credits	122 credits	130 credits	77 credits
Math Requirements	Math: Numerical Analysis	Math: Differential Equations	• Math Discrete • Calculus I • Calculus II • Linear Algebra
Science Requirements	Natural sciences	Physics I and II	• Natural sciences
Courses from Other Majors	Computer Engineering	Electrical engineering, Computer Science	

Contact us

Department Head
Dr. Imran Zualkernan, +971 6 515 2953, izualkernan@aus.edu

CSE Academic Advisors
Manal Dawood, +971 6 515 2908, mndawood@aus.edu
Amr Hosny, +971 6 515 4806, ahosny@aus.edu

Administrative Assistant
Desiree Juan, +971 6 515 2969, dcjuan@aus.edu

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