AUS | American University of Sharjah

COLLEGE OF ENGINEERING

Mechanical Engineering



Mechanical engineers shape our future. They are instrumental in finding innovative solutions that progress technology and expand humankind's horizons. By earning a **Bachelor of Science of Mechanical Engineering** at AUS, you could be at the helm of innovation in many fields from developing new materials and studying contemporary design and manufacturing processes to finding greener ways of generating energy and designing autonomous vehicles and jet engines.

Why Mechanical Engineering at AUS?

From outstanding faculty to world-class facilities, here is a snapshot of why students chose to study industrial engineering with us.

Renowned faculty. Our faculty come from some of the world's best mechanical engineering schools including University of California, University of Toronto, University of Cincinnati, University of Illinois at Urbana Champaign, Illinois Institute of Technology, University of Kentucky, Virginia Tech, Texas A&M University, University of New Brunswick, University of Kentucky, University of Ontario Institute of Technology, University of Florida and Ryerson University.

Cutting-edge research. Our faculty members are active researchers in a variety of areas including robotics and automation, micro-electro mechanical systems (MEMS), fuel cells, microfluidics and lab on a chip, renewable and sustainable energy, machining, additive manufacturing and sustainable manufacturing, and nondestructive evaluation.

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

Aerospace Laboratory

Computer-Aided Design Lab

Drone Design and Manufacturing Academy

Dynamics and Control Systems Laboratory

Dynamics System Lab

Manufacturing Laboratory

Materials Laboratory

Measurements and Instrumentation Laboratory Mechatronics Laboratory Nondestructive Evaluation Laboratory Product Visualization Lab Refrigeration and Air Conditioning Laboratory Renewable Energy Lab Wind Tunnel 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 Education's Higher Education Affairs Division.
- $_{\odot}$ $\,$ AUS is accredited in the USA by the Middle States Commission on Higher Education.
- The mechanical engineering (BS) program is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Program Criteria for Mechanical and Similarly Named Engineering Programs.

Broad curriculum. Our students can choose from a wide and diverse selection of electives, including:

| Advanced Mechanics of Materials |
|---------------------------------------|
| Aerospace Propulsion |
| Aircraft Stability and Control |
| Applied Aerodynamics |
| Applied Finite Element Analysis |
| Composite Materials |
| Computer Integrated Manufacturing |
| Energy Conservation and Management |
| Energy Systems |
| Fuel Cells and Hydrogen |
| Fundamentals of Computer-Aided Design |
| and Manufacturing |

| Hydraulics of Pipeline Systems |
|---------------------------------------|
| Inspection and Nondestructive Testing |
| Internal Combustion |
| Introduction to Computational Fluid |
| Dynamics |
| Introduction to Mechatronics |
| Introduction to Robotics |
| Kinematic and Dynamics of Machinery |
| Mechanical Vibrations |
| Refrigeration and Air Conditioning |
| Renewable Energy Systems |
| Turbomachines |
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Variety of scholarships and grants. Eligible students have access to a wide range of scholarships and other financial support, with approximately two-thirds of all AUS students benefitting.

Opportunities beyond the classroom. Our students enjoy an active and diverse extracurricular experience, with more than 80 interest-oriented clubs and 26 sports teams on campus. Our students also have the opportunity to challenge themselves by taking part in a number of competitions, including Skill Up Compete, ASME Additive Manufacturing 3D Printing Competition and the James Dyson Award.

A top choice among employers. Many opportunities await our students upon graduation. Our graduates are employed by organizations including Abu Dhabi National Oil Company, Baker Hughes, Dubai Electricity & Water Authority, Emirates Global Aluminum, General Electric, Johnson Controls, National Petroleum Construction Company, Petrofac International, Proctor & Gamble, Sharjah Electricity & Water Authority, Siemens and Unilever.

Preparation for top graduate programs. Our alumni pursue master's and PhD programs at illustrious universities across the world, including Georgia Institute of Technology, McGill University, Ohio State University, University of Manchester, University of British Colombia, University of California–San Diego, University of Cambridge, University of Illinois at Urbana-Champaign, University of Oxford, University of Toronto, University of Waterloo and Virginia Tech.

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

- Among the top 10 Arab universities every year for the past eight consecutive years (QS Arab Region University Rankings 2023)
- Among the **top 50 universities** in the world under the age of 50 years (QS World University Rankings 2021)
- Among the top two (tied) in the UAE and top 300 universities globally in the category of mechanical, aeronautical and manufacturing engineering (QS World University Subject Rankings 2023).
- Graduates who have studied mechanical, aeronautical and manufacturing engineering at AUS are the **top choice for employers in the UAE** (QS World University Subject Rankings 2023)
- Among the top four universities in the UAE and among the top 600 globally for engineering studies (THE World University Subject Rankings 2023)
- Among the **top five universities** globally with the highest percentage of international students (THE World University Rankings 2023)

Contact

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