Curriculum

COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
General Education Requirements: 24 Credit Hours					
ARL 101(A)	Communication Skills in Arabic I	ENG 200	English II	FWS 205	UAE and GCC Society
FWS 305	Technical Communications for the work place	FWS 310	Fundamentals of Innovation and Entrepreneurship	ISL 100	Islamic Culture
MTT 102	Calculus I	STT 100	General Statistics		
Degree Requirements: 39 Credit Hours					
MTT 200	Calculus II	MTT 201	Calculus III	MTT 204	Introduction to Linear Algebra
MTT 205	Differential Equations	PHY 102	Physics and Engineering Applications I	PHY 102 L	Physics and Engineering Applications I Lab
PHY 201	Physics and Engineering Applications II	PHY 201 L	Physics and Engineering Applications II Lab	CHE 205	General Chemistry I
CHE 201L	Chemistry Lab	CME 200	Introduction to Chemical Engineering	CSC 201	Structured Programming
COE 202	Engineering Ethics, Law and Economy	COE 102	Introductory Big Data Analytics	COE 101	Introductory Artificial Intelligence
Major Requirements: 58 Credit Hours					
CHE 206	General Chemistry II	CHE 206L	General Chemistry II Lab	CHE 305	Organic Chemistry
CHE 330	Physical Chemistry	MEC 300	Materials Science	CME 210	Principles of Chemical Engineering
CME 220	Chemical Engineering Thermodynamics I	CME 300	Chemical Engineering Thermodynamics II	CME 301	Mass Transfer
CME 305	Modeling and Simulation in Chemical Engineering (with Embedded Lab)	CME 212	Fluid Mechanics for Chemical Engineers	CME 320	Chemical Engineering Laboratory I
CME 321	Process Dynamics and Control	CME 331	Chemical Reaction Engineering	CME 341	Heat Transfer
CME 400	Separation Processes	CME 430	Chemical Engineering Laboratory II	CME 450	Process Design
CME 398	Internship I	CME 399	Internship II	CME 455	Industrial Software for Chemical Engineers
CME 498	Capstone Design Project I	CME 499	Capstone Design Project II		
Water Technology Concentration Courses: 15 credit hours					
CME 480	Physical and Chemical Processes for water and wastewater treatment	CME 481	Desalination Technologies	CME 482	Sludge Treatment
CME 483	Industrial Wastewater Treatment	CME 484	Industrial Water Pollution & Control		

BACHELOR OF SCIENCE IN

CHEMICAL ENGINEERING

WATER TECHNOLOGY CONCENTRATION

V: 062022

جامعة أبوظبي
Abu Dhabi University
College of Engineering

ABET Engineering Accreditation Commission

Program Overview

B.Sc. in Chemical Engineering - Water Technology Concentration

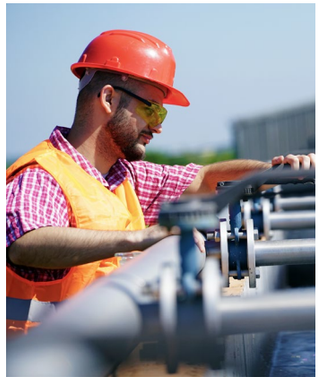
Chemical engineering (ChE) is the branch of engineering that deals with the conversion of raw materials to useful products by applying the principles of science and engineering. It involves the design, operation, and maintenance of facilities ranging from refineries, petrochemical, pharmaceutical plants, and nuclear-waste processing plants, to food and materials processing facilities.

Graduates of the program will be able to

- Design, analyze, and test wide-ranging solutions for state-of-the-art chemical engineering systems and processes
- Evaluate all aspects of modern chemical engineering systems
- Apply modern practical techniques to areas of chemical engineering technology
- Diagnose problems and develop a variety of solutions
- Apply hands-on experience and ideas in a variety of real-life situations
- Integrate professional responsibility and ethics in the workplace

According to Forbes, chemical engineering was the highest paying job in 2016. Graduate Chemical Engineers are in high demand throughout the world with roles including operatioon of plants, troubleshooting manufacturing processes, and research to develop new and improved manufacturing processes.

Our students have taken up internships in a wide range of companies including Altaweela Power and desalination complex, Corodex wastewater treatment and purification, Abu Dhabi Ports, ADCO, ADGAS, Al Masaood Oil & Gas, Arab Geotech Laboratories, Bureau Veritas, Gulf Laboratory, Masder Institue, Schlumberger, Union Chemicals Factory, Worley Parsons and others.



Student's Testimonial

IT BECAME MY ULTIMATE DREAM

Sana Mohammad Eid - Alumna, BSc. in Chemical Engineering

I completed my B.Sc. in Chemical Engineering at ADU and graduated among its first batch, and I further completed my M.Sc. in Water Resources at UAEU. Currently, I am pursuing my Ph.D. in Chemical Engineering at Khalifa University while also working as a Graduate Teaching/Research Assistant. I owe a lot of my self-growth and success to my time at ADU under the supervision and support of an elite and dedicated faculty. To all the new students who want to pursue Chemical Engineering, there is no major I could recommend more! Just remember failures are part of the path. May it be a failed exam or a failed subject, this should not be a hindrance to your success. You can move past it through not only your analytical and logical skills but also through determination and passion. Just have the will and work harder. Good luck!

Career Prospects

Graduates of the Chemical Engineering with Water Technology Concentration program can work in a variety of sectors including water desalination, wastewater treatment, food and drinking water industry, the oil and gas industry, petrochemicals, materials (aluminum, steel, plastics), electronics industry, pharmaceuticals, and the cosmetics industry. Chemical Engineers can work as Project Engineers, Design Engineers, Operations Engineers, Research and Development (R&D), Product Engineers, Quality Control Engineers, Sales and Marketing Engineers, and Health and Safety Engineers.