

Curriculum

COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
General Education Requirements: 24 Credit Hours					
ARL 100	Communication Skills in Arabic I	ENG 200	English II	FWS 305	Technical Communications for Workplace
ISL 100(A)	Islamic Culture	FWS 310	Fundamentals of Innovation and Entrepreneurship	MTT 102	Calculus 1
FWS 205	UAE and GCC Society	STT 100	General Statistics		
Degree Requirements: 42 Credit Hours					
MTT 200	Calculus 2	MTT 201	Calculus 3	MTT 204	Introduction to Linear Algebra
MTT 205	Differential Equations	PHY 102	Physics and Engineering Applications I	PHY 102L	Physics and Engineering Applications I Lab
PHY 201	Physics and Engineering Applications II	PHY 201L	Physics and Engineering Applications II Lab	CHE 205	Chemistry
CHE 201L	Chemistry Lab	GOL 205	Physical Geology	CSC201	Computer Programming I
COE 102	Introductory Big Data Analytics	COE 101	Introductory Artificial Intelligence	COE202	Engineering Ethics, Economy and law
GEN300	Numerical Methods				
Major Requirements: 67 Credit Hours					
CIV 102	Computer-Aided Drawing	CIV 104	Introduction to Civil Engineering	CIV 205	Introduction to Geomatics
CIV 201	Statics	CIV 242	Fluid Mechanics	CIV 242L	Fluid Mechanics Lab
CIV 206	Mechanics of Materials	CIV 314	Structural Analysis	CIV 313	Construction Materials
CIV 313L	Construction Materials Lab	CIV 343	Hydraulics	CIV 331	Highway Engineering
CIV 332	Fundamentals of Transportation Engineering	CIV 324	Geotechnical Engineering	CIV 324L	Geotechnical Engineering Lab
CIV 316	Structural Systems	CIV 352	Fundamentals of Environmental Engineering	CIV 362	Construction Management
CIV 413	Structural Steel Design	CIV 318	Reinforced Concrete Design I	CIV 421	Foundation Engineering
CIV 442	Hydrology and Urban Systems	CIV 398i	Internship in Civil Engineering 1	CIV 399i	Internship in Civil Engineering 2
CIV 497	Capstone Design Project I	CIV 498	Capstone Design Project II		
Major Electives: 6 Credit Hours					
CIV 405	Sustainability in the Built Environment	CIV 403	Fundamentals of Geographic Information Systems	CIV 430	Traffic Engineering
CIV 416	Matrix Methods of Structural Analysis	CIV 490	Special Topics in Civil Engineering	CIV 419	Computer-Aided Structural Engineering
CIV 428	Slope Stability and Earth Structures				
Open Elective: 3 Credit Hours					
OE	Open Elective ²				

² Civil engineering students are required to take any three-credit hour course from a major other than civil engineering.



BACHELOR OF SCIENCE IN CIVIL ENGINEERING



Program Overview

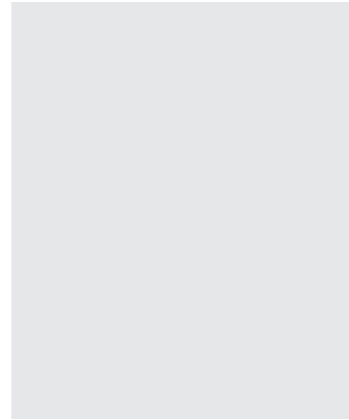
Civil engineering is about the planning, design, construction, and operation of facilities essential to modern life ranging from bridges to transit systems. Civil engineers are problem solvers, meeting the challenges of community planning, water supply, structures, traffic congestion, energy needs, pollution, and infrastructure improvements. Societal needs, protection, and restoration of the environment, as well as economic conditions and public safety, are paramount in work carried out by civil engineers. High-tech tools such as computer-aided design (CAD), geographical information systems (GIS), and 3-D computer modeling are a necessity in all areas of civil engineering.

Graduates of the civil engineering program are prepared to pursue postgraduate degrees in civil engineering as well as in other fields, such as business, management, and law.

The educational mission of the Bachelor of Science in Civil Engineering is to provide students with a multidisciplinary curriculum that is fundamental, yet broad and flexible. The program aims to produce graduates who are well-rounded in mathematical, scientific, and technical knowledge and who can analyze, evaluate, and design civil engineering systems. They will also have the ability to communicate effectively, have experienced meaningful opportunities for undergraduate research, and have acquired an understanding and appreciation for global and societal issues, preparing them for leadership positions in industry, government, and academia.

The Bachelor of Science in Civil Engineering is accredited by the Engineering Accreditation Commission of ABET, as well as the UAE Commission for Academic Accreditation.

Furthermore, our B.Sc. program in Civil Engineering offers you the opportunity to earn a master's degree from prestigious universities through our unique 3+2 program with the University of Illinois at Urbana-Champaign in the USA as well as our 4+1 pathway program with Trinity College Dublin in Ireland.



Student's Testimonial

Sven Ivak - Alumni, Bachelor of Science in Civil Engineering

Abu Dhabi University has greatly impacted my life, both on a personal and professional level, shaping me into a person of the future and of the community. The supportive faculty from ADU's Civil Engineering Department have provided me with plentiful topics, research, and studies in various industrial fields, and have provided the necessary skills to develop my career further. I am grateful that I was taught by excellent faculty, surrounded by supportive staff, and other aspiring and dedicated students at ADU.



Career Prospects

- Apply knowledge of mathematics, science, and engineering
- Design and conduct experiments, as well as analyze and interpret data
- Design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- Function in multidisciplinary teams
- Identify, formulate, and solve civil engineering problems
- Understand professional and ethical responsibilities
- Communicate effectively
- Obtain the broad education necessary to understand the impact of engineering solutions in global, economic, environmental, and societal contexts, especially under the current global climate change conditions

