Curriculum

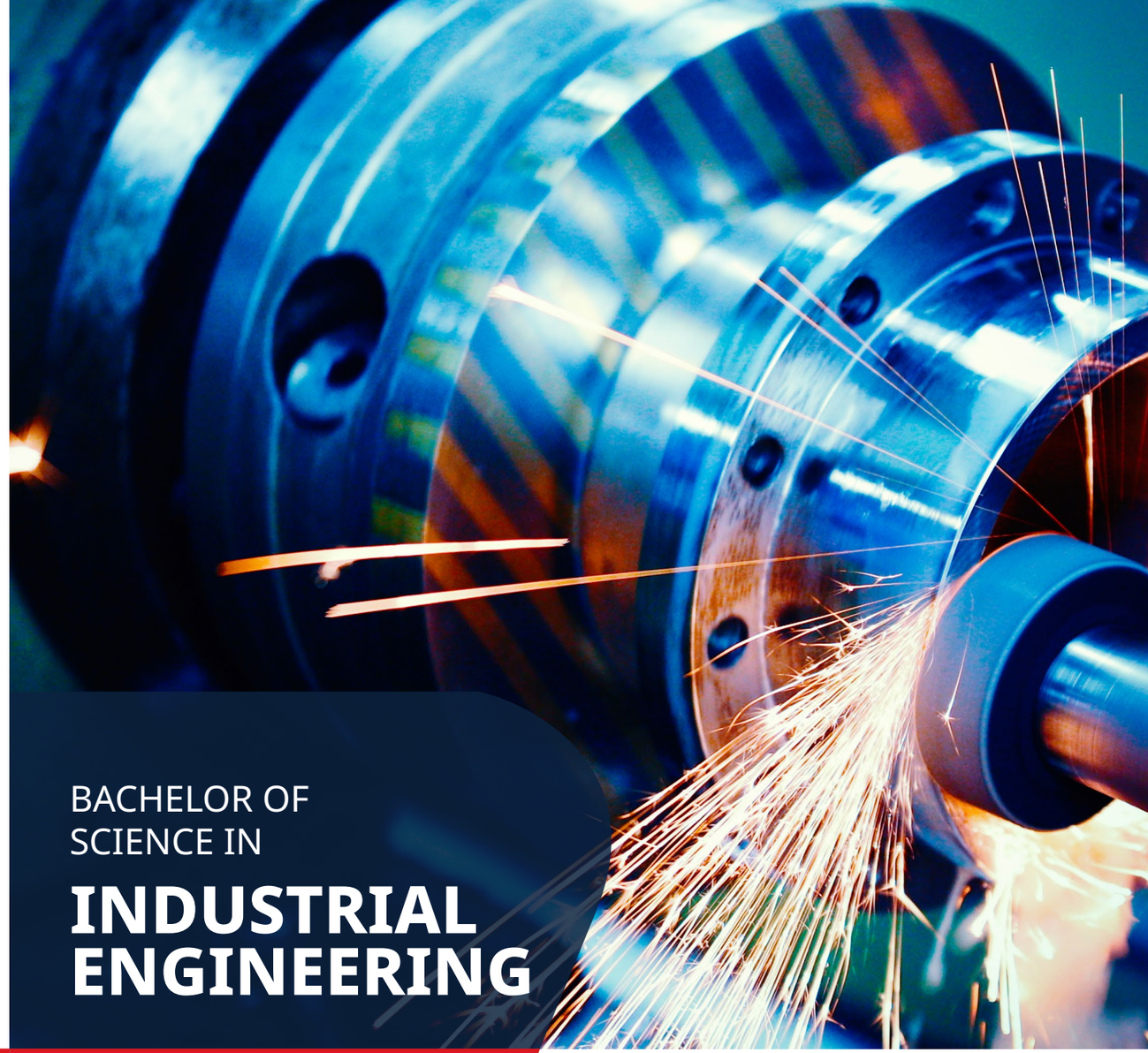
COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
General Education Requirements: 27 Credit Hours					
ARL 101(A)	Communication Skills in Arabic I	ENG 200	English II	FWS 305	Technical Communications for Workplace
FWS 310	Fundamentals of Innovations and Entrepreneurship	ISL 100(A)	Islamic Culture	MTT 102	Calculus 1
FWS 205	UAE and GCC Society	STT 100	General Statistics	FWS 100(E)	Academic Skills for Success
Degree Requirements: 35 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	MEC 130	Introduction to Mechanical & Industrial Engineering	CSC 201	Structured Programming
COE 202	Engineering Ethics, Economy and Law	GEN 101	Introductory Artificial Intelligence		
Major Requirements: 67 Credit Hours					
CIV 201	Statics	MIS 200	Introduction to Management Information Systems	IEN 220	Probability and Statistics
MEC 300	Materials Science	MEC 301	Manufacturing Processes	IEN 310	Ergonomics & Work Measurement
MEC 310	Dynamics	IEN 311	Ergonomics & Work Measurement lab	IEN 320	Engineering Data Analysis
MEC 320	Thermodynamics I	IEN 330	Operations Research I	MEC 330	Computer Aided Drawing
IEN 340	Quality Engineering	MEC 340	Mechanical Engineering design	IEN 350	Facilities Planning and Asset Management
MEC 350	Fluid Mechanics	IEN 360	Production Planning & Inventory Control	IEN 400	Modeling & Simulation
IEN 401	Modeling & Simulation lab	IEN 402	3D Printing and Additive Manufacturing	IEN 420	Environmental & Safety Engineering
MEC 332	Design and manufacturing lab	IEN 440	Operations Research II	IEN 398i	Internship 1
IEN 399i	Internship 2	IEN 498	Capstone Design Project I	IEN 499	Capstone Design Project II
Major and Open Electives: 9 Credit Hours					
ME1	Major Elective I	BE1	Business Elective 1	BE2	Business Elective 2

COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
Major Elective Basket*					
IEN 450	Maintenance Management	MGT 411	Project Management	MEC 471	Introduction to Computer Aided Manufacturing
IEN 470	Supply Chain Management	IEN 480	Special Topic in Industrial Engineering		

*Students need to choose one course from Major Electives.

COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE	COURSE CODE	COURSE TITLE
Business Elective Basket*					
ACC 200	Principles of Financial Accounting	MKT 200	Principles of Marketing	MIS 304	Business System Analysis and Design
MGT 255	Management and Organizational Behavior	MGT 314	Entrepreneurship Management	HRM 422	Management & Leadership Development
BUS102	Introduction to Business	BUS204	Business Research Methods	ECO201	Principles of Microeconomics

*Students need to choose two courses from Business Electives.



BACHELOR OF SCIENCE IN

INDUSTRIAL ENGINEERING

جامعة أبوظبي
Abu Dhabi University
College of Engineering

Program Overview

Industrial Engineering is concerned with the optimization of complex processes, systems, or organizations. This is done through the development, improvement and implementation of integrated systems of people, money, materials, equipment, and energy. It is an engineering approach to the detailed analysis of the use and cost of these resources. Industrial Engineers play a pivotal role in increasing productivity and profit, improving quality, and streamlining operations.

This program combines natural sciences, mathematics, computing, social sciences, and management with mechanical engineering and design. You will study courses in 3D Printing/Additive Manufacturing, Facilities Planning & Asset Management, Project & Supply Chain Management, Entrepreneurship, and Environmental & Safety Engineering in state-of-the-art industrial engineering laboratories and mechanical engineering facilities.

Student's Testimonial

Eng. Mohammed Alavi

Joining the Mechanical and Industrial Engineering department was always my dream due to my passion and interest in turbomachinery, automobiles, and mechatronics. I had accomplished my dream successfully when I graduated from Abu Dhabi University with Bachelor of Science in Mechanical Engineering. This great achievement wouldn't have been possible without the help of highly qualified faculty, their incredible teaching style, and support. The program at Abu Dhabi University with excellent quality of academic curriculum prepared me to excel my skills, knowledge, and developed me to work environment as well as to pursue higher studies. While studying at Abu Dhabi University, I also had the opportunity to participate on major research projects, and competitions held in the region. Moreover, I would like to highlight that the faculty members support, guide, and help in publishing the papers and project works in journals and conferences which I cannot see in other universities.

Career Prospects

Industrial engineers will find employment in a variety of organizations in both the public and private sectors. They are in high demand due to the versatility of their skills and their technical and management capabilities. Industrial engineers can also work in the following areas:

- Operations Research
- Systems Engineering
- Manufacturing Engineering
- Production Engineering
- Management Engineering
- Financial Engineering
- Ergonomics/Human Factors Engineering
- Safety Engineering

Graduates of the program will be able to:

- Develop methods to improve operations and control production costs, improve the quality of products and services, ensure worker health and safety, protect the environment, and comply with government regulations
- Design and conduct experiments, and analyze and interpret data
- Design sustainable systems, components, and processes to meet desired needs within constraints such as economic, environmental, social, political, ethical, health & safety, and manufacturability
- Identify, formulate, and solve industrial engineering problems
- Understand the impact of engineering solutions in a global and societal context
- Use techniques, skills, and modern engineering tools necessary for engineering practices