

## Bachelor of Science in Industrial Engineering

Study Plan (Fall Start)  
First Year (Freshman)

Total Credit Hours: 136

Semester 1

Code	Title	Cr.	Prerequisite
ARL 100(A)	Communication Skills in Arabic I	3	nil
ENG 200	English II	3	EPT/ENG102+UNS102 (Co-req)
STT 100	General Statistics	3	nil
UNS 102	University Study Skills	1	nil
MTT 102	Calculus I	3	MTT 101 (C grade) or MPT
MEC 130	Introduction to Mech& Industrial Engineering	2	nil

**Total Credit Hours 15**

Semester 2

Code	Title	Cr.	Prerequisite
FWS 205	UAE and GCC Society	3	ENG102+UNS102 (Co-req)
ISL100	Islamic Culture	3	nil
MEC 330	Computer Aided Drawing	2	MEC 130
PHY 102	Physics and Engineering Applications I	3	MTT 102
PHY 102 L	Physics and Engineering Applications I Lab	1	MTT 102+PHY 102 (co-req)
MTT 200	Calculus II	3	MTT 102
MIS 200	Introduction to Management Information System	3	ENG 200 + ITD100 or equivalent

**Total Credit Hours 18**

Second Year (Sophomore)

Semester 3

Code	Title	Cr.	Prerequisite
GEN 201	Engineering Economy	2	ENG 200 + MTT 102
MTT 201	Calculus III	3	MTT 200
CSC 201	Structured Programming	3	MTT 102
PHY 201	Physics and Engineering Applications II	3	PHY 102
PHY 201 L	Physics and Engineering Applications II Lab	1	PHY 102+PHY201(co-req)
CHE 205	Chemistry	3	ENG 200
CHE 201 L	Chemistry Lab	1	ENG200+CHE205(co-req)

**Total Credit Hours 16**

Semester 4

Code	Title	Cr.	Prerequisite
CIV 201	Statics	3	MTT 102, PHY102
MEC 300	Materials Science	3	CHE 205
MEC 320	Thermodynamics I	3	PHY 102
IEN 220	Probability and Statistics	3	STT 100
MTT 204	Introduction to Linear Algebra	3	MTT 200
MTT 205	Differential Equations	3	MTT 200 + MTT 204 (co-requisite)

**Total Credit Hours 18**

Third Year (Junior)

Semester 5

Code	Title	Cr.	Prerequisite
IEN 310	Ergonomics & Work Measurement	3	STT 100
IEN 311	Ergonomics & Work Measurement Lab	1	IEN 310(co-req)
MEC 310	Dynamics	3	CIV 201, MTT204
FWS305	Technical Communications for Workplace	3	ENG200 + Compl of 45 chrs
MEC 340	Machine Design I	3	MEC 330, MEC300
MEC 350	Fluid Mechanics	3	CIV 201, MTT205

**Total Credit Hours 16**

Semester 6

Code	Title	Cr.	Prerequisite
IEN 320	Engineering Data Analysis	2	IEN 220 + MTT204
MEC 301	Manufacturing Processes	3	MEC 300
IEN 330	Operations Research I	3	IEN 220 + MTT204
IEN 340	Quality Engineering	3	IEN 220
MEC 432	Design and Manufacturing Lab	1	MEC 301 (co-req)
IEN 350	Facilities Planning and Asset Management	3	MEC 330
IEN 420	Environmental and Safety Engineering	3	IEN 310

**Total Credit Hours 18**

Summer Semester

Code	Title	Cr.	Prerequisite
IEN 399i	Internship	3	90 Credit Hours

Fourth Year (Senior)

Semester 7

Code	Title	Cr.	Prerequisite
IEN 402	3D Printing and Additive Manufacturing	3	MEC 301
IEN 360	Production Planning and Inventory Control	3	IEN 330
IEN 400	Modeling and Simulation	2	IEN 330 + MIS 200
IEN 401	Modeling and Simulation Lab	1	IEN 400(co-req)
IEN 440	Operations Research II	3	IEN 330
ME 1	Major Elective I	3	
IEN 498	Capstone Design Project I	1	Senior Level + MEC 340

**Total Credit Hours 16**

Semester 8

Code	Title	Cr.	Prerequisite
IEN 499	Capstone Design Project II	3	IEN 498
GEN 400	Engineering Ethics	1	Senior level
BE 1	Business Elective I	3	
BE 2	Business Elective II	3	
FWS 310	Fundamentals of Innovation & Entrepreneurship	3	ENG200 + Compl of 60chrs
OE 1	Open Elective	3	

**Total Credits Hours 16**