

1st Year

Fall	Course Code	Course-Title	CRHs
	CoE 100	Student Orientation and Academic Success	1
	CHM 101	General Chemistry I	3 (3-0-1)
	CHM 101 L	General Chemistry I Lab	1 (0-2-0)
	MAT 101	Calculus I	3 (3-0-0)
	PHU 103	Physics I	3 (3-0-1)
	PHU 103 L	Physics I Lab	1 (0-2-0)
	ENG 101	University Writing I	3 (3-0-0)
	AI 102	AI for Everyone: Foundation and Applications	3 (0-6-0)
Total			18

Spring	Course Code	Course-Title	CRHs
	SE 100	Programming for Engineers	3 (3-0-0)
	SE 100 L	Programming for Engineers Lab	1 (0-2-0)
	ME 201	Materials Science and Engineering	3 (3-1-0)
	ME 201 L	Materials Science and Engineering Lab.	1 (0-2-0)
	MAT 112	Calculus II	3 (3-0-0)
	PHU 124	Physics II	3 (3-2-1)
	PHU 124 L	Physics II Lab	1 (0-2-0)
	University Elective	Arts and Humanities Elective I	3 (3-0-0)
Total			18

3rd Year

Fall	Course Code	Course-Title	CRHs
	IE 301	Operations Research I	3 (3-0-0)
	IE 304	Production and Service Systems Planning I	3 (3-0-0)
	IE 307	Work Systems Analysis & Design	3 (3-0-0)
	IE 307 L	Work Systems Analysis & Design Lab	1 (0-2-0)
	IE 309	Human Factors and Ergonomics	3 (3-0-0)
	IE 309 L	Human Factors and Ergonomics Lab	1 (0-2-0)
	ENG 222	Technical Writing	3 (3-0-0)
Total			17

Spring	Course Code	Course-Title	CRHs
	IE 302	Operations Research II	3 (3-0-0)
	IE 305	Production and Service Systems Planning II	3 (3-0-0)
	IE 315	Engineering Economy and Cost Analysis	3 (3-0-0)
	IE 330	Simulation	3 (3-0-0)
	IE 330 L	Simulation Lab	1 (0-2-0)
	ME 308	Advanced Manufacturing Processes	3 (3-0-0)
ME 308 L	Advanced Manufacturing Processes Lab	1 (0-2-0)	
Total			17

Summer	Course Code	Course-Title	CRHs
	IE 390	Industrial Engineering Internship	0 (0-0-0)
Total			0

2nd Year

Fall	Course Code	Course-Title	CRHs
	ME 205	Introduction to Computer Aided Design	3 (3-0-0)
	ME 305	Manufacturing and Workshop Training	3 (3-0-0)
	ME 305 L	Manufacturing and Workshop Training Lab	1 (0-2-0)
	MAT 211	Calculus III	3 (3-0-0)
	MAT 212	Linear Algebra	3 (3-0-0)
MAT 213	Differential Equations	3 (3-0-0)	
Total			16

Spring	Course Code	Course-Title	CRHs
	EE 207	Foundations of Electrical Engineering	3 (3-0-1)
	EE 207 L	Foundations of Electrical Engineering Lab	1 (0-2-0)
	ME 206	Thermal Fluids Engineering I	3 (3-0-0)
	ME 206 L	Thermal Fluids Engineering I Lab	1 (0-2-0)
	ME 238	Solid Mechanics for Engineers	3 (3-0-0)
	ME 238	Solid Mechanics for Engineers Lab	1 (0-2-0)
	MAT 224	Numerical Methods	3 (3-0-0)
	STA 212	Probability and Statistics	3 (3-0-0)
Total			18

4th Year

Fall	Course Code	Course-Title	CRHs
	IE 401	Network Models and Project Management	3 (3-0-0)
	IE 4**	Technical Elective	3 (3-0-0)
	IE 4**	Technical Elective	3 (3-0-0)
	IE 495	Industrial Engineering Capstone Project I	3 (0-6-0)
	University Elective	Social Sciences Elective I	3
Total			15

Spring	Course Code	Course-Title	CRHs
	IE 499	Ethics and Professional Development	1
	IE 406	Quality Engineering	3 (3-0-0)
	IE 4**	Technical Elective	3 (3-0-0)
	IE 496	Industrial Engineering Capstone Project II	3 (0-6-0)
	University Elective	Social Sciences Elective II	3 (2-0-0)
Total			13

Alfaisal University – Bachelor of Industrial Engineering
Prerequisites Chart (Effective Fall 2026)

