

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 1	ENG26111	General English-1	Required	-	4	College
	CI26101	Communication Skills	Required	-	2	Institution
	SLM26101	Introduction to Islamic Culture	Required	-	2	Institution
	CCS26101	Computer Skills	Required	-	2	Institution
	PHYS26114	General Physics	Required	-	4	College
	ARB26101	Arabic Language Skills	Required	-	2	Institution
Level 2	ENG26114	General English-2	Required	ENG26111	4	College
	PSY26101	Learning and Thinking Skills	Required	-	2	Institution
	SLM26102	Family & Community in Islam	Required	-	2	Institution
	CHM26113	General Chemistry	Required	-	4	College
	MATH26111	Calculus 1	Required	-	3	College
Level 3	ENG26121	English for Special Purposes	Required	ENG26114	4	College
	PHYS26211	Advanced Physics	Required	PHYS26101	3	College
	MATH26211	Differentiation and Integration-1	Required	MATH26101	3	College
	MATH26212	Algebra and Analytical Geometry	Required	-	3	College
	ME26221	Engineering Drawing	Required	-	3	Program
	ME26222	Production Technology and Workshops	Required	-	2	Program
	BUA26201	Volunteer Work	Required	-	1	Institution

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 4	MATH26213	Differentiation and Integration-2	Required	MATH26211	3	College
	CE26221	Engineering Mechanics	Required	-	3	Program
	EE26221	Introduction to Engineering Design	Required	-	2	Program
	EE26328	Electrical Engineering and Electronics	Required	PHYS26211	3	Program
	ME26223	Materials Science and Engineering	Required	PHYS26114 CHM26113	3	Program
	ME26231	Computer Aided Drawing and Drafting	Required	ME26221	3	Program
Level 5	*****	University Elective Course	Elective	-	2	Institution
	BUA26202	Entrepreneurship	Required	-	1	Institution
	MATH26314	Differential Equations	Required	MATH26213	3	College
	EE26324	Computer Programming	Required	MATH26212	3	Program
	IE26322	Engineering Statistics and Probability	Required	MATH26211	3	Program
	IE26351	Industrial Operations Research-1	Required	MATH26213	3	Program
Level 6	IE26352	Measurement and Instrumentation	Required	EE26328	2	Program
	MATH26315	Numerical Analysis	Required	MATH26314	3	College
	IE26321	Industrial Operations Management	Required	-	2	Program
	IE26324	Mechanics of Materials	Required	CE26221	2	Program
	IE26331	Work Analysis and Design	Required	-	2	Program
	IE26334	Manufacturing Processes-1	Required	-	3	Program
	IE26353	Design and Analysis of Experiments	Required	IE26322	2	Program
Level 7	IE26354	Industrial Operations Research-2	Required	IE26351	3	Program
	ME26456	Thermodynamics, Fluid Mechanics, and Heat Transfer	Required	PHYS26211	3	Program
	IE26432	Engineering Reliability and Maintenance	Required	IE26322	2	Program
	IE26433	Human Factors Engineering	Required	IE26331	2	Program
	IE26443	Manufacturing Processes-2	Required	IE26334	3	Program
	IE26452	Inventory Control	Required	IE26321	2	Program
	IE26454	Supply Chain and Operations Engineering	Required	IE26354	2	Program
Level	IE26463	Computer Applications in Industrial Engineering	Required	EE26324	2	Program
	CE26471	Principles of Scientific Research in Engineering	Required	-	2	Program

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8	IE26423	Engineering Economics	Required	-	2	Program
	IE26436	Safety Engineering	Required	-	2	Program
	IE26442	Mechanical Design	Required	CE26221	3	Program
	IE26455	Quality Engineering	Required	IE26322	2	Program
	IE26471	Field Training-1	Required	Passing 110 credit hours	4	Program
Level 9	IE26524	Engineering Project Management	Required	-	2	Program
	IE26544	CAD/CAM	Required	ME26231 IE26443	3	Program
	IE26562	Engineering Risk Analysis	Required	IE26322	2	Program
	IE26565	Industrial Systems Modeling and Simulation	Required	IE26354	2	Program
	IE265**	Elective Course-1	Elective	-	3	Program
	IE26572	Field Training-2	Required	Passing 120 credit hours	4	Program
Level 10	IE26573	Graduation Project-1	Required	Completion of 75% of the Plan Hours	1	Program
	IE26534	Industrial Facility Planning and Design	Required	IE26433	2	Program
	IE26545	Computer Integrated Manufacturing	Required	IE26443	2	Program
	IE26561	Automatic Control Systems	Required	MATH26314	3	Program
	IE26546	Manufacturing Systems	Required	IE26544	2	Program
	IE265**	Elective Course-2	Elective	-	3	Program
	IE26574	Graduation Project-2	Required	IE26573	3	Program

#### List of Elective Courses:

##### 1- University Elective Course:

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 5	SLM26103	Economy in Islam	Elective	-	2	Institution
	SLM26104	Contemporary Issues	Elective	-	2	Institution
	ARB26102	Arabic Editing	Elective	-	2	Institution
	HIS26201	History of the Kingdom of Saudi Arabia	Elective	-	2	Institution
	HIS26211	Studies in Biography of the Prophet	Elective	-	2	Institution
	ENG26224	Writing for Specific Purpose	Elective	-	2	Institution
	MDS26201	Health and Fitness	Elective	-	2	Institution

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	EDU26201	Youth and the Values of Citizenship	Elective	-	2	Institution
	TEC26212	E-Learning Applications	Elective	-	2	Institution

2- Elective Courses -1, -2, and -3:

Level	Course Code	Course Title	Required or Elective	Pre-Requisite Courses	Credit Hours	Type of requirements (Institution, College, or Program)
Level 9	Elective Course -1					
	IE26537	Industry and Environment	Elective	-	3	Program
	IE26548	Introduction to Nanotechnology	Elective	-	3	Program
	IE26549	Advanced Manufacturing Processes	Elective	-	3	Program
	IE26557	Statistical Quality Control	Elective	-	3	Program
	IE26566	Materials Handling and Packaging	Elective	-	3	Program
Level 10	Elective Course -2 and Elective Course -3					
	IE26558	Manufacturing Cost Analysis	Elective	-	3	Program
	IE26559	Total Quality Management	Elective	-	3	Program
	IE26567	Advanced Computer Applications in Industrial Engineering	Elective	-	3	Program
	IE26568	Product Design and Innovation	Elective	-	3	Program
	IE26569	Information Technology and Networks	Elective	-	3	Program