



## B.S. in Electrical Engineering (EE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	ENGL 102	GS	Introduction to Report Writing	3	0	3
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PE 101	GS	Health and Physical Education I	0	2	1
						PHYS 102	MS	General Physics II	3	3	4
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>7</b>						<b>8</b>					
<b>17</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 202	CR	Digital Logic Design	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
EE 201	CR	Electric Circuits I	3	0	3	EE 203	CR	Electronics I	3	0	3
ENGL 214	GS	Academic & Professional Comn.	3	0	3	EE 207	CR	Signals & Systems	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3	EE 213	CR	Electric Circuits II	2	0	2
MATH 201	MS	Calculus III	3	0	3	EE 271	CR	Electric Circuits II lab	0	3	1
						EE 272	CR	Analog and Digital Electronics Lab	0	3	1
						MATH 208	MS	Elem. Diff. Equations	3	0	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>0</b>						<b>6</b>					
<b>15</b>						<b>16</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
EE 303	CR	Electronics II	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
EE 315	MS	Prob. Methods for EE	3	0	3	EE 311	CR	Fundamentals of EE Design	3	0	3
EE 360	CR	Elec. Energy Eng.	3	0	3	EE 340	CR	Electromagnetic Waves & Applic.	3	0	3
EE 390	CR	Digital Sys. Eng.	3	0	3	EE 370	CR	Communications Eng.	3	0	3
EE 3xx	CE	Lab Elective I	0	3	1	EE 380	CR	Control Eng.	3	0	3
PHYS 305	MS	Electricity And Magnetism I	3	0	3	EE 3xx	CE	Lab Elective II	0	3	1
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15</b>					
<b>3</b>						<b>5</b>					
<b>16</b>						<b>17</b>					

### Summer Training

EE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
EE 3xx	CE	Lab Elective III	0	3	1	EE 411	CR	Senior Design Project	1	6	3
EE 4xx	CE	EE Elective I	3	0	3	EE 4xx	CE	EE Elective III	3	0	3
EE 4xx	CE	EE Elective II	3	0	3	EE 4xx	CE	EE Elective IV	3	0	3
GS xxx	GS	GS Elective	3	0	3	EE 4xx	CE	Lab Elective I	0	3	1
IAS 212	GS	Professional Ethics	2	0	2	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
XXX xxx	MS	Science Elective	3	0	3	XE xxx	TE	Technical Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>12</b>					
<b>3</b>						<b>9</b>					
<b>15</b>						<b>15</b>					

**Total Credit Hours 128**

MS	Math and Science	35
GS	General Studies	22
CR	Core Subjects	40
CE	Core Electives	16
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>56</b>
<b>Total Engineering (Total Core+EN)</b>		<b>56</b>

## B.S. in Applied Electrical Engineering (AEE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	ENGL 102	GS	Introduction to Report Writing	3	0	3
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PE 101	GS	Health and Physical Education I	0	2	1
						PHYS 102	MS	General Physics II	3	3	4
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>7</b>						<b>8</b>					
<b>17</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 202	CR	Digital Logic Design	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
EE 201	CR	Electric Circuits I	3	0	3	EE 203	CR	Electronics I	3	0	3
ENGL 214	GS	Academic & Professional Comm.	3	0	3	EE 207	CR	Signals & Systems	3	0	3
IAS 212	GS	Professional Ethics	2	0	2	EE 213	CR	Electric Circuits II	2	0	2
ISE 291	DF	Intro. to Data Science	3	0	3	EE 271	CR	Electric Circuits II lab	0	3	1
MATH 201	MS	Calculus III	3	0	3	EE 272	CR	Analog and Digital Electronics Lab	0	3	1
						IAS xxx	GS	Islamic/Arabic Elective	2	0	2
						MATH 208	MS	Elem. Diff. Equations	3	0	3
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>16</b>					
<b>0</b>						<b>6</b>					
<b>17</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
EE 303	CR	Electronics II	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
EE 315	MS	Prob. Methods for EE	3	0	3	EE 311	CR	Fundamentals of EE Design	3	0	3
EE 360	CR	Elec. Energy Eng.	3	0	3	EE 340	CR	Electromagnetic Waves & Applic.	3	0	3
EE 390	CR	Digital Sys. Eng.	3	0	3	EE 370	CR	Communications Eng.	3	0	3
EE 3xx	CE	Lab Elective I	0	3	1	EE 380	CR	Control Eng.	3	0	3
EE 3xx	CE	Lab Elective II	0	3	1	XXX xxx	MS	Science Elective	3	0	3
PHYS 305	MS	Electricity And Magnetism I	3	0	3	CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>18</b>					
<b>6</b>						<b>2</b>					
<b>17</b>						<b>19</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
EE 398	CR	Electrical Engineering Internship	0	0	6	EE 3xx	CE	Lab Elective III	0	3	1
						EE 411	CR	Senior Design Project	1	6	3
						EE 4xx	CE	EE Elective I	3	0	3
						EE 4xx	CE	EE Elective II	3	0	3
						XE xxx	TE	Technical Elective	3	0	3
						EE 4xx	CE	Lab Elective I	0	3	1
						GS xxx	GS	GS Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>13</b>					
<b>0</b>						<b>12</b>					
<b>6</b>						<b>17</b>					

**Total Credit Hours 128**

MS	Math and Science	35
GS	General Studies	22
CR	Core Subjects	46
CE	Core Electives	10
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>56</b>
<b>Total Engineering (Total Core+EN)</b>		<b>56</b>

## B.S. in Chemical Engineering (CHE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	CHEM 102	MS	General Chemistry II	3	4	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Introduction to report writing	3	0	3
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15 10 18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHE 200	CR	Principles of Chem. Engineering	3	2	3	CHE 204	CR	Fluid Mechanics	3	0	3
CHEM 201	MS	Organic Chemistry I	3	4	4	CHE 212	CR	Intro. to Chem Engg. Comp.	1	3	2
IAS 111	GS	Belief & Its Consequences	2	0	2	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3	ENGL 214	GS	Academic & Professional Comn.	3	0	3
MATH 201	MS	Calculus III	3	0	3	MATH 202	MS	Elements of Diff. Eq.	3	0	3
						ME 207	MS	Materials Science for CHE	2	0	2
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15 3 16</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHE 300	CR	Heat Transfer	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
CHE 303	CR	Chemical Engineering Therm.	3	0	3	CHE 306	CR	Separation Processes	3	0	3
CHE 304	CR	Mass Transfer	3	0	3	CHE 309	CR	Chem. Engg Lab I	0	6	2
CHEM 311	MS	Physical Chemistry II	3	4	4	CHE 360	CR	Numerical Methods in Chem. Engg	3	0	3
IAS 212	GS	Professional Ethics	2	0	2	STAT 319	MS	Probability & Stats. for Engrs.	2	3	3
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>11 11 15</b>					

### Summer Training

CHE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHE 401	CR	Process Dynamics and Control	3	0	3	CHE 409	CR	Chem. Engg Lab II	0	6	2
CHE 402	CR	Kinetics & Reactor Design	3	0	3	CHE 412	CR	Integrated Design Course	1	6	3
CHE 405	CR	Process Design & Econ.	3	0	3	CHE 4xx	CE	Chem. Engg. Elective II	3	0	3
CHE 4xx	CE	Chem. Engg. Elective I	3	0	3	GS xxx	GS	GS Elective	3	0	3
XXX xxx	EN	Engineering Elective	3	0	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
						XXX xxx	FE	General Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>12 12 16</b>					

**Total Credit Hours 128**

MS	Math and Science	43
GS	General Studies	22
CR	Core Subjects	39
CE	Core Electives	6
EN	Engineering Electives	3
TE	Technical Electives	0
FE	Free Electives	3
DF	Digital/Business Foundation	12

**Total 128**

**Total Core (CR+CE) 45**

**Total Engineering (Total Core+EN) 48**

## B.S. in Applied Chemical Engineering (ACHE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	CHEM 102	MS	General Chemistry II	3	4	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Introduction to report writing	3	0	3
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15 10 18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHE 200	CR	Principles of Chem. Engineering	3	2	3	CHE 204	CR	Fluid Mechanics	3	0	3
CHEM 201	MS	Organic Chemistry I	3	4	4	CHE 212	CR	Intro. to Chem Engg. Comp.	1	3	2
ENGL 214	GS	Academic & Professional Comn.	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
IAS 111	GS	Belief & Its Consequences	2	0	2	IAS 212	GS	Professional Ethics	2	0	2
ISE 291	DF	Intro. to Data Science	3	0	3	MATH 202	MS	Elements of Diff. Eq.	3	0	3
MATH 201	MS	Calculus III	3	0	3	ME 207	MS	Materials Science for CHE	2	0	2
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>14 3 15</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHE 300	CR	Heat Transfer	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
CHE 303	CR	Chemical Engineering Therm.	3	0	3	CHE 306	CR	Separation Processes	3	0	3
CHE 304	CR	Mass Transfer	3	0	3	CHE 309	CR	Chem. Engg Lab I	0	6	2
CHEM 311	MS	Physical Chemistry II	3	4	4	CHE 360	CR	Numerical Methods in Chem. Engg	3	0	3
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	GS xxx	GS	GS Elective	3	0	3
STAT 319	MS	Probability & Stats. for Engrs.	2	3	3	XXX xxx	FE	General Elective	3	0	3
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>16</b>						<b>15 8 18</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHE 398	CR	Internship	0	0	6	CHE 401	CR	Process Dynamics and Control	3	0	3
						CHE 402	CR	Kinetics & Reactor Design	3	0	3
						CHE 405	CR	Process Design and Econ.	3	0	3
						CHE 409	CR	Chem. Engg Lab II	0	6	2
						CHE 412	CR	Integrated Design Course	1	6	3
						CHE 4xx	CE	Chem. Engg. Elective I	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>13 12 17</b>					

**Total Credit Hours 128**

MS	Math and Science	43
GS	General Studies	22
CR	Core Subjects	45
CE	Core Electives	3
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	3
DF	Digital/Business Foundation	12

**Total 128**

**Total Core (CR+CE) 48**

**Total Engineering (Total Core+EN) 48**

## B.S. in Mechanical Engineering (ME)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	ENGL 102	GS	Introduction to report writing	3	0	3
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>9</b>						<b>6</b>					
<b>18</b>						<b>16</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 202	CE	Statics & Strength of Materials	3	0	3	ENGL 214	GS	Academic & Professional Comn.	3	0	3
MATH 201	MS	Calculus III	3	0	3	ISE 291	DF	Intro. to Data Science	3	0	3
ME 203	CR	Thermodynamics I	3	0	3	MATH 202	MS	Elem. Diff. Equations	3	0	3
ME 210	CR	ME Drawing & Graphics	2	3	3	ME 201	CR	Dynamics	3	0	3
ME 216	CR	Materials Science and Eng.	3	0	3	ME 204	CR	Thermodynamics II	3	0	3
ME 217	CR	Mat. Sci. and Eng. Lab	0	3	1	ME 218	CR	Intro. ME Design	1	3	2
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>16</b>					
<b>6</b>						<b>3</b>					
<b>16</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 292	DF	Intro. to Artificial Intelligence	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
EE 234	CE	EE Principles and Applications	3	3	3	CGS 392	GS	Career Essentials	0	2	1
EE 235	CE	EE Principles and Applications Lab	0	3	1	IAS 212	GS	Professional Ethics	2	0	2
ME 301	CR	Machine Design I	3	0	3	STAT 319	MS	Prob. & Stat. for Engineers	2	3	3
ME 311	CR	Fluid Mechanics	3	0	3	ME 302	CR	Machine Design II	3	0	3
ME 322	CR	Manufacturing Processes	3	0	3	ME 303	CR	Mechanical System Design	0	3	1
ME 323	CR	Manufacturing Lab	0	3	1	ME 315	CR	Heat Transfer	3	0	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>13</b>					
<b>9</b>						<b>11</b>					
<b>17</b>						<b>17</b>					

### Summer Training

ME 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 371	MS	Intro. Numerical Methods	3	0	3	GS xxx	GS	GS Elective	3	0	3
ME 401	CR	System Dynamics & Control	3	0	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
ME 402	CR	Measurements & Control Lab	0	3	1	ME 412	CR	Senior Design Project II	0	6	2
ME 411	CR	Senior Design Project I	1	0	1	ME 4xx	CE	ME Elective III	3	0	3
ME 4xx	CE	ME Elective I	3	0	3	XE xxx	TE	Technical Elective	3	0	3
ME 4xx	CE	ME Elective II	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>11</b>					
<b>3</b>						<b>6</b>					
<b>14</b>						<b>13</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	43
CE	Core Electives	16
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>59</b>
<b>Total Engineering (Total Core+EN)</b>		<b>59</b>

## B.S. in Applied Mechanical Engineering (AME)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	ENGL 102	GS	Introduction to report writing	3	0	3
ENGL 101	GS	Intro. Academic Discourse	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>9</b>						<b>6</b>					
<b>18</b>						<b>16</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 202	CE	Statics & Strength of Materials	3	0	3	EE 234	CE	EE Principles and Applications	3	0	3
ENGL 214	GS	Academic & Professional Writing	3	0	3	EE 235	CE	EE Principles and Applications Lab	0	3	1
MATH 201	MS	Calculus III	3	0	3	ISE 291	DF	Introduction to Data Science	3	0	3
ME 203	CR	Thermodynamics I	3	0	3	MATH 202	MS	Elem. Diff. Equations	3	0	3
ME 210	CR	ME Drawing & Graphics	2	3	3	ME 201	CR	Dynamics	3	0	3
ME 216	CR	Materials Science and Eng.	3	0	3	ME 204	CR	Thermodynamics II	3	0	3
ME 217	CR	Mat. Sci. and Eng. Lab	0	3	1	ME 218	CR	Intro. ME Design	1	3	2
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>16</b>					
<b>6</b>						<b>6</b>					
<b>19</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 292	DF	Intro. to Artificial Intelligence	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
IAS 212	GS	Professional Ethics	2	0	2	CGS 392	GS	Career Essentials	0	2	1
STAT 319	MS	Prob. & Stat. for Engineers	2	3	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
ME 301	CR	Machine Design I	3	0	3	MATH 371	MS	Intro. Numerical Methods	3	0	3
ME 311	CR	Fluid Mechanics	3	0	3	ME 302	CR	Machine Design II	3	0	3
ME 322	CR	Manufacturing Processes	3	0	3	ME 303	CR	Mechanical System Design Lab	0	3	1
ME 323	CR	Manufacturing Lab	0	3	1	ME 315	CR	Heat Transfer	3	0	3
<b>Total</b>						<b>Total</b>					
<b>16</b>						<b>14</b>					
<b>6</b>						<b>8</b>					
<b>18</b>						<b>17</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ME 398	CR	Internship Training	0	0	6	GS xxx	GS	GS Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>12</b>					
<b>0</b>						<b>12</b>					
<b>6</b>						<b>16</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	49
CE	Core Electives	13
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
DF	Digital/Business Foundation	12

**Total 128**

**Total Core (CR+CE) 62**

**Total Engineering (Total Core+EN) 62**

## B.S. in Aerospace Engineering (AE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry I	3	4	4	ENGL 102	GS	Intro. to Report Writing	3	0	3
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
PE 101	GS	Health and Physical Education I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>9</b>						<b>6</b>					
<b>18</b>						<b>16</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
AE 211	CR	Fundamentals of Thermo-fluids	3	0	3	AE 221	CR	Introduction to AE	2	3	3
ENGL 214	GS	Academic & Professional Comm.	3	0	3	AE 228	CR	Introduction AE Struct. & Mat	3	0	3
IAS 212	GS	Professional Ethics	2	0	2	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
MATH 201	MS	Calculus III	3	0	3	ME 201	CR	Dynamics	3	0	3
CE 201	CR	Statics	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>14</b>					
<b>0</b>						<b>3</b>					
<b>17</b>						<b>15</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ME 210	CR	ME Drawing and Graphics	2	3	3	AE 312	CR	Fundamentals of AE Design	1	0	1
AE 230	CR	AE Vehicle Performance	3	0	3	AE 325	CR	Gas Dynamics I	3	0	3
AE 313	CR	AE Systems and Control	2	3	3	AE 328	CR	Flight Structure I	3	0	3
AE 357	CR	AE Numerical Methods Lab	0	3	1	AE 333	CR	Aerodynamics I	3	0	3
MATH 371	MS	Intro. to Numerical Computing	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
XXX xxx	EN	Engineering Elective	3	0	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>15</b>					
<b>9</b>						<b>2</b>					
<b>16</b>						<b>16</b>					

### Summer Training

AE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
AE 412	CR	Senior Design	2	0	2	AE 422	CR	Flight Propulsion I	3	0	3
AE 421	CR	AE Lab	0	3	1	AE 426	CR	Flight Dynamics I	3	0	3
AE xxx	CE	AE Elective I	3	0	3	AE 427	CR	Aerospace Vehicle Design	3	0	3
AE xxx	CE	AE Elective II	3	0	3	XXX xxx	FE	Elective I	3	0	3
GS xxx	GS	GS Elective	3	0	3	XXX xxx	FE	Elective II	3	0	3
XXX xxx	MS	Science Elective	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>3</b>						<b>0</b>					
<b>15</b>						<b>15</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	47
CE	Core Electives	6
EN	Engineering Electives	3
TE	Technical Electives	0
FE	Free Electives	6
DF	Digital/Business Foundation	12

**Total 128**

**Total Core (CR+CE) 53**

**Total Engineering (Total Core+EN) 56**

## B.S. in Applied Aerospace Engineering (AAE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry I	3	4	4	ENGL 102	GS	Intro. to Report Writing	3	0	3
ENGL 101	GS	Intro. To Academic Discourse	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
PE 101	GS	Health and Physical Education I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>9</b>						<b>6</b>					
<b>18</b>						<b>16</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
AE 211	CR	Fundamentals of Thermo-fluids	3	0	3	AE 228	CR	Introduction to AE Struct. & Mat	3	0	3
AE 221	CR	Introduction to AE	2	3	3	AE 230	CR	AE Vehicle Performance	3	0	3
ENGL 214	GS	Academic & Professional Comm.	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3	IAS 212	GS	Professional Ethics	2	0	2
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
CE 201	CR	Statics	3	0	3	ME 201	CR	Dynamics	3	0	3
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>17</b>					
<b>3</b>						<b>0</b>					
<b>18</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ME 210	CR	ME Drawing and Graphics	2	3	3	AE 312	CR	Fundamentals of AE Design	1	0	1
AE 313	CR	AE Systems and Control	2	3	3	AE 333	CR	Aerodynamics I	3	0	3
AE 325	CR	Gas Dynamics I	3	0	3	AE 422	CR	Flight Propulsion I	3	0	3
AE 328	CR	Flight Structure I	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
AE 357	CR	AE Numerical Methods Lab	0	3	1	GS xxx	GS	GS Elective	3	0	3
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	XXX xxx	EN	Engineering Elective	3	0	3
MATH 371	MS	Intro. to Numerical Computing	3	0	3	CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>16</b>					
<b>9</b>						<b>2</b>					
<b>18</b>						<b>17</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
AE 398	CR	Aerospace Engineering Internship	0	0	6	AE 412	CR	Senior Design	2	0	2
						AE 421	CR	AE Lab	0	3	1
						AE 426	CR	Flight Dynamics I	3	0	3
						AE 427	CR	Aerospace Vehicle Design	3	0	3
						AE xxx	CE	AE Elective I	3	0	3
						AE xxx	CE	AE Elective II	3	0	3
						XXX xxx	MS	Science Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>17</b>					
<b>0</b>						<b>3</b>					
<b>6</b>						<b>18</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	53
CE	Core Electives	6
EN	Engineering Electives	3
TE	Technical Electives	0
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>

**Total Core (CR+CE) 59**

**Total Engineering (Total Core+EN) 62**

## B.S. in Civil Engineering (CE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	ENGL 102	GS	Intro. to Report Writing	3	0	3
ENGL 101	GS	Intro. To Academic Discourse	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PE 101	GS	Health and Physical Education I	0	2	1
						PHYS 102	MS	General Physics II	3	3	4
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>7</b>						<b>8</b>					
<b>17</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 201	CR	Statics	3	0	3	CE 203	CR	Structural Mechanics I	3	0	3
CE 216	CR	Computer Graphics	1	3	2	CE 204	CR	Civil Engineering Materials	3	0	3
CE 261	CR	Surveying I	1	3	2	CE 206	CR	Civil Engineering Materials Lab	0	3	1
ENGL 214	GS	Academic & Professional Comm.	3	0	3	CE 230	CR	Engineering Fluid Mechanics	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eqs. & Linear Algebra	3	0	3
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>6</b>						<b>3</b>					
<b>16</b>						<b>16</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
BUS 200	DF	Business & Entrepreneurship	3	0	3	GEOL/BIOL xxx	MS	Science Elective	2	3	3
CE 305	CR	Structural Analysis I	3	0	3	CE 315	CR	Reinforced Concrete I	2	3	3
CE 318	MS	Numerical & Stat.I Methods in CE	2	3	3	CE 354	CR	Intro. to Geotechnical Engineering	3	0	3
CE 330	CR	Environmental Eng. Principles	3	0	3	CE 356	CR	Geotechnical Engineering Lab	0	3	1
CE 375	CR	Environmental Chemistry Lab	0	3	1	CGS 392	GS	Career Essentials	0	2	1
IAS 212	GS	Professional Ethics	2	0	2	GS xxx	GS	GS Elective	3	0	3
						IAS xxx	GS	Islamic/Arabic Elective	2	0	2
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>12</b>					
<b>6</b>						<b>11</b>					
<b>15</b>						<b>16</b>					

### Summer Training

CE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 335	CR	Engineering Hydrology	2	3	3	CE 411	CR	Senior Design Project	1	6	3
CE 341	CR	Transportation Engineering	3	0	3	XXX xxx	FE	Free Elective	3	0	3
CE 343	CR	Transportation Engineering Lab	0	3	1	CE xxx*	CE	CE Design Elective I	3	0	3
CE 422	CR	Construct. Management & Economy	3	0	3	CE xxx**	CE	CE Design Elective II	3	0	3
CE xxx	CE	CE Elective I	3	0	3	XXX xxx	EN	Technical Elective	3	0	3
CE xxx	CE	CE Elective II	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>13</b>					
<b>6</b>						<b>6</b>					
<b>16</b>						<b>15</b>					

**Total Credit Hours 128**

\*CE 441 or 444 or 455

\*\*CE 437 or 471

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	44
CE	Core Electives	12
EN	Engineering Electives	3
TE	Technical Electives	0
FE	Free Electives	3
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>56</b>
<b>Total Engineering (Total Core+EN)</b>		<b>59</b>

## B.S. in Applied Civil Engineering (ACE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry	3	4	4	ENGL 102	GS	Intro. to Report Writing	3	0	3
ENGL 101	GS	Intro. To Academic Discourse	3	0	3	IAS 111	GS	Belief & its Consequences	2	0	2
IAS 121	GS	Language Foundation	2	0	2	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
PE 101	GS	Health and Physical Education I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>9</b>						<b>6</b>					
<b>18</b>						<b>16</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 201	CR	Statics	3	0	3	CE 203	CR	Structural Mechanics I	3	0	3
CE 216	CR	Computer Graphics	1	3	2	CE 204	CR	Civil Engineering Materials	3	0	3
CE 261	CR	Surveying I	1	3	2	CE 206	CR	Civil Engineering Materials Lab	0	3	1
IAS 212	GS	Professional Ethics	2	0	2	CE 230	CR	Engineering Fluid Mechanics	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3	CE 330	CR	Environmental Eng. Principles	3	0	3
MATH 201	MS	Calculus III	3	0	3	CE 375	CR	Environmental Chemistry Lab	0	3	1
MATH 208	MS	Intro. to Diff. Eqs. & Linear Algebra	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
<b>Total</b>						<b>Total</b>					
<b>16</b>						<b>15</b>					
<b>6</b>						<b>6</b>					
<b>18</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 305	CR	Structural Analysis I	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
CE 318	MS	Numerical & Stat.I Methods in CE	2	3	3	CE 315	CR	Reinforced Concrete I	2	3	3
CE 335	CR	Engineering Hydrology	2	3	3	CE 354	CR	Intro. to Geotechnical Engineering	3	0	3
CE 341	CR	Transportation Engineering	3	0	3	CE 356	CR	Geotechnical Engineering Lab	0	3	1
CE 343	CR	Transportation Engineering Lab	0	3	1	CGS 392	GS	Career Essentials	0	2	1
ENGL 214	GS	Academic & Professional Comm.	3	0	3	GEOL/BIOI xxx	MS	Science Elective	2	3	3
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	GS xxx	GS	GS Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>13</b>					
<b>9</b>						<b>11</b>					
<b>18</b>						<b>17</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 398	CR	Civil Engineering Internship	0	0	6	CE 411	CR	Senior Design Project	1	6	3
						CE 422	CR	Construct. Management & Economy	3	0	3
						CE xxx	CE	CE Elective	3	0	3
						CE xxx*	CE	CE Design Elective I	3	0	3
						CE xxx**	CE	CE Design Elective II	3	0	3
						XE xxx	TE	Technical Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>16</b>					
<b>0</b>						<b>6</b>					
<b>6</b>						<b>18</b>					

**Total Credit Hours 128**

\*CE 441 or 444 or 455

\*\*CE 437 or 471

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	50
CE	Core Electives	9
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>

**Total Core (CR+CE) 59**

**Total Engineering (Total Core+EN) 59**

## B.S. in Computer Science (CS)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
IAS 121	GS	Language Foundation	2	0	2	IAS 111	GS	Belief & Its Consequences	2	0	2
ICS 104	DF	Intro. to Programm. In Python & C	2	3	3	ICS 108	CR	Object Oriented Programing	3	3	4
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>8</b>						<b>6</b>					
<b>17</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 202	CR	Digital Logic Design	3	0	3	CHEM 101	MS	General Chemistry I	3	3	4
COE 203	CR	Digital Logic Laboratory	0	3	1	COE 301	CR	Computer Organization	3	3	4
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
ICS 202	CR	Data Structure & Algo.	3	3	4	ICS 253	MS	Discrete Structures I	3	0	3
MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3	MATH 201	MS	Calculus III	3	0	3
SWE 206	CR	Intro. To Software Engineering	2	3	3						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>9</b>						<b>6</b>					
<b>17</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
IAS 212	GS	Professional Ethics	2	0	2	BUS 200	DF	Business & Entrepreneurship	3	0	3
ICS 321	CR	Database Systems	3	0	3	ENGL 214	GS	Academic & Professional Comm.	3	0	3
ICS 343	CR	Fundament. of Cmpt. Networks	3	3	4	ICS 344	CR	Information Security	3	0	3
STAT 319	MS	Prob. & Stat. for Eng. & Scientists	3	2	3	ICS 353	CR	Design and Analysis of Algorithms	3	0	3
SWE 363	CR	Web Eng. & Development	3	0	3	ICS 381	CR	Principles of Artificial Intelligence	3	0	3
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>5</b>						<b>2</b>					
<b>15</b>						<b>16</b>					

### Summer Training

ICS 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ICS 410	CR	Programming Languages	3	0	3	GS xxx	GS	GS Elective	3	0	3
ICS 433	CR	Operating Systems	3	1	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
ICS/SWE xxx	CE	Major Elective I	3	0	3	ICS 411	CR	Senior Project	1	6	3
ICS/SWE xxx	CE	Major Elective II	3	0	3	ICS/SWE xxx	CE	Major Elective III	3	0	3
XE xxx	TE	Technical Elective	3	0	3	ICS/SWE xxx	CE	Major Elective IV	3	0	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>12</b>					
<b>1</b>						<b>6</b>					
<b>15</b>						<b>14</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	47
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>

**Total Core (CR+CE) 59**

**Total Engineering (Total Core+EN) 59**

## B.S. in Applied Computer Science (ACS)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
IAS 121	GS	Langue Foundation	2	0	2	IAS 111	GS	Belief & Its Consequences	2	0	2
ICS 104	DF	Intro. to Programm. In Python & C	2	3	3	ICS 108	CR	Object Oriented Programing	3	3	4
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>8</b>						<b>6</b>					
<b>17</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 202	CR	Digital Logic Design	3	0	3	CHEM 101	MS	General Chemistry I	3	3	4
COE 203	CR	Digital Logic Laboratory	0	3	1	COE 301	CR	Computer Organization	3	3	4
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
ICS 202	CR	Data Structure & Algo.	3	3	4	ICS 253	MS	Discrete Structures I	3	0	3
MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3	MATH 201	MS	Calculus III	3	0	3
SWE 206	CR	Intro. To Software Engineering	2	3	3						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>9</b>						<b>6</b>					
<b>17</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
GS xxx	GS	GS Elective	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
IAS 212	GS	Professional Ethics	2	0	2	ENGL 214	GS	Academic & Professional Comm.	3	0	3
ICS 321	CR	Database Systems	3	0	3	ICS 344	CR	Infromation Security	3	0	3
ICS 343	CR	Fundament. of Cmpter. Networks	3	3	4	ICS 353	CR	Design and Analysis of Algorithms	3	0	3
STAT 319	MS	Prob. & Stat. for Eng. & Scientists	3	2	3	ICS 381	CR	Principles of Artificial Intelligence	3	0	3
SWE 363	CR	Web Eng. & Development	3	0	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>17</b>					
<b>5</b>						<b>2</b>					
<b>18</b>						<b>18</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ICS 398	CR	Internship	0	0	6	ICS 410	CR	Programming Languages	3	0	3
						ICS 411	CR	Senior Project	1	6	3
						ICS 433	CR	Operating Systems	3	1	3
						ICS xxx	CE	Major Elective I	3	0	3
						ICS xxx	CE	Major Elective II	3	0	3
						ICS xxx	CE	Major Elective III	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>16</b>					
<b>0</b>						<b>7</b>					
<b>6</b>						<b>18</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	53
CE	Core Electives	9
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
DF	Digital/Business Foundation	12

**Total 128**

**Total Core (CR+CE) 62**

**Total Engineering (Total Core+EN) 62**

## B.S. in Software Engineering (SWE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
IAS 121	GS	Language Foundation	2	0	2	IAS 111	GS	Belief & Its Consequences	2	0	2
ICS 104	DF	Intro. to Programm. In Python & C	2	3	3	ICS 108	CR	Object Oriented Programing	3	3	4
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>8</b>						<b>6</b>					
<b>17</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 291	DF	Intro. to Data Science	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
ICS 202	CR	Data Structure & Algo.	3	3	4	COE 233	CR	Computer Arch. & Assembly Lang.	3	0	3
MATH 201	MS	Calculus III	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
CHEM 101	MS	General Chemistry I	3	3	4	IAS 212	GS	Professional Ethics	2	0	2
SWE 206	CR	Intro. To Software Engineering	2	3	3	ICS 253	MS	Discrete Structures I	3	0	3
						SWE 216	CR	Requirements Engineering	3	0	3
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>17</b>					
<b>9</b>						<b>0</b>					
<b>17</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ICS 321	CR	Database Systems	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
ICS 343	CR	Fundament. of Cmpt. Networks	3	3	4	ENGL 214	GS	Academic & Professional Comm.	3	0	3
STAT 319	MS	Prob. & Stat. for Eng. & Scientists	3	2	3	ICS 344	CR	Information Security	3	0	3
SWE 316	CR	Software Design & Construction	3	0	3	SWE 326	CR	Software Testing	3	0	3
SWE 387	CR	Software Project Management	3	0	3	SWE 363	CR	Web Eng. & Development	3	0	3
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15</b>					
<b>5</b>						<b>2</b>					
<b>16</b>						<b>16</b>					

### Summer Training

SWE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	GS xxx	GS	GS Elective	3	0	3
ICS/SWE xxx	CE	Major Elective I	3	0	3	ICS 433	CR	Operating Systems	3	1	3
ICS/SWE xxx	CE	Major Elective II	3	0	3	ICS/SWE xxx	CE	Major Elective III	3	0	3
SWE 411	CR	Software Engineering Project I	1	6	3	ICS/SWE xxx	CE	Major Elective IV	3	0	3
SWE 439	CR	Software Quality Eng.	3	0	3	SWE 412	CR	Software Engineering Project II	0	6	2
<b>Total</b>						<b>Total</b>					
<b>12</b>						<b>12</b>					
<b>6</b>						<b>7</b>					
<b>14</b>						<b>14</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	50
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>62</b>
<b>Total Engineering (Total Core+EN)</b>		<b>62</b>

## B.S. in Computer Engineering (COE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
CHEM 101	MS	General Chemistry I	3	3	4	ENGL 102	GS	Intro. to Report Writing	3	0	3
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ICS 108	CR	Object Oriented Programing	3	3	4
ICS 104	DF	Intro. to Programm. In Python & C	2	3	3	IAS 111	GS	Belief & its Consequences	2	0	2
						PE 101	GS	Health and Physical Education I	0	2	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15</b>					
<b>9</b>						<b>8</b>					
<b>18</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
COE 202	CR	Digital Logic Design	3	0	3	COE 301	CR	Computer Organization	3	3	4
COE 203	CR	Digital Logic Design Lab	0	3	1	COE 241	CR	Data & Comp. Communications	3	0	3
ICS 202	CR	Data Structure & Algo.	3	3	4	STAT 319	MS	Prob. & Stat. for Eng. & Scientists	2	3	3
MATH 201	MS	Calculus III	3	0	3	ICS 253	MS	Discrete Structures	3	0	3
IAS 121	GS	Langue Foundation	2	0	2						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>14</b>					
<b>6</b>						<b>6</b>					
<b>16</b>						<b>16</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 302	CR	Design & Modeling of Dig. Sys.	3	0	3	COE 306	CR	Introduction to Embedded Sys.	3	3	4
COE 344	CR	Computer Networks	3	3	4	COE 346	CR	Computer & Network Security	3	0	3
MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3	COE 384	CR	Fundam. of Computer Eng. Design	3	3	4
EE 236	CR	Electronic Circuits	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
EE 237	CR	Electronic Circuits Lab	0	3	1	CGS 392	GS	Career Essentials	0	2	1
ENGL 214	GS	Academic & Professional Comm.	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>12</b>					
<b>6</b>						<b>8</b>					
<b>17</b>						<b>15</b>					

### Summer Training

COE 399	CR	Summer Training	0	0	0
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### Senior Year

ICS 433	CR	Operating Systems	3	1	3	COE 485	CR	Senior Project	1	6	3
COE 4xx	CE	Major Elective I	3	0	3	COE4xx	CE	Major Elective III	3	0	3
COE 4xx	CE	Major Elective II	3	0	3	COE 4xx	CE	Major Elective IV	3	0	3
XXX xxx	FE	Free Elective	3	0	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
IAS 212	GS	Professional Ethics	2	0	2	GS xxx	GS	GS Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>12</b>					
<b>1</b>						<b>6</b>					
<b>14</b>						<b>14</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	47
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	3
DF	Digital/Business Foundation	12
CN	Concentration Subjects	0

**Total 128**

**Total Core (CR+CE) 59**

**Total Engineering (Total Core+EN) 59**

## B.S. in Computer Engineering (ACOE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
CHEM 101	MS	General Chemistry I	3	3	4	ENGL 102	GS	Intro. to Report Writing	3	0	3
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ICS 108	CR	Object Oriented Programing	3	3	4
ICS 104	DF	Intro. to Programm. In Python & C	2	3	3	IAS 111	GS	Belief & its Consequences	2	0	2
						PE 101	GS	Health and Physical Education I	0	2	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15</b>					
<b>9</b>						<b>8</b>					
<b>18</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
COE 202	CR	Digital Logic Design	3	0	3	COE 301	CR	Computer Organization	3	3	4
COE 203	CR	Digital Logic Design Lab	0	3	1	COE 241	CR	Data & Comp. Communications	3	0	3
ICS 202	CR	Data Structure & Algo.	3	3	4	STAT 319	MS	Prob. & Stat. for Eng. & Scientists	2	3	3
MATH 201	MS	Calculus III	3	0	3	ICS 253	MS	Discrete Structures	3	0	3
IAS 121	GS	Languge Foundation	2	0	2	IAS 212	GS	Professional Ethics	2	0	2
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>16</b>					
<b>6</b>						<b>6</b>					
<b>16</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 302	CR	Design & Modeling of Dig. Sys.	3	0	3	COE 306	CR	Introduction to Embedded Sys.	3	3	4
COE 344	CR	Computer Networks	3	3	4	COE 346	CR	Computer & Network Security	3	0	3
MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3	COE 384	CR	Fundam. of Computer Eng. Design	3	3	4
EE 236	CR	Electronic Circuits	3	0	3	COE 4xx	CE	Major Elective I	3	0	3
EE 237	CR	Electronic Circuits Lab	0	3	1	BUS 200	DF	Business & Entrepreneurship	3	0	3
ENGL 214	GS	Academic & Professional Comm.	3	0	3	CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15</b>					
<b>6</b>						<b>8</b>					
<b>17</b>						<b>18</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 398	CR	Internship Work	0	0	6	COE 485	CR	Senior Design Project	1	6	3
						COE 4xx	CE	Major Elective II	3	0	3
						COE 4xx	CE	Major Elective III	3	0	3
						ICS 433	CR	Operating Systems	3	1	3
						IAS xxx	GS	Islamic/Arabic Elective	2	0	2
						GS xxx	GS	GS Elective	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>15</b>					
<b>0</b>						<b>7</b>					
<b>6</b>						<b>17</b>					

**Total Credit Hours 128**

MS	Math and Science	32
GS	General Studies	22
CR	Core Subjects	53
CE	Core Electives	9
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
DF	Digital/Business Foundation	12
CN	Concentration Subjects	0
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>62</b>
<b>Total Engineering (Total Core+EN)</b>		<b>62</b>

## B.S. in Control & Instrumentation Systems Engineering (CISE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
ICS 104	DF	Intro. to Programm. In Python & C	2	3	3	IAS 121	GS	Languge Foundation	2	0	2
PE 101	GS	Health and Physical Education I	0	2	1	CHEM 101	MS	General Chemistry I	3	4	4
<b>Total</b>						<b>Total</b>					
<b>12</b>						<b>15</b>					
<b>8</b>						<b>7</b>					
<b>15</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
EE 201	CR	Electrical Circuits I	3	0	3	CISE 204	CR	Digital Systems Design	2	3	3
ENGL 214	GS	Academic & Professional Comm.	3	0	3	EE 203	CR	Electronics I	3	0	3
ME 203	CR	Thermodynamics I	3	0	3	ISE 205	CR	Eng. Probability and Statistics	3	0	3
IAS 111	GS	Belief & Its Consequences	2	0	2	IAS 212	GS	Professional Ethics	2	0	2
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>16</b>					
<b>0</b>						<b>3</b>					
<b>17</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CISE 305	CR	Linear Control Systems	3	0	3	CISE 301	CR	Numerical Methods	3	0	3
CISE 306	CR	Linear Control Systems lab	0	3	1	CISE 316	CR	Control Systems Design	2	3	3
ISE 307	CR	Eng. Economic Analysis	3	0	3	XE xxx	TE	Technical Elective	3	0	3
CISE 312	CR	Instrumentation Eng.	2	3	3	CISE 318	CR	Computer Control Systems	2	3	3
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	BUS 200	DF	Business & Entrepreneurship	3	0	3
CISE 315	CR	Signals and Systems	3	0	3	CISE 390	CR	Seminars	0	0	0
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>13</b>					
<b>6</b>						<b>11</b>					
<b>15</b>						<b>17</b>					

### Summer Training

CISE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CISE 410	CR	Automat. Devices and Electronics	2	3	3	CISE 412	CR	Mechatronics	2	3	3
CISE 490	CR	Senior Design Project	0	9	3	CISE 4xx	CE	Elective III	3	0	3
CISE 4xx	CE	Elective I	3	0	3	CISE 4xx	CE	Elective IV	3	0	3
CISE 4xx	CE	Elective II	3	0	3	CISE 418	CR	Industrial Process Control	3	0	3
GS xxx	GS	GS Elective	3	0	3	CISE 438	CR	Instrument. for Process Control	2	3	3
<b>Total</b>						<b>Total</b>					
<b>11</b>						<b>13</b>					
<b>12</b>						<b>6</b>					
<b>15</b>						<b>15</b>					

**Total Credit Hours 128**

MS	Math and Science	26
GS	General Studies	22
CR	Core Subjects	53
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>65</b>
<b>Total Engineering (Total Core+EN)</b>		<b>65</b>

## B.S. in Applied Control & Instrumentation Systems Engineering (ACISE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
ICS 104	DF	Intro. to Programm. In Python & C	2	3	3	IAS 111	GS	Belief & Its Consequences	2	0	2
IAS 121	GS	Languge Foundation	2	0	2	CHEM 101	MS	General Chemistry I	3	4	4
PE 101	GS	Physical Education I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>8</b>						<b>7</b>					
<b>17</b>						<b>17</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
EE 201	CR	Electrical Circuits I	3	0	3	CISE 204	CR	Digital Systems Design	2	3	3
ENGL 214	GS	Academic & Professional Comm.	3	0	3	EE 203	CR	Electronics I	3	0	3
ME 203	CR	Thermodynamics I	3	0	3	ISE 205	CR	Eng. Probability and Statistics	3	0	3
BUS 200	DF	Business & Entrepreneurship	3	0	3	IAS 212	GS	Professional Ethics	2	0	2
<b>Total</b>						<b>Total</b>					
<b>18</b>						<b>16</b>					
<b>0</b>						<b>3</b>					
<b>18</b>						<b>17</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CISE 305	CR	Linear Control Systems	3	0	3	CISE 301	CR	Numerical Methods	3	0	3
CISE 306	CR	Linear Control Systems lab	0	3	1	CISE 316	CR	Control Systems Design	2	3	3
ISE 307	CR	Eng. Economic Analysis	3	0	3	XE xxx	TE	Technical Elective	3	0	3
CISE 312	CR	Instrumentation Eng.	2	3	3	CISE 318	CR	Computer Control Systems	2	3	3
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	GS xxx	GS	GS Elective	3	0	3
CISE 315	CR	Signals and Systems	3	0	3	CISE 390	CR	Seminars	0	0	0
CISE 410	CR	Automat. Devices and Electronics	2	3	3	CGS 392	GS	Career Essentials	0	2	1
						EE 317	CR	Electronic Circuits Lab	0	3	1
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>13</b>					
<b>9</b>						<b>11</b>					
<b>18</b>						<b>17</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CISE 398	CR	Internship	0	0	6	CISE 412	CR	Mechatronics	2	3	3
						CISE 4xx	CE	Elective I	3	0	3
						CISE 4xx	CE	Elective II	3	0	3
						CISE 418	CR	Industrial Process Control	3	0	3
						CISE 438	CR	Instrument. for Process Control	2	3	3
						CISE 490	CR	Senior Design Project	0	9	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>13</b>					
<b>0</b>						<b>15</b>					
<b>6</b>						<b>18</b>					

**Total Credit Hours 128**

MS	Math and Science	26
GS	General Studies	22
CR	Core Subjects	59
CE	Core Electives	6
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>65</b>
<b>Total Engineering (Total Core+EN)</b>		<b>65</b>

## B.S. in Industrial & Systems Engineering (ISE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
CHEM 101	MS	General Chemistry I	3	4	4	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
IAS 121	GS	Languge Foundation	2	0	2	IAS 111	GS	Belief & Its Consequences	2	0	2
PE 101	GS	Health and Physical Education I	0	2	1	CE 101	CR	Engineering Graphics	1	3	2
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15</b>					
<b>9</b>						<b>9</b>					
<b>18</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
ME 216	CR	Materials Science & Eng.	3	0	3	ME 322	CR	Manufacturing Processes	3	0	3
ME 217	CR	Materials Lab	0	3	1	ME 323	CR	Manufacturing Lab	0	3	1
ENGL 214	GS	Academic & Professional Comm.	3	0	3	ISE 315	CR	Engineering Statistics	3	0	3
ISE 205	CR	Engineering Prob. & Stats.	3	0	3	EE 204	CR	Fundtals. of Electrical Circuits	2	3	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>16</b>					
<b>3</b>						<b>6</b>					
<b>16</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 303	CR	Operations Research I	3	0	3	ISE 307	CR	Engineering Economic Analysis	3	0	3
ISE 320	CR	Quality Control & Ind. Stat.	3	0	3	ISE 321	CR	Optimization Methods	3	0	3
ISE 324	CR	Work and Process Improve.	2	0	2	ISE 391	CR	Industrial Eng. Design	1	3	2
CISE 301	CR	Numerical Methods	3	0	3	XE xxx	TE	Technical Elective	3	0	3
CISE 305	CR	Linear Control Systems	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	ISE 499	CR	Seminars	1	0	0
<b>Total</b>						<b>Total</b>					
<b>16</b>						<b>14</b>					
<b>0</b>						<b>5</b>					
<b>16</b>						<b>15</b>					

### Summer Training

ISE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 4xx	CE	ISE Elective I	3	0	3	ISE 422	CR	Facility Layout and Location	3	0	3
ISE 4xx	CE	ISE Elective II	3	0	3	ISE 4xx	CE	ISE Elective III	3	0	3
ISE 402	CR	Produc. Syst. & Inventory Contrl	3	0	3	ISE 4xx	CE	ISE Elective IV	3	0	3
ISE 405	CR	Stochastic Systems Simulation	2	3	3	GS xxx	GS	GS Elective	3	0	3
ISE 482	CR	Senior Design Project	1	6	3	<b>Total</b>					
<b>Total</b>						<b>Total</b>					
<b>12</b>						<b>12</b>					
<b>9</b>						<b>0</b>					
<b>15</b>						<b>12</b>					

**Total Credit Hours 128**

MS	Math and Science	26
GS	General Studies	22
CR	Core Subjects	53
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>65</b>
<b>Total Engineering (Total Core+EN)</b>		<b>65</b>

## B.S. in Applied Industrial & Systems Engineering (AISE)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PHYS 101	MS	General Physics I	3	3	4	PHYS 102	MS	General Physics II	3	3	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
CHEM 101	MS	General Chemistry I	3	4	4	ICS 104	DF	Intro. to Programm. In Python & C	2	3	3
IAS 121	GS	Languge Foundation	2	0	2	IAS 111	GS	Belief & Its Consequences	2	0	2
PE 101	GS	Health and Physical Education I	0	2	1	CE 101	CR	Engineering Graphics	1	3	2
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>15</b>					
<b>9</b>						<b>9</b>					
<b>18</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 291	DF	Intro. to Data Science	3	0	3	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
ME 216	CR	Materials Science & Eng.	3	0	3	ME 322	CR	Manufacturing Processes	3	0	3
ME 217	CR	Materials Lab	0	3	1	ME 323	CR	Manufacturing Lab	0	3	1
ENGL 214	GS	Academic & Professional Comm.	3	0	3	ISE 315	CR	Engineering Statistics	3	0	3
ISE 205	CR	Engineering Prob. & Stats.	3	0	3	EE 204	CR	Fundtals. of Electrical Circuits	2	3	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>16</b>					
<b>3</b>						<b>6</b>					
<b>16</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 303	CR	Operations Research I	3	0	3	ISE 307	CR	Engineering Economic Analysis	3	0	3
ISE 320	CR	Quality Control & Ind. Stat.	3	0	3	ISE 321	CR	Optimization Methods	3	0	3
XE xxx	TE	Technical Elective	3	0	3	ISE 324	CR	Work and Process Improve.	2	0	2
CISE 301	CR	Numerical Methods	3	0	3	ISE 391	CR	Industrial Eng. Design	1	3	2
CISE 305	CR	Linear Control Systems	3	0	3	ISE 402	CR	Produc. Syst. & Inventory Contrl	3	0	3
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	BUS 200	DF	Business & Entrepreneurship	3	0	3
ISE 499	CR	Seminars	1	0	0	CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>18</b>						<b>15</b>					
<b>0</b>						<b>5</b>					
<b>17</b>						<b>17</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ISE 398	CR	Internship	0	0	6	ISE 405	CR	Stochastic Systems Simulation	2	3	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>15</b>					
<b>0</b>						<b>9</b>					
<b>6</b>						<b>18</b>					

**Total Credit Hours 128**

MS	Math and Science	26
GS	General Studies	22
CR	Core Subjects	59
CE	Core Electives	6
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>

**Total Core (CR+CE) 65**

**Total Engineering (Total Core+EN) 65**

**B.S. in Finance (FIN)**  
 Four-year Academic Plan  
 Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
 King Fahd University of Petroleum & Minerals

**Freshman Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
MATH 105	MS	Finite Mathematics	3	0	3	MATH 106	MS	Applied Calculus	3	0	3
ACCT 110	CR	Intro. to Financial Accounting	3	0	3	ACCT 210	CR	Intro. to Managerial Accounting	3	0	3
ECON 101	CR	Principles of Microeconomics I	3	0	3	ECON 102	CR	Principles of Microeconomics II	3	0	3
<b>BUS 200</b>	<b>DF</b>	<b>Business &amp; Entrepreneurship</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>ICS 104</b>	<b>DF</b>	<b>Intro. to Programm. In Python &amp; C</b>	<b>2</b>	<b>3</b>	<b>3</b>
IAS 111	GS	Belief and Consequences	2	0	2	MIS 215	CR	Principles of MIS	3	0	3
MIS 101	CR	Business Computing	0	3	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>17</b>					
<b>3</b>						<b>3</b>					
<b>18</b>						<b>18</b>					

**Sophomore Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 214	GS	Academic & Professional Comm.	3	0	3	MGT 210	CR	Business Communication	3	0	3
FIN 250	CR	Financial Management	3	0	3	MKT 250	CR	Principles of Marketing	3	0	3
STAT 211	MS	Statistics for Business I	3	0	3	STAT 212	MS	Statistics for Business II	3	0	3
IAS 121	GS	Language Foundation	2	0	2	OM 210	CR	Operations Management	3	0	3
MGT 301	CR	Principles of Management	3	0	3	<b>ISE 291</b>	<b>DF</b>	<b>Intro. to Data Science</b>	<b>3</b>	<b>0</b>	<b>3</b>
ACCT 301	CR	Intermediate Accounting I	3	0	3	FIN 315	CR	Corporate Finance	3	0	3
PE 101	GS	Health and Physical Educ. I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>18</b>					
<b>2</b>						<b>0</b>					
<b>18</b>						<b>18</b>					

**Junior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
OM 311	CR	Business Analytics	3	0	3	MGT 311/313	CR	Legal Environment/Int. Legal Envir.	3	0	3
<b>COE 292</b>	<b>DF</b>	<b>Intro. to Artificial Intelligence</b>	<b>3</b>	<b>0</b>	<b>3</b>	MGT 355	CR	Business Research Methods	3	0	3
ECON 306	CR	Economy of Saudi Arabia	3	0	3	CGS 392	GS	Career Essentials	0	2	1
ECON 3/4xx	CE	ECON Elective	3	0	3	IAS 212	GS	Professional Ethics	2	0	2
FIN 320	CR	Investments	3	0	3	FIN 3/4xx (1)	CE	FIN Elective 1	3	0	3
						XXX 3/4xx (1)	CE	Business Elective 1	3	0	3
						FIN 425	CR	Financial Modeling	3	0	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>17</b>					
<b>0</b>						<b>2</b>					
<b>15</b>						<b>18</b>					

**Senior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
FIN 398	CR	Internship	0	0	6	MGT 449	CR	Strategic Management	3	0	3
						IAS 418	GS	Contemporary Fin. Trans. in Islam	2	0	2
						GS xxx	GS	GS Elective	3	0	3
						FIN 3/4xx (2)	CE	FIN Elective 2	3	0	3
						XXX 3/4xx (2)	CE	Business Elective 2	3	0	3
						FIN 450	CR	Financial Policy	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>17</b>					
<b>0</b>						<b>0</b>					
<b>6</b>						<b>17</b>					

**Total Credit Hours**      **128**

MS	Math and Science	12
GS	General Studies	22
CR	Core Subjects	67
CE	Core Electives	15
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
<b>DF</b>	<b>Digital/Business Foundation</b>	<b>12</b>
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>82</b>
<b>Total Engineering (Total Core+EN)</b>		<b>82</b>

## B.S. in Accounting (ACCT)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
MATH 105	MS	Finite Mathematics	3	0	3	MATH 106	MS	Applied Calculus	3	0	3
ACCT 110	CR	Intro. to Financial Accounting	3	0	3	ACCT 210	CR	Intro. to Managerial Accounting	3	0	3
ECON 101	CR	Principles of Microeconomics I	3	0	3	ECON 102	CR	Principles of Microeconomics II	3	0	3
<b>BUS 200</b>	<b>DF</b>	<b>Business &amp; Entrepreneurship</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>ICS 104</b>	<b>DF</b>	<b>Intro. to Programm. In Python &amp; C</b>	<b>2</b>	<b>3</b>	<b>3</b>
IAS 111	GS	Belief and Consequences	2	0	2	MIS 215	CR	Principles of MIS	3	0	3
MIS 101	CR	Business Computing	0	3	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>17</b>					
<b>3</b>						<b>3</b>					
<b>18</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 214	GS	Academic & Professional Comm.	3	0	3	MGT 210	CR	Business Communication	3	0	3
FIN 250	CR	Financial Management	3	0	3	MKT 250	CR	Principles of Marketing	3	0	3
STAT 211	MS	Statistics for Business I	3	0	3	STAT 212	MS	Statistics for Business II	3	0	3
IAS 121	GS	Language Foundation	2	0	2	OM 210	CR	Operations Management	3	0	3
MGT 301	CR	Principles of Management	3	0	3	<b>ISE 291</b>	<b>DF</b>	<b>Intro. to Data Science</b>	<b>3</b>	<b>0</b>	<b>3</b>
ACCT 300	CR	Accounting Information Systems	2	2	3	ACCT 301	CR	Intermediate Accounting I	3	0	3
PE 101	GS	Health and Physical Educ. I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>16</b>						<b>18</b>					
<b>4</b>						<b>0</b>					
<b>18</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
OM 311	CR	Business Analytics	3	0	3	MGT 311/313	CR	Legal Environment/Int. Legal Envir.	3	0	3
<b>COE 292</b>	<b>DF</b>	<b>Intro. to Artificial Intelligence</b>	<b>3</b>	<b>0</b>	<b>3</b>	MGT 355	CR	Business Research Methods	3	0	3
ECON 306	CR	Economy of Saudi Arabia	3	0	3	CGS 392	GS	Career Essentials	0	2	1
ACCT 302	CR	Intermediate ACCT II	3	0	3	IAS 212	GS	Professional Ethics	2	0	2
ACCT 311	CR	Auditing	3	0	3	ACCT 3/4xx (1)	CE	ACCT Elective 1	3	0	3
						XXX 3/4xx (1)	CE	Business Elective 1	3	0	3
						ACCT 410	CR	Cost Accounting	3	0	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>17</b>					
<b>0</b>						<b>2</b>					
<b>15</b>						<b>18</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ACCT 398	CR	Internship	0	0	6	MGT 449	CR	Strategic Management	3	0	3
						IAS 418	GS	Contemporary Fin. Trans. in Islam	2	0	2
						GS xxx	GS	GS Elective	3	0	3
						ACCT 3/4xx (2)	CE	ACCT Elective 2	3	0	3
						XXX 3/4xx (2)	CE	Business Elective 2	3	0	3
						ACCT 403	CR	Advanced Accounting	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>17</b>					
<b>0</b>						<b>0</b>					
<b>6</b>						<b>17</b>					

**Total Credit Hours 128**

MS	Math and Science	12
GS	General Studies	22
CR	Core Subjects	70
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
<b>DF</b>	<b>Digital/Business Foundation</b>	<b>12</b>
<b>Total</b>		<b>128</b>

**Total Core (CR+CE) 82**

**Total Engineering (Total Core+EN) 82**

## B.S. in Management Information System (MIS)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
MATH 105	MS	Finite Mathematics	3	0	3	MATH 106	MS	Applied Calculus	3	0	3
ACCT 110	CR	Intro. to Financial Accounting	3	0	3	ACCT 210	CR	Intro. to Managerial Accounting	3	0	3
ECON 101	CR	Principles of Microeconomics I	3	0	3	ECON 102	CR	Principles of Microeconomics II	3	0	3
<b>BUS 200</b>	<b>DF</b>	<b>Business &amp; Entrepreneurship</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>ICS 104</b>	<b>DF</b>	<b>Intro. to Programm. In Python &amp; C</b>	<b>2</b>	<b>3</b>	<b>3</b>
IAS 111	GS	Belief and Consequences	2	0	2	MIS 215	CR	Principles of MIS	3	0	3
MIS 101	CR	Business Computing	0	3	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>17</b>					
<b>3</b>						<b>3</b>					
<b>18</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 214	GS	Academic & Professional Comm.	3	0	3	MGT 210	CR	Business Communication	3	0	3
FIN 250	CR	Financial Management	3	0	3	MKT 250	CR	Principles of Marketing	3	0	3
STAT 211	MS	Statistics for Business I	3	0	3	STAT 212	MS	Statistics for Business II	3	0	3
IAS 121	GS	Language Foundation	2	0	2	OM 210	CR	Operations Management	3	0	3
MGT 301	CR	Principles of Management	3	0	3	<b>ISE 291</b>	<b>DF</b>	<b>Intro. to Data Science</b>	<b>3</b>	<b>0</b>	<b>3</b>
MIS 301	CR	Business Systs. Analysis & Design	2	2	3	ECON 306	CR	Economy of Saudi Arabia	3	0	3
PE 101	GS	Health and Physical Educ. I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>16</b>						<b>18</b>					
<b>4</b>						<b>0</b>					
<b>18</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
OM 311	CR	Business Analytics	3	0	3	MGT 311/313	CR	Legal Environment/Int. Legal Envir.	3	0	3
<b>COE 292</b>	<b>DF</b>	<b>Intro. to Artificial Intelligence</b>	<b>3</b>	<b>0</b>	<b>3</b>	MGT 355	CR	Business Research Methods	3	0	3
COE 353	CR	Fundamentals of Comptr Comms	3	0	3	CGS 392	GS	Career Essentials	0	2	1
MIS 3/4xx (1)	CE	MIS Elective 1	3	0	3	IAS 212	GS	Professional Ethics	2	0	2
MIS 311	CR	Business Data Management	2	2	3	MIS 3/4xx (2)	CE	MIS Elective 2	3	0	3
						XXX xxx (1)	CE	Business Elective 1	3	0	3
						MIS 405	CR	IS Project Management	3	0	3
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>17</b>					
<b>2</b>						<b>2</b>					
<b>15</b>						<b>18</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MIS 398	CR	Internship	0	0	6	MGT 449	CR	Strategic Management	3	0	3
						IAS 418	GS	Contemporary Fin. Trans. in Islam	2	0	2
						GS xxx	GS	GS Elective	3	0	3
						MIS 3/4xx (3)	CE	MIS Elective 3	3	0	3
						XXX xxx (2)	CE	Business Elective 2	3	0	3
						MIS 410	CR	Management Support Systems	2	2	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>16</b>					
<b>0</b>						<b>2</b>					
<b>6</b>						<b>17</b>					

**Total Credit Hours** 128

MS	Math and Science	12
GS	General Studies	22
CR	Core Subjects	67
CE	Core Electives	15
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
<b>DF</b>	<b>Digital/Business Foundation</b>	<b>12</b>

**Total** 128

**Total Core (CR+CE)** 82

**Total Engineering (Total Core+EN)** 82

**B.S. in Marketing (MKT)**  
 Four-year Academic Plan  
 Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
 King Fahd University of Petroleum & Minerals

**Freshman Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
MATH 105	MS	Finite Mathematics	3	0	3	MATH 106	MS	Applied Calculus	3	0	3
ACCT 110	CR	Intro. to Financial Accounting	3	0	3	ACCT 210	CR	Intro. to Managerial Accounting	3	0	3
ECON 101	CR	Principles of Microeconomics I	3	0	3	ECON 102	CR	Principles of Microeconomics II	3	0	3
<b>BUS 200</b>	<b>DF</b>	<b>Business &amp; Entrepreneurship</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>ICS 104</b>	<b>DF</b>	<b>Intro. to Programm. In Python &amp; C</b>	<b>2</b>	<b>3</b>	<b>3</b>
IAS 111	GS	Belief and Consequences	2	0	2	MIS 215	CR	Principles of MIS	3	0	3
MIS 101	CR	Business Computing	0	3	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>17</b>					
<b>3</b>						<b>3</b>					
<b>18</b>						<b>18</b>					

**Sophomore Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 214	GS	Academic & Professional Comm.	3	0	3	MGT 210	CR	Business Communication	3	0	3
FIN 250	CR	Financial Management	3	0	3	MKT 250	CR	Principles of Marketing	3	0	3
STAT 211	MS	Statistics for Business I	3	0	3	STAT 212	MS	Statistics for Business II	3	0	3
IAS 121	GS	Language Foundation	2	0	2	OM 210	CR	Operations Management	3	0	3
MGT 301	CR	Principles of Management	3	0	3	<b>ISE 291</b>	<b>DF</b>	<b>Intro. to Data Science</b>	<b>3</b>	<b>0</b>	<b>3</b>
MGT 311/313	CR	Legal Environment/Int. Legal Envir.	3	0	3	ECON 306	CR	Economy of Saudi Arabia	3	0	3
PE 101	GS	Health and Physical Educ. I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>18</b>					
<b>2</b>						<b>0</b>					
<b>18</b>						<b>18</b>					

**Junior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
IAS 212	GS	Professional Ethics	2	0	2	CGS 392	GS	Career Essentials	0	2	1
<b>COE 292</b>	<b>DF</b>	<b>Intro. to Artificial Intelligence</b>	<b>3</b>	<b>0</b>	<b>3</b>	OM 311	CR	Business Analytics	3	0	3
MGT 355	CR	Business Research Methods	3	0	3	MKT 3/4xx (1)	CE	MKT Elective 1	3	0	3
MKT 360	CR	Product & Brand Management	3	0	3	XXX 3/4xx (1)	CE	Business Elective 1	3	0	3
MKT 370	CR	Integrated Marketing Comm.	3	0	3	MKT 345	CR	Marketing Research	3	0	3
MKT 410	CR	Consumer Behavior	3	0	3	MKT 485	CR	Digital Marketing	3	0	3
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>15</b>					
<b>0</b>						<b>2</b>					
<b>17</b>						<b>16</b>					

**Senior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MKT 398	CR	Internship	0	0	6	MGT 449	CR	Strategic Management	3	0	3
						IAS 418	GS	Contemporary Fin. Trans. in Islam	2	0	2
						GS xxx	GS	GS Elective	3	0	3
						MKT 3/4xx (2)	CE	MKT Elective 2	3	0	3
						XXX 3/4xx (2)	CE	Business Elective 2	3	0	3
						MKT 450	CR	Strategic Marketing	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>17</b>					
<b>0</b>						<b>0</b>					
<b>6</b>						<b>17</b>					

**Total Credit Hours**      **128**

MS	Math and Science	12
GS	General Studies	22
CR	Core Subjects	70
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
<b>DF</b>	<b>Digital/Business Foundation</b>	<b>12</b>

**Total**      **128**

**Total Core (CR+CE)**      **82**

**Total Engineering (Total Core+EN)**      **82**

## B.S. in Management (MGT)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
MATH 105	MS	Finite Mathematics	3	0	3	MATH 106	MS	Applied Calculus	3	0	3
ACCT 110	CR	Intro. to Financial Accounting	3	0	3	ACCT 210	CR	Intro. to Managerial Accounting	3	0	3
ECON 101	CR	Principles of Microeconomics I	3	0	3	ECON 102	CR	Principles of Microeconomics II	3	0	3
<b>BUS 200</b>	<b>DF</b>	<b>Business &amp; Entrepreneurship</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>ICS 104</b>	<b>DF</b>	<b>Intro. to Programm. In Python &amp; C</b>	<b>2</b>	<b>3</b>	<b>3</b>
IAS 111	GS	Belief and Consequences	2	0	2	MIS 215	CR	Principles of MIS	3	0	3
MIS 101	CR	Business Computing	0	3	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>17</b>					
<b>3</b>						<b>3</b>					
<b>18</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 214	GS	Academic & Professional Comm.	3	0	3	MGT 210	CR	Business Communication	3	0	3
FIN 250	CR	Financial Management	3	0	3	MKT 250	CR	Principles of Marketing	3	0	3
STAT 211	MS	Statistics for Business I	3	0	3	STAT 212	MS	Statistics for Business II	3	0	3
IAS 121	GS	Language Foundation	2	0	2	OM 210	CR	Operations Management	3	0	3
MGT 301	CR	Principles of Management	3	0	3	<b>ISE 291</b>	<b>DF</b>	<b>Intro. to Data Science</b>	<b>3</b>	<b>0</b>	<b>3</b>
MGT 311/313	CR	Legal Environment/Int. Legal Envir.	3	0	3	HRM 301	CR	Human Resources Management	3	0	3
PE 101	GS	Health and Physical Educ. I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>18</b>					
<b>2</b>						<b>0</b>					
<b>18</b>						<b>18</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
OM 311	CR	Business Analytics	3	0	3	CGS 392	GS	Career Essentials	0	2	1
<b>COE 292</b>	<b>DF</b>	<b>Intro. to Artificial Intelligence</b>	<b>3</b>	<b>0</b>	<b>3</b>	IAS 212	GS	Professional Ethics	2	0	2
ECON 306	CR	Economy of Saudi Arabia	3	0	3	MGT 355	CR	Business Research Methods	3	0	3
MGT 3/4xx (1)	CE	MGT Elective 1	3	0	3	MGT 3/4xx (2)	CE	MGT Elective 2	3	0	3
MGT 310	CR	Organization Behavior	3	0	3	XXX 3/4xx (1)	CE	Business Elective 1	3	0	3
MGT 430	CR	Organizational Leadership	3	0	3	MGT 440	CR	International Business	3	0	3
<b>Total</b>						<b>Total</b>					
<b>18</b>						<b>14</b>					
<b>0</b>						<b>2</b>					
<b>18</b>						<b>15</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MGT 398	CR	Internship	0	0	6	MGT 449	CR	Strategic Management	3	0	3
						GS xxx	GS	GS Elective	3	0	3
						IAS 418	GS	Contemporary Fin. Trans. in Islam	2	0	2
						MGT 3/4xx (3)	CE	MGT Elective 3	3	0	3
						XXX 3/4xx (2)	CE	Business Elective 2	3	0	3
						MGT 450	CR	Mgt. of Innovation & Change	3	0	3
<b>Total</b>						<b>Total</b>					
<b>0</b>						<b>17</b>					
<b>0</b>						<b>0</b>					
<b>6</b>						<b>17</b>					

**Total Credit Hours** **128**

MS	Math and Science	12
GS	General Studies	22
CR	Core Subjects	67
CE	Core Electives	15
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
<b>DF</b>	<b>Digital/Business Foundation</b>	<b>12</b>
<b>Total</b>		<b>128</b>

**Total Core (CR+CE)** **82**

**Total Engineering (Total Core+EN)** **82**

**B.S. in Chemistry**  
 Four-year Academic Plan  
 Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
 King Fahd University of Petroleum & Minerals

Freshman Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	CR	Principles of Chemical Science I	3	3	4	CHEM 102	CR	Principles of Chemical Science II	3	4	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ICS 104	DF	Prog. In Python and C	2	3	3
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4	IAS 121	GS	Language Foundation	2	0	2
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>14</b>					
<b>8</b>						<b>10</b>					
<b>16</b>						<b>17</b>					

Sophomore Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 201	CR	Organic Chemistry I	3	0	3	CHEM 204	CR	Organic Chemistry II	3	0	3
CHEM 203	CR	Organic Chemistry I Laboratory	0	4	1	CHEM 212	CR	PC I: Chemical Thermodynamics	3	0	3
CHEM 221	CR	Quantitative Chemical Analysis	2	0	2	CHEM 213	CR	PC I: Chem. Thermodynamics Lab	0	4	1
CHEM 222	CR	Quantitative Chemical Analysis Lab	0	4	1	ENGL 214	GS	Academic & Professional Comn.	3	0	3
ENGL 102	GS	Introduction to report writing	3	0	3	XXX xxx	MS	Math/STAT Elective*	3	0	3
MATH 201	MS	Calculus III	3	0	3	IAS 111	GS	Belief & Its Consequences	2	0	2
BUS 200	DF	Business & Entrepreneurship	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>14</b>					
<b>8</b>						<b>4</b>					
<b>16</b>						<b>15</b>					

Junior Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 311	CR	PC II: Kinetics and Spectroscopy	3	0	3	CHEM 305	CR	Organic Syn. and Chara. Lab	0	8	2
CHEM 312	CR	PC II: Kinetics & Spectroscopy Lab	0	4	1	CHEM 363	CR	Biochemistry	3	0	3
CHEM 335	CR	Fund. of Inorg. Chem.	3	0	3	CHEM 336	CR	Adv. Inorganic Chem.	2	0	2
ISE 291	DF	Intro. to Data Science	3	0	3	CHEM 337	CR	Inorganic Syn & Charac. Lab	0	4	1
IAS 212	GS	Professional Ethics	2	0	2	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
CHEM 324	CR	Instrumental Chemical Analysis	3	0	3	XXX xxx	TE	Technical Elective I	3	0	3
CHEM 325	CR	Instrumental Chemical Analysis Lab	0	4	1	CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>11</b>					
<b>8</b>						<b>14</b>					
<b>16</b>						<b>15</b>					

Summer Training											
						CHEM 399	CR	Summer Training	0	0	0

Senior Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM XXX	CE	Chemistry Elective I	3	0	3	CHEM 458	CR	Materials Chemistry	3	0	3
CHEM XXX	CE	Chemistry Elective II	3	0	3	CHEM 459	CR	Material Synth. Char. Lab	0	4	1
XXX xxx	TE	Technical Elective II	3	0	3	CHEM 479	CR	Chemistry Seminar	1	0	1
GS XXX	GS	GS Elective I	3	0	3	XXX xxx	EN	Engineering Elective	3	0	3
CHEM 488	CR	Under. Grad. Research	0	8	2	XXX xxx	FE	Free Elective I	3	0	3
						IAS xxx	GS	Islamic/Arabic Elective	2	0	2
<b>Total</b>						<b>Total</b>					
<b>12</b>						<b>12</b>					
<b>8</b>						<b>4</b>					
<b>14</b>						<b>13</b>					

Total Credit Hours		122
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MS	Math and Science	22
GS	General Studies	22
CR	Core Subjects	48
CE	Core Electives	6
EN	Engineering Electives	3
TE	Technical Electives	6
FE	Free Electives	3
DF	Digital/Business Foundation	12
<b>Total</b>		<b>122</b>
<b>Total Core (CR+CE)</b>		<b>54</b>
<b>Total Engineering (Total Core+EN)</b>		<b>57</b>

**B.S. in Mathematics**  
 Four-year Academic Plan  
 Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
 King Fahd University of Petroleum & Minerals

**Freshman Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry I	3	4	4	PHYS 102	MS	General Physics II	3	3	4
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	MATH 102	MS	Calculus II	4	0	4
MATH 101	MS	Calculus I	4	0	4	ENGL 102	GS	Intro to Report Writing	3	0	3
PHYS 101	MS	General Physics I	3	3	4	IAS 111	GS	Beliefs and its Consequences	2	0	2
PE 101	GS	Health and Physical Educ. I	0	2	1	ICS 104	DF	Intro. to Programm. in Python & C	2	3	3
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>14</b>					
<b>9</b>						<b>6</b>					
<b>16</b>						<b>16</b>					

**Sophomore Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 201	MS	Calculus III	3	0	3	MATH 202	MS	Elements of Differential Equations	3	0	3
MATH 210	CR	Intro. to Sets and Structures	3	0	3	MATH 225	CR	Intro. to Linear Algebra	3	0	3
STAT 201	CR	Intro. to Statistics	2	2	3	MATH 323	CR	Modern Algebra I	3	0	3
ENGL 214	GS	Academic & Professional Comm.	3	0	3	XXX xxx	MS	Science Elective	x	x	3
Bus 200	DF	Business & Entrepreneurship	3	0	3	IAS 121	GS	Language Foundation	2	0	2
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>14</b>					
<b>2</b>						<b>0</b>					
<b>15</b>						<b>17</b>					

**Junior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 333	CR	Methods of Applied Math I	3	0	3	MATH 441	CR	Advanced Calculus II	3	0	3
Math 341	CR	Advanced Calculus I	3	0	3	XXX xxx	CR	MATH 451 or STAT 301*	3	0	3
MATH 371	CR	Intro. to Numerical Computing	2	2	3	MATH xxx	CE	MATH Elective I	3	0	3
XXX xxx	FE	Free Elective	3	0	3	XX xxx	EN	Engineering Elective	3	0	3
COE 292	DF	Intro. to Artificial Intelligence	3	0	3	IAS 212	GS	Professional Ethics	2	0	2
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>14</b>					
<b>2</b>						<b>2</b>					
<b>15</b>						<b>15</b>					

**Summer Training**

MATH 399	CR	Summer Training	0	0	2
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**Senior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
MATH 445	CR	Intr. to Complex Variables	3	0	3	MATH 453	CR	Intro. to Topology	3	0	3
MATH xxx	CE	Math Elective II	3	0	3	MATH 490	CR	Seminar in Math	1	0	1
MATH xxx	CE	MATH Elective III	3	0	3	MATH xxx	CE	Math Elective IV	3	0	3
XXX xxx	TE	Technical Elective I	3	0	3	XXX xxx	TE	Technical Elective II	3	0	3
IAS xxx	GS	Either IAS 301 or IAS 322	2	0	2	GS xxx	GS	GS Elective I	3	0	3
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>13</b>					
<b>0</b>						<b>0</b>					
<b>14</b>						<b>13</b>					

**Total Credit Hours 123**

\* Math 451: Differential Geometry, Stat 301: Intro to Probability Theory  
 EN, FE, TE electives should be 300 or above.

MS	Math and Science	29
GS	General Studies	22
CR	Core Subjects	36
CE	Core Electives	12
EN	Engineering Electives	3
TE	Technical Electives	6
FE	Free Electives	3
DF	Digital/Business Foundation	12
<b>Total</b>		<b>123</b>
<b>Total Core (CR+CE)</b>		<b>48</b>
<b>Total Engineering (Total Core+EN)</b>		<b>51</b>

**B.S. in Physics**  
 Four-year Academic Plan  
 Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
 King Fahd University of Petroleum & Minerals

**Freshman Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CHEM 101	MS	General Chemistry-I	3	4	4	ENGL 102	GS	Introduction to Report Writing	3	0	3
ENGL 101	GS	Introduction to Acad. Discourse	3	0	3	ICS 104	DF	Python and C Programming	2	3	3
IAS 121	GS	Language Foundation	2	0	2	IAS 111	GS	Belief and Its Consequences	2	0	2
MATH 101	MS	Calculus-I	4	0	4	MATH 102	MS	Calculus-II	4	0	4
PE 101	GS	Physical Education-I	0	2	1	PHYS 102	MS	General Physics-II	3	3	4
PHYS 101	MS	General Physics-I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>14</b>					
<b>9</b>						<b>6</b>					
<b>18</b>						<b>16</b>					

**Sophomore Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 214	GS	Tech. Rep. Writing	3	0	3	COE 292	DF	AI for Eng. & Scientists	3	0	3
IAS 212	GS	Professional Ethics	2	0	2	MATH 202	MS	Elementary Diff. Equations	3	0	3
MATH 201	MS	Calculus-III	3	0	3	PHYS 213*	CR	Modern Physics	3	0	3
PHYS 204	CR	General Physics-III	3	0	3	PHYS 210#	CR	Methods of Theo. Physics	3	0	3
PHYS 205	CR	General Physics III LAB	0	3	1	XXX xxx	TE	Tech. Elective	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>3</b>						<b>0</b>					
<b>15</b>						<b>15</b>					

**Junior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
XXX xxx^	EN	Engineering Elective	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
PHYS 300	CR	Classical Mechanics-I	4	0	4	PHYS 309	CR	Experimental Physics	1	3	2
PHYS 308	CR	Electronics	3	3	4	PHYS 306	CR	Electricity and Magnetism-II	3	0	3
PHYS 305	CR	Electricity and Magnetism-I	3	0	3	PHYS 310	CR	Quantum Mech. and Appl.-I	3	0	3
						PHYS xxx	CE	Physics Elective	3	0	3
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>13</b>					
<b>3</b>						<b>5</b>					
<b>14</b>						<b>15</b>					

**Summer Training**

						PHYS 399	CR	Summer Training	0	0	2
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**Senior Year**

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	GS xxx	GS	GS Elective I	3	0	3
PHYS 410	CR	Quantum Mech. and Appl.-II	3	0	3	PHYS xxx	CE	Physics Elective	3	0	3
PHYS 403	CR	Senior Physics Lab	0	6	2	PHYS 430	CR	Thermal & Stat. Physics	4	0	4
PHYS 499	CR	Physics Seminar	1	0	1	PHYS 4xx	CE	Physics Elective	3	0	3
PHYS 4xx	CE	Physics Elective	3	0	3	XXX xxx	TE	Tech. Elective	3	0	3
PHYS 497	CR	Undergrad. Research I	0	0	3						
<b>Total</b>						<b>Total</b>					
<b>9</b>						<b>16</b>					
<b>6</b>						<b>0</b>					
<b>14</b>						<b>16</b>					

**Total Credit Hours 125**

PHYS xxx: PHYS 3xx or PHYS 4xx

XXX xxx Technical elective at 200 level and above, not to be chosen from IAS or GS

\* Without Relativity

# PHYS 210 not open to students who have taken MATH 333 or MATH 302

^XXX xxx: 200 Level or higher

MS	Math and Science	26
GS	General Studies	22
CR	Core Subjects	44
CE	Core Electives	12
EN	Engineering Electives	3
TE	Technical Electives	6
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>125</b>
<b>Total Core (CR+CE)</b>		<b>56</b>
<b>Total Engineering (Total Core+EN)</b>		<b>59</b>

## B.S. in Actuarial Science and Financial Mathematics (AS)

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	ECON 102	MS	Principles of Moacroeconomics	3	0	3
IAS 121	GS	Language Foundation	2	0	2	ACCT 210	MS	Intro. to Managerial Accounting	3	0	3
ACCT 110	MS	Intro. to Financial Accounting	3	0	3	ENGL 102	GS	Intro. to Report Writing	3	0	3
MATH 101	MS	Calculus I	4	0	4	IAS 111	GS	Belief & Its Consequences	2	0	2
ECON 101	MS	Principles of Microeconomics	3	0	3	MATH 102	MS	Calculus II	4	0	4
PE 101	GS	Physical Education I	0	2	1	ICS 104	DF	Intro to Programm. in Python and C	2	3	3
<b>Total</b>						<b>Total</b>					
<b>15</b>						<b>17</b>					
<b>2</b>						<b>3</b>					
<b>16</b>						<b>18</b>					

### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
AS 201	CR	Financial Math	3	0	3	AS 251	CR	Financial Modeling for Actuaries	2	2	3
BUS 200	DF	Business & Entrepreneurship	3	0	3	AS 289	CR	Actuarial Sc. Problem Lab I	0	2	1
IAS 212	GS	Professional Ethics	2	0	2	FIN 250	CR	Financial Management	3	0	3
STAT 214	CR	Statistical Methods for Actuaries	3	2	4	STAT 301	CR	Intro. to Probability Theory	3	0	3
ISE 291	DF	Intro. to Data Science	3	0	3	ENG 214	GS	Academic & Professional Comm.	3	0	3
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
<b>Total</b>						<b>Total</b>					
<b>17</b>						<b>14</b>					
<b>2</b>						<b>4</b>					
<b>18</b>						<b>16</b>					

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
COE 292	DF	Introduction to AI	3	0	3	AS 398	CR	Internship	0	0	6
FIN 320	CR	Investments	3	0	3						
AS 322	CR	Numerical Meth for Actuaries	2	2	3						
CGS 392	GS	Career Essentials	0	2	1						
STAT 302	CR	Statistical Inference	3	0	3						
STAT 310	CR	Regression Analysis	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>0</b>					
<b>4</b>						<b>0</b>					
<b>16</b>						<b>6</b>					

### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
STAT 460	CR	Time Series	3	0	3	STAT 416	CR	Stoch Processes for Actuaries	3	0	3
AS XXX	CE	AS Elective I	3	0	3	IAS XXX	GS	Islamic/Arabic Elective	2	0	2
AS 380	CR	Actuarial Contingencies I	2	2	3	XXX xxx	TE	Technical Elective	3	0	3
AS 484	CR	Act Risk Th and Credibility	3	2	4	AS 481	CR	Actuarial Contingencies II	3	2	4
GS XXX	GS	General Studies Elective I	3	0	3	AS XXX	CE	AS Elective II	3	0	3
AS 389	CR	Actuarial Sc. Problem Lab II	0	2	1	FIN 440	CR	Islamic Finance	3	0	3
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>17</b>					
<b>6</b>						<b>2</b>					
<b>17</b>						<b>18</b>					

**Total Credit Hours 125**

Note: Core Subjects(CR) consists of STAT(16 Cr), FIN(9 Cr) and AS(34 Cr) courses.

MS	Math and Science	26
GS	General Studies	22
CR	Core Subjects	56
CE	Core Electives	6
EN	Engineering Electives	0
TE	Technical Electives	3
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>125</b>
<b>Total Core (CR+CE)</b>		<b>62</b>
<b>Total Engineering (Total Core+EN)</b>		<b>62</b>

## B.S. in BSc in Petroleum Engineering

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

### Freshman Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
ENGL 101	GS	Intro. to Academic Discourse	3	0	3	CHEM 101	MS	General Chemistry I	3	4	4
GEOL 102	CR	Fundamentals of Geology	2	0	2	ENGL 102	GS	Intro. to Report Writing	3	0	3
MATH 101	MS	Calculus I	4	0	4	GEOP 102	CR	Essentials of Geophysics	2	0	2
PE 101	GS	Health & Phys. Education I	0	2	1	MATH 102	MS	Calculus II	4	0	4
PETE 101	CR	Intro. to the Petroleum Industry	2	0	2	PHYS 102	MS	General Physics II	3	3	4
PHYS 101	MS	General Physics I	3	3	4						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>5</b>						<b>7</b>					
<b>16</b>						<b>17</b>					

### Summer I

CPG 199	CR	Summer Camp	0	0	1
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### Sophomore Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CE 202	CR	Statics & Strength of Materials	3	0	3	CHE 204	CR	Fluid Mechanics	3	0	3
GS xxx	GS	GS Elective	3	0	3	ENGL 214	GS	Academic & Professional Comm.	3	0	3
IAS 121	GS	Language Foundation	2	0	2	ISE 291	DF	Introduction to Data Science	3	0	3
ICS 104	DF	Intro to Programm. in Python and C	2	3	3	IAS 111	GS	Belief & its Consequences	2	0	2
MATH 201	MS	Calculus III	3	0	3	MATH 208	MS	Intro. to Diff. Eq. & Linear Algebra	3	0	3
PETE 202	CR	Phase Behavior	3	0	3	PETE 206	CR	Rock & Fluid Properties	3	3	4
<b>Total</b>						<b>Total</b>					
<b>16</b>						<b>17</b>					
<b>3</b>						<b>3</b>					
<b>17</b>						<b>18</b>					

### Summer II

### Junior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
GEOL 345	CR	Integrated Petroleum Geology	3	3	4	PETE 302	CR	Well Completion	3	0	3
IAS 212	GS	Professional Ethics	2	0	2	COE 292	DF	Intro. to Artificial Intelligence	3	0	3
PETE 301	CR	Reservoir Engineering	3	0	3	PETE 315	CR	Reservoir Description	3	3	4
PETE 311	CR	Drilling Engineering	3	3	4	PETE 306	CR	Well Testing	3	0	3
PETE 313	CR	Well Logging	3	0	3	BUS 200	DF	Business & Entrepreneurship	3	0	3
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>6</b>						<b>5</b>					
<b>16</b>						<b>17</b>					

### Summer III

PETE 399	CR	Summer Training	0	0	0
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### Senior Year

Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CPG 498	CR	Integrated Design I	0	3	1	CPG 499	CR	Integrated Design II	0	6	2
GEOL 3xx	CE	Geology Elective*	2	3	3	PETE 403	CR	Pet. Production Engineering	3	0	3
PETE 402	CR	Reservoir Simulation	2	3	3	PETE 4xx	CE	PETE Elective I*	3	0	3
PETE 407	CR	Petroleum Economics	3	0	3	PETE 4xx	CE	PETE Elective II*	3	0	3
GEOP xxx	CE	Geophysics Elective*	3	0	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
<b>Total</b>						<b>Total</b>					
<b>10</b>						<b>11</b>					
<b>9</b>						<b>6</b>					
<b>13</b>						<b>13</b>					

**Total Credit Hours 128**

\* CEs are to be taken from listed courses

MS	Math and Science	26
GS	General Studies	22
CR	Core Subjects	56
CE	Core Electives	12
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	0
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>68</b>
<b>Total Engineering (Total Core+EN)</b>		<b>68</b>

**B.S. in BSc in Geology**  
 Four-year Academic Plan  
 Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
 King Fahd University of Petroleum & Minerals

Freshman Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
GEOL 102	CR	Principles of Geology	2	0	2	GEOP 102	CR	Essentials of Geophysics	2	0	2
GEOL 103	CR	Principles of Geology – Lab	0	3	1	MATH 102	MS	Calculus II	4	0	4
PETE 101	CR	Introduction to Petroleum Industry	2	0	2	PHYS 102	MS	General Physics II	3	3	4
MATH 101	MS	Calculus I	4	0	4	CHEM 101	MS	General Chemistry I	3	4	4
PHYS 101	MS	General Physics I	3	3	4	ENGL 102	GS	Intro. To Report Writing	3	0	3
ENGL 101	GS	Intro Academic Discourse	3	0	3						
PE 101	GS	Health and Phys. Ed. I	0	2	1						
<b>Total</b>						<b>Total</b>					
<b>14</b>						<b>15</b>					
<b>8</b>						<b>7</b>					
<b>17</b>						<b>17</b>					

<b>Summer I</b>						CPG 199	CR	Summer Camp	0	0	1
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Sophomore Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
GEOL 213	CR	Earth History and Paleontology	2	3	3	GEOL 220	CR	Petrology	2	3	3
GEOL 217	CR	Mineralogy and Optical Min.	2	3	3	GEOL 270	CR	Sedimentology and Stratigraphy	2	3	3
CHEM 102	MS	General Chemistry II	3	4	4	BUS 200	DF	Business & Entrepreneurship	3	0	3
IAS 121	GS	Language Foundation	2	0	2	IAS 111	GS	Belief and its Consequences	2	0	2
ICS 104	DF	Intro to Programm. in Python and C	2	3	3	ENGL 214	GS	Academic and Prof. Comm.	3	0	3
						CGS 392	GS	Career Essentials	0	2	1
<b>Total</b>						<b>Total</b>					
<b>11</b>						<b>12</b>					
<b>13</b>						<b>8</b>					
<b>15</b>						<b>15</b>					

<b>Summer II</b>						GEOL 399	CR	Summer Training	0	0	1
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Junior Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
GEOL 305	CR	Structural Geology	2	3	3	GEOL 315	CR	Petroleum Geology	3	0	3
GEOL 354	CR	Computational Methods in Geology	2	3	3	GEOL 318	CR	Regional Geology	3	0	3
XXX XXX	MS	Laboratory Science Elective	2	3	3	IAS 212	GS	Professional Ethics	2	0	2
XXX XXX	CE	CPG Elective I*	3	0	3	COE 292	DF	Intro to Artificial Intelligence	3	0	3
ISE 291	DF	Introduction to Data Science	3	0	3	XXX XXX	CE	CPG Elective II*	3	0	3
<b>Total</b>						<b>Total</b>					
<b>12</b>						<b>14</b>					
<b>9</b>						<b>0</b>					
<b>15</b>						<b>14</b>					

<b>Summer III</b>						GEOL 430	CR	Field Geology	0	18	6
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Senior Year											
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr
CPG 498	CR	Integrated Design I	0	3	1	CPG 499	CR	Integrated Design II	0	6	2
GEOL 499	CR	Geology Seminar	1	0	1	GS xxx	GS	GS Elective	3	0	3
GEOP 416	CR	Seismic Data Interpretation	3	0	3	IAS xxx	GS	Islamic/Arabic Elective	2	0	2
GEOL 465	CR	Subsurface Geology	3	0	3	XXX XXX	FE	Free Elective II*	3	0	3
XXX XXX	CE	CPG Elective III*	3	0	3	XXX XXX	FE	Free Elective III*	3	0	3
XXX XXX	FE	Free Elective I*	3	0	3						
<b>Total</b>						<b>Total</b>					
<b>13</b>						<b>11</b>					
<b>3</b>						<b>6</b>					
<b>14</b>						<b>13</b>					

**Total Credit Hours 128**

\* CE and FE are to be taken from listed courses

MS	Math and Science	27
GS	General Studies	22
CR	Core Subjects	49
CE	Core Electives	9
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	9
DF	Digital/Business Foundation	12
<b>Total</b>		<b>128</b>
<b>Total Core (CR+CE)</b>		<b>58</b>
<b>Total Engineering (Total Core+EN)</b>		<b>58</b>

## B.S. in BSc in Geophysics

Four-year Academic Plan

Digital/Business Foundation



جامعة الملك فهد للبترول والمعادن  
King Fahd University of Petroleum & Minerals

Freshman Year														
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr			
GEOL 102	CR	Principles of Geology	2	0	2	GEOP 102	CR	Essentials of Geophysics	2	0	2			
GEOL 103	CR	Principles of Geology – Lab	0	3	1	ENGL 102	GS	Intro. to Report Writing	3	0	3			
PETE 101	CR	Intro. to the Petroleum Industry	2	0	2	CHEM 101	MS	General Chemistry I	3	4	4			
MATH 101	MS	Calculus I	4	0	4	MATH 102	MS	Calculus II	4	0	4			
PE 101	GS	Health and Physical Education I	0	2	1	PHYS 102	MS	General Physics II	3	3	4			
ENGL 101	GS	Intro. to Academic Discourse	3	0	3									
PHYS 101	MS	General Physics I	3	3	4									
<b>Total</b>						<b>14</b>	<b>8</b>	<b>17</b>	<b>Total</b>			<b>15</b>	<b>7</b>	<b>17</b>
Summer I														
						CPG 199	CR	Summer Camp	0	0	1			
Sophomore Year														
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr			
GEOP 215	CR	Intod. To Seismic Exploration	3	0	3	GEOP 204	CR	Intro. To Seismology	3	0	3			
ICS 104	DF	Intro to Programm. in Python and	2	3	3	BUS 200	DF	Business & Entrepreneurship	3	0	3			
MATH 201	MS	Calculus III	3	0	3	PHYS 210	MS	Methods of Theoretical Physics	3	0	3			
PHYS 204	MS	General Physics III	3	0	3	IAS 111	GS	Belief and its Consequences	2	0	2			
PHYS 205	MS	General Physics III Lab	0	3	1	ENGL 214	GS	Academic and Prof. Comm.	3	0	3			
IAS 121	GS	Languge Foundation	2	0	2	MATH 202	MS	Elements of Differential Eq.	3	0	3			
						CGS 392	GS	Career Essentials	0	2	1			
<b>Total</b>						<b>13</b>	<b>6</b>	<b>15</b>	<b>Total</b>			<b>17</b>	<b>2</b>	<b>18</b>
Summer II														
						GEOP 399	CR	Summer Training	0	0	1			
Junior Year														
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr			
GEOP 205	CR	Computation al Geophysics	3	0	3	GEOP 304	CR	Gravity and Magnetic Exploration	3	0	3			
GEOL 305	CR	Structural Geology	2	3	3	GEOP 320	CR	Seismic Data Processing	2	3	3			
GEOL 345	CR	Integrated Petroleum Geology	3	3	4	GEOP 353	CR	elec. & electromagnetic Exploration	3	0	3			
ISE 291	DF	Intro to Data Science	3	0	3	IAS 212	GS	Professional Ethics	2	0	2			
PHYS 305	MS	Electricity and Magnetism I	3	0	3	COE 292	DF	Intro to Artificial Intelligence	3	0	3			
<b>Total</b>						<b>14</b>	<b>6</b>	<b>16</b>	<b>Total</b>			<b>13</b>	<b>3</b>	<b>14</b>
Summer III														
						GEOP 490	CR	Geophysics Field Camp	0	9	4			
Senior Year														
Course	Type	Title	LT	LB	Cr	Course	Type	Title	LT	LB	Cr			
CPG 498	CR	Integrated Design I	0	3	1	CPG 499	CR	Integrated Design II	0	6	2			
XXX XXX	CE	CPG Elective I*	3	0	3	GEOP 499	CR	Seminar	1	0	1			
XXX XXX	CE	CPG Elective II*	3	0	3	XXX XXX	FE	Free Elective I*	3	0	3			
GS xxx	GS	GS Elective	3	0	3	XXX XXX	FE	Free Elective II*	3	0	3			
IAS xxx	GS	Islamic/Arabic Elective	2	0	2	XXX XXX	CE	CPG Elective III*	3	0	3			
<b>Total</b>						<b>11</b>	<b>3</b>	<b>12</b>	<b>Total</b>			<b>10</b>	<b>6</b>	<b>12</b>
<b>Total Credit Hours</b>											<b>127</b>			

\* CEs and FEs are to be taken from listed courses

MS	Math and Science	36
GS	General Studies	22
CR	Core Subjects	42
CE	Core Electives	9
EN	Engineering Electives	0
TE	Technical Electives	0
FE	Free Electives	6
DF	Digital/Business Foundation	12
<b>Total</b>		<b>127</b>
<b>Total Core (CR+CE)</b>		<b>51</b>
<b>Total Engineering (Total Core+EN)</b>		<b>51</b>