



**King Fahd University of Petroleum & Minerals  
College of Computer Science and Engineering  
Information and Computer Science Department**

**Free Elective Courses for ICS & SWE Students**

**September 22, 2021**

## Approved Free Elective Courses

ID	DEPT.	CODE	NAME
1.	ARC	124	Computer Aided Architectural Design
2.	ARC	225	Virtual Reality in Architecture
3.	ARE	211	Building Materials
4.	ARE	212	Construction Systems
5.	ARE	322	Building Mechanical Systems
6.	ARE	413	Construction Management
7.	ARE	431	Building Economy
8.	COE	241	Data & Computer Communications
9.	COE	402	Computer System Performance Evaluation
10.	COE	403	Computer Architecture
11.	COE	405	Design and Modeling Digital Systems
12.	COE	420	Parallel Computing
13.	COE	422	Real Time Systems
14.	COE	426	Data Privacy
15.	COE	443	High Speed Networks
16.	COE	445	Internet Engineering and technologies
17.	COE	446	Mobile Computing
18.	COE	466	Quantum Architecture and Algorithm
19.	COE	484	Introduction to Robotics
20.	COE	488	Data Acquisition Interfacing
21.	ISE	303	Operations Research I
22.	ISE	304	Principles of Industrial Costing
23.	ISE	307	Engineering Economic Analysis
24.	ISE	320	Quality Control and Industrial Statistics
25.	ISE	321	Optimization Methods
26.	ISE	323	Work and Process Improvements
27.	ISE	402	Production Systems and Inventory Control
28.	ISE	405	Stochastic Systems and Simulations
29.	ISE	420	Quality Improvement Methods
30.	ISE	421	Operation Research II
31.	ISE	422	Facility Layout and Location
32.	ISE	429	Maintenance Planning and Control
33.	ISE	443	Human Factors Engineering
34.	ISE	447	Decision Making
35.	ISE	460	Industrial Process Re-Engineering
36.	ISE	463	Theory of Stochastic Processes
37.	ISE	464	Industrial Information Systems
38.	ISE	480	Reliability and Maintainability

ID	DEPT.	CODE	NAME
39.	CISE	301	Numerical Methods
40.	MATH	208	Intro. to Differential Equ. & Linear Algebra (Only for SWE Students)
41.	MATH	210	Introduction to Sets and Structures
42.	MATH	225	Introduction to Linear Algebra
43.	MATH	333	Methods of Applied Mathematics I
44.	MATH	302	Engineering Math
45.	MATH	315	Development of Mathematics
46.	MATH	341	Advanced Calculus I
47.	MATH	371	Introduction to Numerical Computing
48.	MATH	353	Euclidean and Non Euclidean Geometry
49.	MATH	323	Modern Algebra I
50.	MATH	325	Linear Algebra
51.	MATH	427	Number Theory
52.	MATH	441	Advanced Calculus II
53.	MATH	467	Graph Theory
54.	MATH	451	Differential Geometry
55.	MATH	474	Linear & Nonlinear Programming
56.	STAT	301	Introduction to Probability Theory
57.	STAT	302	Statistical Inference
58.	STAT	310	Regression Analysis
59.	STAT	320	Statistical Quality Control
60.	STAT	460	Time Series
61.	PHYS	203	Electrical and Magnetic Properties of Materials
62.	PHYS	211	Optics
63.	PHYS	212	Modern Physics
64.	PHYS	215	Introduction to Astronomy
65.	PHYS	261	Energy
66.	PHYS	271	Introduction to Special Relativity
67.	PHYS	301	Classical Mechanics I
68.	PHYS	305	Electricity and Magnetism I
69.	CHEM	102	Principles of Chemical Sciences II
70.	CHEM	201	Organic Chemistry I
71.	CHEM	327	Environmental Chemistry
72.	GEOL	202	Applied Geosciences for Scientists and Engineers
73.	GEOL	303	Sustaining the Earth
74.	GEOP	202	Introduction to Geophysics
75.	GS	318	World Civilization
76.	GS	321	Principles of human behavior
77.	GS	332	Principles of Sociology

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78.	GS	336	Work and Society
79.	GS	342	International Relations
80.	GS	355	Cultural Anthropology
81.	GS	420	Personality Psychology
82.	GS	426	Social Psychology
83.	GS	434	Mass Media and Society
84.	GS	447	Globalization
85.	GS	454	Anthropology of Travel
86.	GS	457	Social Networks
87.	GS	494	Special Topic I
88.	GS	495	Special Topic II
89.	GS	496	Special Topic III
90.	ACCT	110	Intro. to Financial Accounting
91.	ACCT	201	Principles of Accounting I
92.	ACCT	202	Principles of Accounting II
93.	ACCT	210	Intro. to Managerial Accounting
94.	ACCT	300	Accounting Information Systems
95.	ACCT	301	Intermediate Accounting I
96.	ACCT	302	Intermediate ACCT II
97.	ECON	101	Principles of Microeconomics I
98.	ECON	102	Principles of Microeconomics II
99.	ECON	306	Economy of Saudi Arabia
100.	ECON	403	Engineering Economics
101.	ECON	410	International Economics
102.	FIN	250	Financial Management
103.	FIN	315	Corporate Finance
104.	FIN	320	Investments
105.	MGT	210	Business Communication
106.	MGT	250	Principles of Marketing
107.	MGT	301	Principles of Management
108.	MGT	310	Organization Behavior
109.	MGT	311	Legal Environment
110.	MGT	313	Int. Legal Environment
111.	MGT	449	Strategic Management
112.	HRM	301	Human Resources Management
113.	HRM	405	Compensation and Benefits Management
114.	MIS	300	Principles of E-Commerce

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115.	MKT	250	Principles of Marketing
116.	MKT	355	Business Research Methods
117.	MKT	360	Product & Brand Management
118.	MKT	345	Marketing Research
119.	MKT	370	Integrated Marketing
120.	MKT	430	Services Marketing
121.	MKT	410	Consumer Behavior
122.	MKT	420	International Marketing
123.	MKT	450	Strategic Marketing
124.	MKT	470	Personal Selling and Sales Management
125.	MKT	485	Digital Marketing
126.	CHE	200	Principles of Chem. Engineering
127.	CHE	201	Introduction to Chemical Engineering
128.	CHE	204	Fluid Mechanics
129.	CHE	303	Chemical Engineering Thermodynamics
130.	AE	220	Introduction to Aerospace Engineering
131.	AE	325	Gas Dynamics I
132.	AE	333	Aerodynamics I
133.	AE	313	AE Systems and Control
134.	AE	426	Flight Dynamics I
135.	AE	427	Aerospace System Design
136.	AE	403	Aerospace Materials
137.	AE	410	Astronautics
138.	AE	414	Flight and Air Traffic Control
139.	AE	415	Flight and Aviation Safety
140.	AE	416	Flight and Aviation Management
141.	AE	417	Flight and Aviation Law
142.	AE	418	Flight and Aviation Economics
143.	CE	201	Statics
144.	CE	203	Structural Mechanics I
145.	CE	216	Computer Graphics
146.	CE	230	Engineering Fluid Mechanics
147.	CE	318	Numerical & Statistical Methods in Civil Engineering
148.	CE	335	Engineering Hydrology
149.	CE	330	Environmental Engineering Principles
150.	CE	341	Transportation Engineering
151.	CE	422	Construction Management and Economy
152.	EE	201	Electric Circuits I
153.	EE	203	Electronics I
154.	EE	204	Fundamentals of Electrical Circuits

<b>ID</b>	<b>DEPT.</b>	<b>CODE</b>	<b>NAME</b>
155.	EE	205	Electric Circuits II
156.	EE	206	Introduction to Electrical Systems and Computations
157.	EE	207	Signals & Systems
158.	EE	236	Electronic Circuits (Non-EE Students)
159.	EE	303	Electronics II
160.	EE	390	Digital Systems Engineering
161.	ME	201	Dynamics
162.	ME	203	Thermodynamics I
163.	ME	210	ME Drawing & Graphics
164.	ME	204	Thermodynamics II
165.	ME	216	Materials Science and Engineering
166.	ME	301	Machine Design I
167.	ME	424	Maintenance Engineering