



**Dhofar University**

**College of Engineering**

**Department of  
Electrical and Computer Engineering**

**Bachelor of Science in  
Computer and Communications Engineering  
Plan of Study**

**September 2025**



# Bachelor Study Plan

## 1- Program Statistics by Course Category

Course Category	No. of Courses	Credit Hours	Percentage of Total Credit Hours
University Requirements	9	27	19.57%
College Requirements	11	30	21.74%
Program Core Requirements	29	65	47.1%
Program Elective Courses	5	13	9.42%
General Elective	1	3	2.17%
<b>Total</b>	<b>55</b>	<b>138</b>	<b>100%</b>

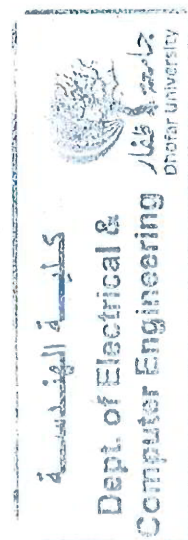
## 2- Classification of Requirements

### 2.1 University Requirements

Course Code	Course Title	Credit Hours	Prerequisite	Co-requisite
ARAB 101	Academic Writing in Arabic	3	FPE 103C / FPEL 100	-
ENGL 101	Basic Academic English	3	FPE 103C	-
ENGL 102E	English for Engineering and Sciences I	3	ENGL 101	-
ENGL 203E	English for Engineering and Sciences II	3	ENGL 102E / ENGL 102C	-
ENGL 204	Advanced English for Academic Purposes and Research	3	ENGL 203E	-
ENGL 305	Advanced English Language and Communication Skills	3	ENGL 204	-
ENTR 200	Entrepreneurship: Innovation and Creativity	3	ENGL 203E	-
MATH 199	Calculus I	3	FPE 103C + FPM 101A + FPM 102B	-
SOCS 102	Omani Society	3	FPE 103C + FPEL 100	-
<b>Total Credits</b>		<b>27</b>		

## 2.2 College Requirements

Course Code	Course Title	Credit Hours	Prerequisite	Co-requisite
EECE 130	Computers and Programming I	3	FPE 103C + FPM 102B + FPT 102B	-
ENGR 100	Introduction to Engineering	3	FPE 103C + FPM 102B + FPT 102B	-
ENGR 105	Engineering Graphics	2	FPE 103C	-
ENGR 110	Engineering Workshop	1	FPE 103C + FPM 101A + FPM 102B	-
ENGR 300	Engineering Economy	3	ENGR 100 + MATH 199	-
MATH 200	Calculus II	3	MATH 199	-
MATH 205	Calculus III	3	MATH 200	-
MATH 210	Differential Equations	3	MATH 200	-
MATH 250E	Probability and Statistics	3	MATH 200	MATH 200
MATH 335	Mathematics for Science and Engineering	3	MATH 205 + MATH 210	-
PHYS 170	Fundamentals of Physics I	3	MATH 199 / MATH 103	MATH 199
<b>Total Credits</b>		<b>30</b>		



## 2.3 Program Major (Compulsory) Requirements

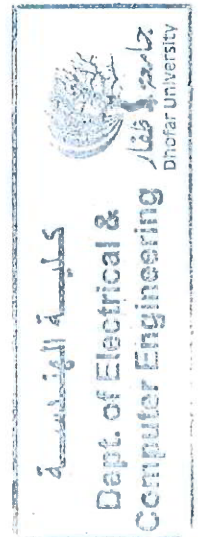
Course Code	Course Title	Credit Hours	Prerequisite	Co-requisite
CHEM 130	Chemical Principles I	3		-
EECE 130L	Computers and Programming Laboratory	1	EECE 130	-
EECE 210	Electric Circuits I	3	PHYS 170	-
EECE 210L	Electric Circuits Laboratory I	1	EECE 210	-

EECE 211	Electric Circuits II	3	EECE 210	-
EECE 211L	Electric Circuits Laboratory II	1	EECE 211	EECE 211
EECE 212	Basic Electronics	3	EECE 210	EECE 210
EECE 212L	Basic Electronics Laboratory	1	EECE 212	EECE 212
EECE 220	Digital Systems Design	3	EECE 210	-
EECE 220L	Digital Systems Laboratory	1	EECE 220	-
EECE 221	Microprocessor Systems	3	EECE 220	-
EECE 221L	Microprocessor Laboratory	1	EECE 221	-
EECE 222	Discrete Mathematics for Engineers	3	MATH 205	-
EECE 230	Computers and Programming II	3	EECE 130	-
EECE 311	Data Structures and Algorithms	3	EECE 230 + EECE 130L	-
EECE 320	Computer Organization and Architecture	3	EECE 221	OEP 100C
EECE 330	Software Engineering	3	EECE 311	
EECE 340	Signals and Systems	3	MATH 335 + EECE 210	MATH 335
EECE 342	Communication Systems	3	EECE 340	EECE 340
EECE 342L	Communication System Laboratory	1	EECE 342	EECE 342
EECE 343	Electromagnetic Field Theory	3	MATH 335	MATH 335
EECE 400	Practical Training	0		-
EECE 401	Final Year Project I	0	>90 credits	-
EECE 402	Final Year Project II	3	< EECE 401	-

EECE 470	Computer Networks	3	< MATH 335 + EECE 342	EECE 342
EECE 490	Digital Signal Processing	3	EECE 340	
MATH 277	Linear Algebra I	3	< MATH 210	-
PHYS 170L	Introductory Physics Laboratory	1	PHYS 170	PHYS 170
PHYS 210	Fundamentals of Physics II	3	PHYS 170 / MATH 200	MATH 200
<b>Total Credits</b>		<b>65</b>		

#### 2.4 Program Elective Courses

Course Code	Course Title	Credit Hours	Prerequisite	Co-requisite
EECE 350	Fundamentals of Electric Power Engineering	3	EECE 211	-
EECE 360	Control Systems	3	EECE 340	EECE 340
EECE 361	Power Systems I	3	EECE 211	-
EECE 362	Introduction to Electric Machines	3	EECE 211 + EECE 343	EECE 343
EECE 410	Advanced Computer Architecture	3	EECE 320	-
EECE 411	Computer System Analysis	3	EECE 320	-
EECE 412	Computer Graphics	3	EECE 320	-
EECE 413	Embedded System Design	3	EECE 221	-
EECE 414	Fault Tolerant Computing	3	EECE 220	-
EECE 422	Information Theory and Coding	3	MATH 335	-
EECE 424	Data Communication Networks	3	EECE 470	-
EECE 430	Design and Applications of Information Systems	3	EECE 330	-



EECE 432	Distributed Object-Oriented Systems	3	EECE 330	-
EECE 433	Database Management Systems	3	EECE 230	-
EECE 437	Optimizing Compilers	3	EECE 231 + EECE 320	-
EECE 439	Object-Oriented Systems	3	EECE 330	-
EECE 440	Fiber Optics	3	EECE 342	-
EECE 443	Microwave Communication Systems	3	EECE 342	-
EECE 444	Environmental Impacts of Energy Systems	3	ENGR 100	-
EECE 450	Artificial Intelligence	3	EECE 311	-
EECE 452	Neural Networks	3	EECE 311	-
EECE 460	Digital Controls	3	EECE 360	-
EECE 461	Instrumentation	3	EECE 221	-
EECE 462	Power Electronics	3	EECE 212	-
EECE 463	Power Systems II	3	EECE 361	-
<b>Total Credits</b>		<b>12</b>		



### 2.5 Lab Elective Courses

Course Code	Course Title	Credit Hours	Prerequisite	Co-requisite
EECE 330L	Object Oriented Technologies Laboratory	1	EECE 230	-
EECE 361L	Power Systems Simulation Laboratory	1	EECE 361	EECE 361
EECE 370L	Web Programming Laboratory	1	EECE 130	-
EECE 413L	Embedded System Design Laboratory	1	EECE 413	EECE 413

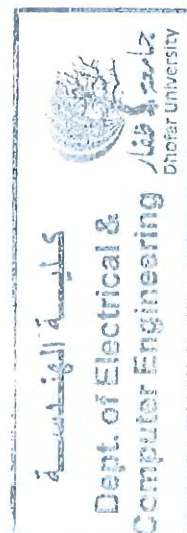
EECE 421L	Computer Interfacing Laboratory	1	< EECE 130 + EECE 220	EECE 220
EECE 422L	Information Theory and Coding Laboratory	1	EECE 422	EECE 422
EECE 460L	Control Systems Laboratory	1	EECE 360	EECE 360
<b>Total Credits</b>		<b>1</b>		

### 2.6 General Elective Courses

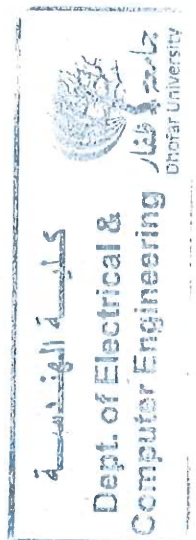
Course Code	Course Title	Credit Hours	Prerequisite	Co-requisite
00XXX	General Elective	3	As per course	-
<b>Total Credits</b>		<b>3</b>		

## 3- Study Plan

Year 1				
Course Code	Course Title	Credit Hours	Prerequisite	University/ College/Major/ Elective requirements
<i>Fall</i>				
SOCS 102	Omani Society	3	< FPE 103C + < FPEL 100	U
ENGL 101	Basic Academic English I	3	< FPE 103C	U
MATH 199	Calculus I	3	< FPE 103C + < FPM 101A + < FPM 102B	U
PHYS 170	Fundamentals of Physics I	3	<= MATH 199 / < MATH 103	C
PHYS 170L	Introductory Physics Laboratory	1	<= PHYS 170	M
ENGR 105	Engineering Graphics	2	< FPE 103C	C
CHEM 130	Chemical Principles I	3		M
<b>Total Credits</b>		<b>18</b>		

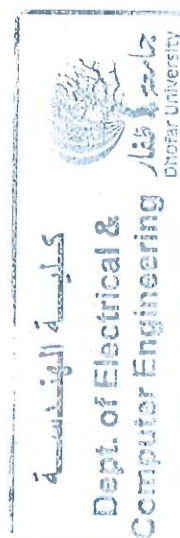


<i>Spring</i>				
EECE 130	Computers and Programming I	3	< FPE 103C + < FPM 102B + < FPT 102B	C
EECE 130L	Computers and Programming Laboratory	1	< EECE 130	M
EECE 210	Electric Circuits I	3	< PHYS 170	M
ENGL 102E	English for Engineering and Sciences I	3	< ENGL 101	U
ENGR 100	Introduction to Engineering	3	< FPE 103C + < FPM 102B + < FPT 102B	C
MATH 200	Calculus II	3	< MATH 199	C
ENGR 110	Engineering Workshop	1	< FPE 103C + < FPM 101A + < FPM 102B	C
<b>Total Credits</b>		<b>17</b>		
<i>Summer</i>				
ENGL 203E	English for Engineering and Sciences II	3	< ENGL 102E / < ENGL 102C	U
MATH 205	Calculus III	3	< MATH 200	C
<b>Total Credits</b>		<b>6</b>		



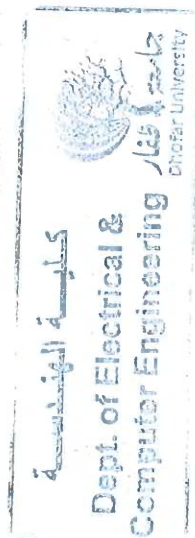
<b>Year 2</b>				
<b>Course Code</b>	<b>Course Title</b>	<b>Credit Hours</b>	<b>Prerequisite</b>	<b>University/College/Major/Elective requirements</b>
<i>Fall</i>				
EECE 211	Electric Circuits II	3	< EECE 210	M
EECE 210L	Electric Circuits Laboratory I	1	< EECE 210	M
EECE 220	Digital Systems Design	3	< EECE 210	M

EECE 230	Computers and Programming II	3	< EECE 130	M
EECE 222	Discrete Mathematics for Engineers	3	< MATH 205	M
PHYS 210	Fundamentals of Physics II	3	< PHYS 170 / <= MATH 200	M
EECE 211L	Electric Circuits Laboratory II	1	<= EECE 211	M
<b>Total Credits</b>		<b>17</b>		
<b>Spring</b>				
EECE 212	Basic Electronics	3	<= EECE 210	M
EECE 212L	Basic Electronics Laboratory	1	<= EECE 212	M
EECE 220L	Digital Systems Laboratory	1	< EECE 220	M
EECE 221	Microprocessor Systems	3	< EECE 220	M
MATH 250E	Probability and Statistics	3	<= MATH 200	C
MATH 210	Differential Equations	3	< MATH 200	C
ENTR 200	Entrepreneurship: Innovation and Creativity	3	< ENGL 203E	U
<b>Total Credits</b>		<b>17</b>		
<b>Summer</b>				
MATH 277	Linear Algebra I	3	< MATH 210	M
<b>Total Credits</b>		<b>3</b>		



Year 3				
Course Code	Course Title	Credit Hours	Prerequisite	University/College/Major/Elective requirements
<b>Fall</b>				
EECE 221L	Microprocessor Laboratory	1	< EECE 221	M
EECE 343	Electromagnetic Field Theory	3	<= MATH 335	M

EECE 311	Data Structures and Algorithms	3	< EECE 230 + < EECE 130L	M
ENGL 204	Advanced English for Academic Purposes and Research	3	< ENGL 203E	U
ENGR 300	Engineering Economy	3	< ENGR 100 + < MATH 199	C
MATH 335	Mathematics for Science and Engineering	3	< MATH 205 + < MATH 210	C
<b>Total Credits</b>		<b>16</b>		
<b>Spring</b>				
EECE 320	Computer Organization and Architecture	3	= OEP 100C + < EECE 221	U
EECE 340	Signals and Systems	3	<= MATH 335 + < EECE 210	M
EECE 330	Software Engineering	3	< EECE 311	M
EECE XXX	Major Elective	3		E
EECE XXXL	Major Elective Laboratory	1		E
EECE XXX	Major Elective	3		E
<b>Total Credits</b>		<b>16</b>		
<b>Summer</b>				
EECE 400	Practical Training	0		M
<b>Total Credits</b>		<b>0</b>		



Year 4				
Course Code	Course Title	Credit Hours	Prerequisite	University/College/Major/Elective requirements
<b>Fall</b>				
EECE 401	Final Year Project I	0	(>95credits)	M
EECE 342	22.500 Communication Systems	3	22.500 EECE 340	M

ARAB 101	Academic Writing in Arabic	3	< FPE 103C / < FPEL 100	U
EECE XXX	Major Elective	3		E
ENGL 305	Advanced English Language and Communication Skills	3	< ENGL 204	E
EECE 470	Computer Networks	3	< MATH 335 + <= EECE 342	M
EECE 342L	Communication Systems Laboratory	1	<= EECE 342	E
<b>Total Credits</b>		<b>16</b>		
<i>Spring</i>				
EECE 402	Final Year Project II	3	< EECE 401	M
EECE 490	Digital Signal Processing	3	< EECE 340	M
EECE XXX	Major Elective	3		E
XXX	General Elective	3		E
<b>Total Credits</b>		<b>12</b>		

**Total 138**

Dr. J. J. J.

