

Degree and Study Plan

College: Engineering

Department: Electrical and Computer Engineering

Cohort: **2016**

Degree: Bachelor of Engineering (B. Eng.)

Major: Electrical and Computer Engineering (ECE)

Specializations: 1. Communications and Signal Processing (CSP)

2. Computer Systems and Networks (CSN)

3. Electronic Instrumentation and Control (EIC)

4. Power Systems and Energy (PSE)

		Summary of Credits	
Category		Courses	Total Credit Hours
University Requirements	(UR)	-General Foundation Program -Arabic -Contemporary Omani Society -Oman & Islamic Civilization or Islamic Culture	0 3 1 2
University Elective	(UE)	List (A)	6
College Requirements	(CR)	List (B)	32
College Electives	(CE)	List (C)	3
Departmental Requirements	(DR)	List (D)	56
Departmental Elective	(DE)	List (E)1	0
Major Requirements	(AR)	List (F) ¹	0
Major Electives	(AE)	List (G)1	0
Specialization Requirements	(SR)	List (H)	24
Specialization Electives	(SE)	List (I)	9 (3-courses) <u>or</u> 3 (1-course) + 6 (of Co-Op)
Minor Requirement	(IR)	List (J) ¹	0
Minor Elective	(IE)	List (K) ¹	0
	, , ,	Total Credits	136

Important Information:

Student is to follow one of the three schemes of the degree plan:

1. **Scheme-I** is for students who by-passed the Foundation Program or those who completed the

Foundation Program in one regular semester (Fall)

2. **Scheme-II** is for students who completed the Foundation Program in two regular semesters

(Fall & Spring)

3. Co-Operative Training (Co-Op) Scheme (introduced in April 2020)

is optional. It is designed for students who are following Scheme-I or Scheme-II and willing to take a one-year Co-Op program after finishing semester 8.

For reference please contact:	Dr. Ahmed Al Maashri (HoD)	Ext:	1330/1390/1363
HoD:	السلطان و المسلطان و ا	Date:	29 th June 2022
Dean:		Date	29 / 6/ 2022
A&R:		Date:	·
	Con For Under or the Control of the		

¹ Not attached as no courses for ECE department

College of Engineering

		Department of e and Stuc		•	_	
	Course Code		Cr.	Pre-Requisites		Ca

- I 0	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-l Sem-1 Fall 2016	-	General Foundation Program	-	-	UR
<u>Ω</u> .π		Total Credits	-		
	HIST1010 or ISLM1010	Oman & Islamic Civilization or Islamic Culture	2		UR
ન જ ૄ	CHEM1071	General Chemistry for Engineering	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109)	CR
Scheme-I Semester-2 Spring 2017	ENGR1501	Introduction to Engineering	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
ring me	ENGR1600	Workshop I	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
^{လ၊} % 	LANC2160	English for Engineering I	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	MATH2107	Calculus I	4	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109)	CR
		Total Credits	14	,	
	ARAB1001	Arabic	3		UR
		University Elective	2		UE
-12 ~	SOCY1001	Contemporary Omani Society	1		UR
ste 201	LANC2161	English for Engineering II	3	LANC2160	CR
Scheme- Semester-3 Fall 2017	MATH2108	Calculus II	3	MATH2107	CR
တ၊ မွာ ၊	PHYS2107	Physics for Engineering I	4	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109), MATH2107	CR
		Total Credits	16		
	ECCE2016	Circuit Analysis I	3	MATH2107	AR
	ECCE3206	Digital Logic Design	3		AR
Scheme-I Semester-4 Spring 2018	MATH3171	Linear Algebra & Multivariate Calculus for Engineers	3	MATH2108 + LANC2161	CR
m me	PHYS 2108	Physics for Engineering II	4	PHYS2107 OR PHYS2101	CR
_{ଧା} % ତ୍ରି	COMP2002 ²	Introduction to Computer Programming for Engineers	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPCS (0101 or 0102)	CE
		Total Credits	16	,	
	ECCE3016	Circuit Analysis II	3	ECCE2016	AR
ᅴᅐ	ECCE3152	Electronics I	3	ECCE2016	AR
Scheme-I Semester-5 Fall 2018	ECCE3022	Electromagnetics I	3	PHYS2108 + MATH 3171	AR
al in	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
യി ഉ ന്	MATH4174	Differential Equations for Engrs.	3	MATH2108 + LANC2161	CR
		Total Credits	15		
	ECCE3142	Signals & Systems	3	ECCE3016	AR
10.00	ECCE3352	Electrical Technology	3	ECCE3016	AR
ster-6 3 2019	MATH4176	Numerical Analysis for Engineers	3	MATH3171 and MATH4174 and [COMP2002 or ENGR2217]	AR
Scheme-I Semester-6 Spring 2019	ECCE4227	Embedded Systems	3	COMP2002 OR ENGR2217 + ECCE3206 + (ECCE3152 or MCTE3110)	AR
0,0	STAT2103	Probability for Engineers	3	MATH2107	AR
		Total Credits	15		

² OR ENGR 2217-Programming for Engineers

		Degree and Study Plan:	2016 (Cohort (Scheme-I)	
	Communi	ications and Signa	al Pro	ocessing Specialization	
	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
_ 1	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
Scheme- Semester-7 Fall 2019	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
Schall Sc	ECCE4022	Electromagnetics II	3	ECCE3022	SR
· ν –	ECCE4158	Electronics II	3	ECCE3152	AR
		University Elective	2		UE
		Total Credits	14		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
ب		Total Credits	0		
	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
기 20 20	ECCE4082	Professional Skills	1	LANC2161	AR
Scheme- Semester-8 Spring 2020	ECCE5112	Antennas & Wave Propagation	3	ECCE4022	SR
ing ing	ECCE4126	Principles of Digital Comm.	3	ECCE4122	SR
Ser Ser	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
		Total Credits	15		
<u>2020</u>	ENGR4006	Industrial Training II	-	ENGR3006	CR
ਲ ਕ		Total Credits	0		
	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
고 6 - 1 년 0	ECCE5009	Project (Part I)	2	ECCE4010 and PR ³	AR
Scheme- Semester-9 Fall 2020	ECCE5123	Optical Communications	3	ECCE4122	SR
a is	ECCE5124	Wireless Communications	3	ECCE4122	SR
ഗ്രി ട്ട ്	ECCE5143	Advanced Digital Signal Proc.	3	ECCE4142 + ECCE4227	SR
	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
		Total Credits	17		
2 5_	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
Scheme- Semester-10 Spring 2021	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
est ng	ECCE5099	Project (Part II)	3	ECCE5009	AR
Pri M	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
S		University Elective	2		UE
		Total Credits	14		

 $^{^3}$ Internal regulation [enforced by the ECE Department]. ECCE5009 will be available only in each Fall semester. 4 Or ECCE4xxx

		Degree and Study Plan:	2016	Cohort (Scheme-I)	
	Comp	uter Systems and	Net	work Specialization	
	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
me- ster-7 2019	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
Scheme- Semester-7 Fall 2019	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
O,	ECCE4158	Electronics II	3	ECCE3152	AR
		University Elective	2		UE
		Total Credits	14		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
ъ Б		Total Credits	0		
	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
3r-8 020	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
Scheme-I Semester-8 Spring 2020	ECCE4254	Operating Systems	3	COMP2002 OR ENGR2217 & also Incompatible with ECCE5231	SR
S S S	ECCE4257	Applied Algorithms for ECE	3	COMP2002 OR ENGR2217+ECCE3258	SR
	ECCE5214	Advanced Logic & Computer Interfacing	3	ECCE4227	SR
		Total Credits	15		
<u>2020</u>	ENGR4006	Industrial Training II	-	ENGR3006	CR
ଅ ଦ		Total Credits	0		
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR ³	AR
기 등 8	ECCE5xxx4	Track Elective	3	Offered course-specific	SE
ste 202	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
Scheme-I Semester-9 Fall 2020	ECCE5223	Advanced Embedded Systems Design	3	ECCE4227	SR
		University Elective	2		UE
		Total Credits	16		
	ECCE5099	Project (Part II)	3	ECCE5009	AR
0 -	ECCE5242	Advanced Computer Networks	3	ECCE4242	SR
Scheme-lemester-10 pring 202	ECCE5232	Computer Architecture and Organization	3	ECCE4227	SR
Scheme-I Semester-10 Spring 2021	ECCE5215	Computing Systems for Engineering Applications	3	ECCE4242	SR
0, 0,	ECCE5xxx ⁴	Track Elective	3	Offered course specific	SE
		Total Credits	15		

		Degree and Study Plan:		· · · · · · · · · · · · · · · · · · ·	
	Electroni	c Instrumentation	and	Control Specialization	
	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
Scheme-I Semester-7 Fall 2019	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
Sche Seme Fall	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE4158	Electronics II	3	ECCE3152	AR
		University Elective	2		UE
		Total Credits	14		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Total Credits	0		
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
æ O	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
er-	ECCE4082	Professional Skills	1	LANC2161	AR
Scheme-  Semester-8 Spring 2020	ECCE4358	Electrical Machines	3	ECCE3352	SR
Sc em pri	ECCE4455	Sensors and Actuators	3	ECCE3036	SR
	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or MCTE3210)	SR
		Total Credits	15		
2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
<i>ର</i> ା <b>୯</b>		Total Credits	0		
	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
-16.0	ECCE5009	Project (Part I)	2	ECCE4010 and PR ³	AR
Scheme-  Semester-9 Fall 2020	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
che me all ;	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
<u>S</u> <u>Θ</u> <u>π</u>	ECCE5452	Computer-Aided Instrumentation	3	ECCE4456 or ECCE4455+ ECCE4227	SR
		University Elective	2		UE
	E00E5000	Total Credits	16		4.5
	ECCE5099	Project (Part II)	3	ECCE5009	AR
0 -	ECCE5445	Control System Design	3	ECCE4416 or MCTE4250	SR
년 202 11년	ECCE4436	Industrial Control Systems Design	3	ECCE4416	SR
Scheme-I Semester-10 Spring 2021	ECCE5231	Industrial Networks and Operating Systems	3	ECCE4227 and COMP2002 & also Incompatible with ECCE4242 and ECCE4254	SR
	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
		Total Credits	15		

#### Degree and Study Plan: 2016 Cohort (Scheme-I) **Power Systems and Energy Specialization** Cr. **Pre-Requisites Course Code Course Title** Cat. ECCE3038 Elect. Measurements & Instr. 2 ECCE3016+ECCE3152 AR ECCE4022 Electromagnetics II 3 ECCE3022 SR Scheme-I Semester-7 Fall 2019 3 ECCE4312 Power System Analysis I ECCE3352 SR 3 ECCE4358 **Electrical Machines** ECCE3352 SR ECCE4158 Electronics II 3 AR ECCE3152 ECCE3258 Applied Engineering Programming 1 COMP2002 OR ENGR2217 AR **Total Credits** 15 **ENGR3006** Industrial Training I ECCE3152 CR Jan 20 **Total Credits** 0 ECCE4010 Engineering Design and 2 ECCE3142+ECCE3352+ECCE3152+ECCE3206 AR Professional Ethics Professional Skills ECCE4082 1 **LANC2161** AR Scheme-I Semester-8 Spring 2020 3 ECCE4122 Principles of Analog & Digital ECCE3142+ STAT2103 AR Communication 3 ECCE4316 Power System Analysis II ECCE4312 SR **ECCE4467** Power Electronics & Drives 3 (ECCE3152 or MCTE3110)+ (ECCE3352 SR or MCTE3210) University Elective 2 UΕ **Total Credits** 14 Industrial Training II **ENGR3006** CR **ENGR4006** Summer **2020 Total Credits** 0 AR ECCE4416 Linear Control Systems 3 ECCE3142 2 ECCE5009 Project (Part I) ECCE4010 and PR3 AR Scheme-l Semester-9 Fall 2020 SR ECCE5302 Power Systems Protection 3 ECCE4316 SR ECCE5332 High Voltage Engineering 3 ECCE4312 SR 3 ECCE5303 Power Distribution System Eng. ECCE4312 Track Elective 3 SE ECCE5xxx4 Offered course specific **Total Credits** 17 ECCE5004 Engineering Management & 3 STAT2103 AR Scheme-I Semester-10 Spring 2021 Economics I 3 ECCE5099 Project (Part II) **ECCE5009** AR 3 ECCE5xxx4 Track Elective Offered course specific SE 3 SE ECCE5xxx4 Track Elective Offered course specific 2 UE University Elective **Total Credits** 14

# Department of Electrical and Computer Engineering Degree and Study Plan: 2016 Cohort (Scheme-II)

=1 6	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-II Sem-1 Fall 2016	-	General Foundation Program	-	-	UR
S E		Total Credits			
_, _					ПП
Scheme-II Sem-2 Spring 17	•	General Foundation Program	•	-	UR
S &		Total Credits	-		
	HIST1010 or ISLM1010	Oman & Islamic Civilization or Islamic Culture	2		UR
Scheme-II Semester-3 Fall 2017	CHEM1071	General Chemistry for Engineering	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109)	CR
Scheme-II emester- Fall 2017	ENGR1501	Introduction to Engineering	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
che all all	LANC2160	English for Engineering I	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
SI S II	ENGR1600	Workshop I	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	MATH2107	Calculus I	4	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109)	CR
		Total Credits	14		
	ARAB1001	Arabic	3		UR
	SOCY1001	Omani Contemporary Society	1		UR
=12 €	LANC2161	English for Engineering II	3	LANC2160	CR
ste 3 20	MATH2108	Calculus II	3	MATH2107	CR
Scheme-II Semester-4 Spring 2018	PHYS2107	Physics for Engineering I	4	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109), MATH2107	CR
		University Elective	2		UE
		Total Credits	16		
<u>∞</u>	ECCE2016	Circuit Analysis I	3	MATH2107	AR
SU18	ECCE3206	Digital Logic Design	3		AR
		Total Credits	6		4.0
	ECCE3152	Electronics I	3	ECCE2016	AR
를 2 2 2 2 2 3 3 3 4 3 4 3 4 3 4 3 4 3 4 3	COMP2002 ²	Introduction to Computer Programming for Engineers	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPCS (0101 or 0102)	CE
Scheme-II Semester-5 Fall 2018	MATH3171	Linear Algebra & Multivariate Calculus for Engineers	3	MATH2108 + LANC2161	CR
S 8	MATH4174	Differential Equations for Engrs.	3	MATH2108 + LANC2161	CR
	PHYS 2108	Physics for Engineering II	4	PHYS2107 OR PHYS2101	CR
		Total Credits	16		
	ECCE3016	Circuit Analysis II	3	ECCE2016	AR
(C. C.	ECCE3022	Electromagnetics I	3	PHYS2108 + MATH 3171	AR
Scheme-II Semester-6 Spring 2019	ECCE4227	Embedded Systems	3	COMP2002 OR ENGR2217 + ECCE3206 + (ECCE3152 or MCTE3110)	AR
Sche Seme Sprinç	MATH4176	Numerical Analysis for Engineers	3	MATH3171 and MATH4174 and [COMP2002 or ENGR2217]	AR
	STAT2103	Probability for Engineers	3	MATH2107	AR
		Total Credits	15		
0	ECCE3142	Signals & Systems	3	ECCE3016	AR
SU19	ECCE3352	Electrical Technology	3	ECCE3016	AR
S		Total Credits	6		

#### Degree and Study Plan: 2016 Cohort (Scheme-II) **Communications and Signal Processing Specialization** Course Code **Course Title** Cr. **Pre-Requisites** Cat. ECCE3038 Elect. Measurements & Instr. 2 ECCE3016+ECCE3152 AR **ECCE3258** Applied Engineering Programming 1 COMP2002 OR ENGR2217 AR Scheme-II Semester-7 Fall 2019 AR MATH4151 Discrete Math and Complex Analy. 3 MATH3171 Principles of Analog & Digital 3 ECCE3142+ STAT2103 ECCE4122 AR Communication 3 ECCE4022 Electromagnetics II ECCE3022 SR ECCE4158 Electronics II 3 ECCE3152 AR 15 **Total Credits ENGR3006** ECCE3152 CR Industrial Training I Jan 20 **Total Credits** 0 ECCE4010 Engineering Design and 2 ECCE3142+ECCE3352+ECCE3152+ECCE3206 AR Professional Ethics Scheme-II Semester-8 Spring 2020 1 ECCE4082 Professional Skills **LANC2161** AR Antennas & Wave Propagation 3 ECCE5112 ECCE4022 SR ECCE4126 Principles of Digital Comm. 3 ECCE4122 SR ECCE4142 Digital Signal Processing 3 ECCE3142 SR 3 **Linear Control Systems** AR ECCE4416 ECCE3142 **Total Credits** 15 **ENGR4006** Industrial Training II **ENGR3006** CR Summer **2020 Total Credits** 0 ECCE4242 ECCE4227 or COMP3518 or COMP3501 SR Introduction to Computer 3 Networks & also Incompatible with ECCE5231 ECCE5009 2 Project (Part I) ECCE4010 and PR3 AR ECCE5123 **Optical Communications** 3 ECCE4122 SR 3 ECCE5124 Wireless Communications ECCE4122 SR 3 ECCE5143 ECCE4142 + ECCE4227 Advanced Digital Signal Proc. SR 3 ECCE5xxx4 Track Elective Offered course-specific SE **Total Credits** 17 Engineering Management & ECCE5004 3 STAT2103 AR Economics I Scheme-II Semester-10 Spring 2021 3 SE ECCE5xxx4 Track Elective Offered course-specific 3 ECCE5099 Project (Part II) ECCE5009 AR ECCE5xxx4 Track Elective 3 Offered course-specific SE 2 University Elective UΕ 2 UE University Elective **Total Credits** 16

		Degree and Study Plan:			
	Comp	outer Systems and	Net	work Specialization	
	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
일 15 6	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
Scheme-II Semester-7 Fall 2019	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
လ <b>၊ လ</b>	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE4158	Electronics II	3	ECCE3152	AR
		Total Credits	15		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
7		Total Credits	0		
	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
er-8 2020	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
Scheme-II Semester-8 Spring 2020	ECCE4254	Operating Systems	3	COMP2002 OR ENGR2217 & also Incompatible with ECCE5231	SR
SI 88 92	ECCE4257	Applied Algorithms for ECE	3	COMP2002 OR ENGR2217+ECCE3258	SR
	ECCE5214	Advanced Logic & Computer Interfacing	3	ECCE4227	SR
		Total Credits	15		
2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
_ত । <b>८</b>		Total Credits	0		
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR ³	AR
일 등 8	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
20 <b>35</b> (S	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
Scheme-II Semester-9 Fall 2020	ECCE5223	Advanced Embedded Systems Design	3	ECCE4227	SR
		University Elective	2		UE
	E00EE000	Total Credits	16	F00F5000	4.5
	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5242	Advanced Computer Networks	3	ECCE4242	SR
ne-II ter-10	ECCE5232	Computer Architecture and Organization	3	ECCE4227	SR
Scheme-II Semester-10 Spring 2021	ECCE5215	Computing Systems for Engineering Applications	3	ECCE4242	SR
တ တ	ECCE5xxx ⁴	Track Elective	3	Offered course specific	SE
		University Elective	2		UE
		Total Credits	17		

		Degree and Study Plan:	2016 C	Cohort (Scheme-II)	
	<b>Electroni</b>	c Instrumentation	and	<b>Control Specialization</b>	
	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
13년	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
Scheme-II Semester-7 Fall 2019	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
S <b>S</b>	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE4158	Electronics II	3	ECCE3152	AR
		Total Credits	15		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
بي		Total Credits	0		
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
. 80 0	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
e-II	ECCE4082	Professional Skills	1	LANC2161	AR
Scheme-II Semester-8 Spring 2020	ECCE4358	Electrical Machines	3	ECCE3352	SR
Sch em prii	ECCE4455	Sensors and Actuators	3	ECCE3036	SR
3100 W	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or MCTE3210)	SR
		Total Credits	15		
2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
ज <b>ा २</b>		Total Credits	0		
	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
Scheme-II Semester-9 Fall 2020	ECCE5009	Project (Part I)	2	ECCE4010 and PR ³	AR
ste 202	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
me Sle	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
S S	ECCE5452	Computer-Aided Instrumentation	3	ECCE4456 or ECCE4455+ ECCE4227	SR
		University Elective	2		UE
		Total Credits	16		
	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5445	Control System Design	3	ECCE4416 or MCTE4250	SR
10 10 21	ECCE4436	Industrial Control Systems Design	3	ECCE4416	SR
Scheme-II Semester-10 Spring 2021	ECCE5231	Industrial Networks and Operating Systems	3	ECCE4227 and COMP2002 & also Incompatible with ECCE4242 and ECCE4254	SR
တ တ	ECCE5xxx ⁴	Track Elective	3	Offered course-specific	SE
		University Elective	2		UE
		Total Credits	17		

		Degree and Study Plan:	2016 C	Cohort (Scheme-II)	
	Pov	wer Systems and I	Energ	gy Specialization	
	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
-11-	ECCE4022	Electromagnetics II	3	ECCE3022	SR
Scheme-II Semester-7 Fall 2019	ECCE4312	Power System Analysis I	3	ECCE3352	SR
em en	ECCE4358	Electrical Machines	3	ECCE3352	SR
01 <b>%</b> -	ECCE4158	Electronics II	3	ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
		Total Credits	15		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
b B		Total Credits	0		
	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
=1.5°20	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
Scheme-II Semester-8 Spring 2020	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
Ser	ECCE4316	Power System Analysis II	3	ECCE4312	SR
<i></i>	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or MCTE3210)	SR
		Total Credits	15	,	
2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
<i>ज</i> । <b>२</b>		Total Credits	0		
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
. ത	ECCE5009	Project (Part I)	2	ECCE4010 and PR ³	AR
Scheme-II Semester-9 Fall 2020	ECCE5302	Power Systems Protection	3	ECCE4316	SR
Scheme-II emester- Fall 2020	ECCE5332	High Voltage Engineering	3	ECCE4312	SR
Sch em Fal	ECCE5303	Power Distribution System Eng.	3	ECCE4312	SR
ο ₁ ω _	ECCE5xxx ⁴	Track Elective	3	Offered course specific	SE
		Total Credits	17		
	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
=12 10 12 10	ECCE5099	Project (Part II)	3	ECCE5009	AR
Scheme-II Semester-10 Spring 2021	ECCE5xxx ⁴	Track Elective	3	Offered course specific	SE
nes inç	ECCE5xxx ⁴	Track Elective	3	Offered course specific	SE
Sen		University Elective	2		UE
0, 0,		University Elective	2		UE
		Total Credits	16		

		Co-Operat	ive S	cheme	
	Course Code	Course Title			Ca
의 일 요 두	ENGR4006				CF
<b>있</b> 힐엉ㅎ	ECCE5501		0		Al
<b>ပ</b> ြွှဲပြ	LOOLSSOT			LIVOIV4000	
	Course Code	Course Title	-	Pre-Peguisites/Co-Peguisite*	Ca
<b>의 팀</b> 은 각	ECCE5502				A
	LOOLSSOZ	Oo-Operative Training II		20020001	^
ပြက္ခြင္း		Total Credits	6	1	
			al Processi		
	ECCE4242	Introduction to Computer Networks	3		S
_, 약 _	E00E5000	D : ((D 1))			
100 102	ECCE5009	Project (Part I)			A
nes II 2	ECCE5123				S
ରା <b>ଛି</b> ନ୍ଦ	ECCE5124				S
	ECCE5143			ECCE4142 + ECCE4227	S
	ECCEFO04			CTAT2402	A
0 0	ECCE5004 ECCE5xxx ⁴				A
er-1	ECCE5099	Track Elective			S
este	ECCE2099			E00E3003	A L
Si ii ii					
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				Specialization	
	ECCE4416	Linear Control Systems and			A
ത	ECCE5009				A
	ECCE5009				S
<b>est 6 2 6 3 1 5 6 3 1</b>					S
Si e ii	ECCE5xxx ⁴			Offered course specific	U
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	ECCE5099				S
기운 경	ECCE5242 ECCE5232				S
g 26	ECCE5215				S
in me	ECCEDZIO	Applications	١	EGGE4242 	°
ର <b>ନ୍ଧ</b>			2		U
		Total Credits	14		
		Electronic Instrumentation	and Contr	ol Specialization	
	ECCE4142	Digital Signal Processing	3	ECCE3142	S
_ 우 _	ECCE5009	Project (Part I)	2	ECCEA010 and DD3	A
92 <b>te</b>	ECCE5xxx ⁴				S
nes la s	ECCE5452				S
ରା <b>୬</b> ନ	LOOLJ4JZ			ECOL4430 01 ECOL4433+ ECOL4221	
				<u> </u>	
	ECCE5099	Project (Part II)		ECCE5009	Α
0 0	ECCE5445	Control System Design		ECCE4416 or MCTE4250	S
r-1( 022	ECCE4436	Industrial Control Systems Design			S
ste g 2	ECCE5231				S
일 뿐 년		madelial retireme and operating eyeleme			
്. <b>ജ ഗ്</b>		University Elective ⁵	2		U
		Total Credits	### Strict Training II	· ·	
		Power Systems and	Energy Spe	ecialization	
	ECCE4416	Linear Control Systems			А
<b>□</b> 5 ←	ECCE5009	Project (Part I)	2		А
ste	ECCE5302	Power Systems Protection	3		S
al ;	ECCE5332	High Voltage Engineering	3	ECCE4312	S
യ <u>ജ</u>	ECCE5303	Power Distribution System Eng.	3		S
		Total Credits	14		
	ECCE5004	Engineering Management & Economics I	3		А
2 9	ECCE5099	Project (Part II)	3		A
	FCCFF4		3	Offered course specific	S
20 E	ECCE5xxx ⁴	HACK LIECTIVE		Chicken course opening	
nester ing 20	ECCE5XXX*	University Elective			i

⁵ Additional University Elective course, required for scheme-II only

### **Appendix A: UNIVERSITY REQUIREMNETS for Non-Arabic or Non-Oman Students**

No.	Cohorts 2017 and	Credits	Cohorts 2018 and	Credits	Notes
	before		after		
1	ARAB1001	3	ARAB1060	2	
2	SOCY1001	1	SOCY1005	2	For Omanis Only
3			SOCY1007	2	For Non Omanis
4		ARAB1019		3	For non-Arabic Speaking Students.
					Offered only in Fall semesters

#### Notes:

- For the courses (SOCY1005, SOCY1007, HIST1010), the course materials and exams are in English for non-Arabic speaking students.
- Currently, there is no Arabic course with 2 credits for the non-Arabic speaking students of cohorts 2018 and after. Those students have to register the ARAB1019 as shown in the table above.

#### List A: UNIVERSITY ELECTIVES (UE) - 6 Credits

Engineering students must register a humanity or social course (non-scientific & non-linguistic course) from any college as a University Elective. However, students are **NOT** allowed to register the following University Electives listed below:

No.	Course Code	Course Title	College
1	ENGL1523	English Writing Skills	College of Arts
2	ENGR1524	English Reading Skills	College of Arts
3	ENGL1525	English Speaking and Listing Skills	College of Arts
4	CHEM1100	Everyday Chemistry	College of Science
5	COMP1210	Web Site Development	College of Science
6	CROP2020	Lab and Safety	College of Agriculture and Marine Science
7	MNGT2500	Entrepreneurship Creat. and Invo.	College of Economics and Political Sciences
8	MNGT2501	Entrepreneurship	College of Economics and Political Sciences
9	ECON1050	Introduction to Economics	College of Economics and Political Sciences
10	CHPE1000	Renewable Energy	College of Engineering
11	ECCE1000	Electricity Generation from Solar PV	College of Engineering
12	MEIE1000	Solar Calculations and Energy	College of Engineering
13	MCTE1000	Edutainment Robotic	College of Engineering
14	ECCE2000	Introduction to Artificial Intelligence	College of Engineering

List	ist B: COLLEGE REQUIREMENTS (CR) – 32 Credits					
No.	Course Code	Course Title	Credits	Pre-Requisites		
1	LANC2160	English for Engineering I	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)		
2	LANC2161	English for Engineering II	3	LANC2160		
3	ENGR1501	Introduction to Engineering	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)		
4	ENGR1600	Workshop I	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)		
5	MATH2107	Calculus I	4	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and		
	WATEZIU/	Calculus I	4	FPMT (0105 or 0109)		
6	MATH2108	Calculus II	3	MATH 2107		
7	MATH3171	Linear Algebra & Multivariate Calculus	3	MATH2108, LANC2161		
8	MATH4174	Differential Equations for Engineers	3	MATH2108, LANC2161		
9	PHYS2107	Dhysics for Engineering I	4	MATH2107*, FPEL (0560 or 0600 or 0601 or 0602 or 0603 or		
	PH152101	Physics for Engineering I	4	0604) and FPMT (0105 or 0109)		
10	PHYS2108	Physics of Engineering II	4	PHYS 2107		
11	OUEM4074	Consul Chamistry for Engine spins	2	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and		
	CHEM1071	General Chemistry for Engineering	3	FPMT (0105 or 0109)		
12	ENGR3006	Industrial Training I	0	ENGR1600, MEIE3107		
13	ENGR4006	Industrial Training II	0	ENGR3006		

#### List C: COLLEGE ELECTIVES (CE) - 3 Credits No. Course Code **Course Title** Credits COMP2002 FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) Introduction to Computer Programming 3 and FPCS (0101 or 0102) for Engineers FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) 2 ENGR2217 Programming for Engineers 3 and FPCS (0101 or 0102)

List D: DEPARTMENTAL REQUIREMENT (DR) - 56 Credits

		712 TE GOTTE TETT (BTC)	0 "	D D 111
No.	Course	Course Title	College	Pre-Requisite
	Code			
1.	ECCE2016	Circuit Analysis I	3	MATH2107
2.	ECCE3016	Circuit Analysis II	3	PHYS 2108 + ECCE2016
3.	ECCE3022	Electromagnetics I	3	MATH3171 + PHYS2108
4.	ECCE3038	Electrical Measurements &	2	ECCE3016 + ECCE3152
		Instrumentation		
5.	ECCE3142	Signals & Systems	3	ECCE3016
6.	ECCE3152	Electronics I	3	ECCE2016
7.	ECCE3206	Digital Logic Design	3	
8.	ECCE3352	Electrical Technology	3	ECCE3016
9.	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217
10.	ECCE4010	Eng Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206
11.	ECCE4082	Professional Skills	1	LANC2161
12.	ECCE4122	Principles of Analog & Digital Comm	3	ECCE3142 + STAT2103
13.	ECCE4227	Embedded Systems	3	COMP2002 OR ENGR2217 + ECCE3206 +
		•		(ECCE3152 or MCTE3110)
14.	ECCE4158	Electronics II	3	ECCE3152
15.	ECCE4416	Linear Control Systems	3	ECCE3142
16.	ECCE5004	Eng Management & Economics I	3	STAT2103
17.	ECCE5009	Project (Part I)	2	ECCE4010 and PR ³
18.	ECCE5099	Project (Part II)	3	ECCE5009
19.	MATH4151	Discrete Math & Complex Analysis	3	MATH3171
20.	MATH4176	Numerical Analysis for Engineers	3	MATH3171 and MATH4174 and [COMP2002 or
		, ,		ENGR2217] (or equivalent)
21.	STAT2103	Probability for Engineers	3	MATH2107

# List H: SPECIALIZATION REQUIREMENT (SR) – 24 Credits Communications and Signal Processing Specialization

No.	Course	Course Title	College	Pre-Requisite
	Code			
1.	ECCE4022	Electromagnetics II	3	ECCE3022
2.	ECCE4142	Digital Signal Processing	3	ECCE3142
3.	ECCE4126	Principles Digital Communications	3	ECCE4122
4.	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501
				& also Incompatible with ECCE5231
5.	ECCE5112	Antennas & Wave Propagation	3	ECCE4022
6.	ECCE5123	Optical Communications	3	ECCE4122
7.	ECCE5124	Wireless Communications	3	ECCE4122
8.	ECCE5143	Advanced Digital Signal Processing	3	ECCE4142 + ECCE4227

Computer Systems and Networks Specialization

No.	Course Code	Course Title	College	Pre-Requisite
1.	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501
				& also Incompatible with ECCE5231
2.	ECCE4254	Operating Systems	3	COMP2002 OR ENGR2217
				& also Incompatible with ECCE5231
3.	ECCE4257	Applied Algorithms for ECE	3	COMP2002 OR ENGR2217+ECCE3258
4.	ECCE5214	Advanced Logic & Computer Interfacing	3	ECCE4227
5.	ECCE5215	Computing Sys. for Eng. Applications	3	ECCE4242
6.	ECCE5223	Adv. Embedded Systems Design	3	ECCE4227
7.	ECCE5232	Computer Architecture & Organ.	3	ECCE4227
8.	ECCE5242	Advanced Computer Networks	3	ECCE4242 or ECCE5231

Electronic Instrumentation and Control Specialization

No.	Course Code	Course Title	College	Pre-Requisite
1.	ECCE4142	Digital Signal Processing	3	ECCE3142
2.	ECCE4358	Electrical Machines	3	ECCE3352
3.	ECCE4436	Industrial Control Systems Design	3	ECCE4416
4.	ECCE4455	Sensors and Actuators	3	ECCE3036
5.	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or
				MCTE3210)
6.	ECCE5445	Control System Design	3	ECCE4416 or MCTE4250
7.	ECCE5452	Computer-Aided Instrumentation	3	ECCE4456 or 4455) + ECCE4227
8.	ECCE5231	Industrial Networks and Operating	3	ECCE4227 and COMP2002
		Systems		& also Incompatible with ECCE4242 and
				ECCE4254

Power Systems and Energy Specialization

No.	Course Code	Course Title	College	Pre-Requisite
1.	ECCE4022	Electromagnetics II	3	ECCE3022
2.	ECCE4312	Power System Analysis I	3	ECCE3352
3.	ECCE4316	Power System Analysis II	3	ECCE4312
4.	ECCE4358	Electrical Machines	3	ECCE3352
5.	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or
				MCTE3210)
6.	ECCE5302	Power Systems Protection	3	ECCE4316
7.	ECCE5303	Power Distribution System Eng.	3	ECCE4312
8.	ECCE5332	High Voltage Engineering	3	ECCE4312

## List I: SPECIALIZATION ELECTIVES (SE) – 9 Credits

Scheme I or II: Each Specialization needs three elective courses from the following combined list
 Co-Op Scheme: Co-Operative Training courses (ECCE5501 and ECCE5502) and one elective course.

No.	Course Code	Course Title	College	Pre-Requisite
1.	ECCE5501	Co-Operative Training-I	0	ENGR4006 (co-requisite)
2.	ECCE5502	Co-Operative Training-II	6	ECCE5501
3.	ECCE4022	Electromagnetics II	3	ECCE3022
4.	ECCE4124	Digital Communications	4	ECCE4122
5.	ECCE4126	Principles of Digital Communications	3	ECCE4122
6.	ECCE4142	Digital Signal Processing	3	ECCE3142
7.	ECCE4203	Advanced Logic Design	3	ECCE3206
8.	ECCE4213	Digital Electronics – Reliability and Testing	3	ECCE3152
9.	ECCE4232	Introduction to Distributed & Parallel Systems	3	ECCE4227
10.	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501
				& also Incompatible with ECCE5231
11.	ECCE4252	Data Structure & Algorithms	3	COMP2002 OR ENGR2217

40	F00F40F0	Louis to the IR seconds		COMPOSES OF ENOPSSAT
12.	ECCE4253	Object Oriented Programming	3	COMP2002 OR ENGR2217
13.	ECCE4254	Operating Systems	3	COMP2002 OR ENGR2217
1.1	F00F40F7	Applied Algorithms for ECE	2	& also Incompatible with ECCE5231
14.	ECCE4257	Applied Algorithms for ECE	3	COMPOSES OF ENOPOSES
15.	ECCE5265	Database Engineering and Applications	3	COMP2002 OR ENGR2217
16.	ECCE4272	Artificial Intelligence	3	50050400 50054400
17.	ECCE4282	Coding and Data Encryption	3	ECCE3122 or ECCE4122
18.	ECCE4312	Power System Analysis I	3	ECCE3352
19.	ECCE4316	Power System Analysis II	3	ECCE4312
20.	ECCE4358	Electrical Machines	3	ECCE3352
21.	ECCE4360	Renewable Energy Systems	3	ECCE3352
22.	ECCE4422	Digital Control Systems	3	ECCE4416
23.	ECCE4436	Industrial Control Systems Design	3	ECCE4416
24.	ECCE4455	Sensors and Actuators	3	ECCE3036
25.	ECCE4467	Power Electronics & Drives	3	[(ECCE3152 or MCTE3110) +
				(ECCE3352 or MCTE3210)]
26.	ECCE5005	Engineering Management & Economics II	3	ECCE5004
27.	ECCE5008	Project Management	3	ECCE5004
28.	ECCE5112	Antennas & Wave Propagation	3	ECCE4022
29.	ECCE5122	Communications Systems	3	ECCE4124 or ECCE4126
30.	ECCE5123	Optical Communications	3	ECCE4122
31.	ECCE5124	Wireless Communications	3	ECCE4122
32.	ECCE5132	Information Theory	3	ECCE4122
33.	ECCE5134	Selected Topics in Communications	3	ECCE4124 or ECCE4126
34.	ECCE5142	Image and Video Processing	3	ECCE4142
35.	ECCE5143	Advanced Digital Signal Processing	3	ECCE4142 + ECCE4227
36.	ECCE5160	Antenna Modeling and Measurement Techniques	3	ECCE4022
37.	ECCE5162	Microwave Engineering	3	ECCE4022
38.	ECCE5164	RF Comm. Circuits	3	ECCE4157 or ECCE4158
39.	ECCE5212	VLSI Design	3	ECCE4227
40.	ECCE5213	Fault-Tolerant Computing Systems	3	ECCE4227
41.	ECCE5214	Adv. Logic & Computer Interfacing	3	ECCE4227
42.	ECCE5215	Computing Systems for Eng. Applications	3	ECCE4242
43.	ECCE5222	Microprocessor Interfacing	3	ECCE4227
44.	ECCE5223	Adv. Embedded Systems Design	3	ECCE4227
45.	ECCE5224	Microprocessor Based Control Design	3	ECCE4227
46.	ECCE5231	Industrial Networks and Operating Systems	3	ECCE4227 and COMP2002
				& also Incompatible with ECCE4242 and
				ECCE4254
47.	ECCE5233	Computer Architecture and Organization II	3	ECCE5232
48.	ECCE5242	Advanced Computer Networks	3	ECCE4242
49.	ECCE5243	Network Software Design & Programming	3	ECCE4242
50.	ECCE5252	Software Engineering	3	ECCE4252 or ECCE4255
51.	ECCE5282	Computer Network Security	3	ECCE4242 or ECCE5231
52.	ECCE5283	Cryptography, Security & e-Commerce	3	ECCE4242
53.	ECCE5291	Funct. Verification of Hardware Designs	3	ECCE4227
54.	ECCE5292	Selected Topics in Computer Engineering	3	ECCE4227+ (ECCE4242 or ECCE5231)
55.	ECCE5302	Power Systems Protection	3	ECCE4316
56.	ECCE5303	Power Distribution System Eng.	3	ECCE4316
57.	ECCE5304	Power Stations	3	ECCE4312
58.	ECCE5312	Power System Control and Stability	3	ECCE4316
59.	ECCE5313	Electric Power Transmission System Eng.	3	ECCE4316
60.	ECCE5314	Selected Topics in Power	3	ECCE4312
61.	ECCE5315	Smart Grid	3	ECCE3352 + ECCE4122
62.	ECCE5322	Electrical Power Systems Quality	3	ECCE4312
63.	ECCE5323	Power System Operation	3	ECCE4316
64.	ECCE5324	Power System Reliability and Planning	3	ECCE4312
65.	ECCE5332	High Voltage Engineering	3	ECCE4022
		1 0		<u> </u>

66.	ECCE5333	Power System Economics	3	ECCE4312
67.	ECCE5342	Electrical Engineering Material	3	PHYS2108
68.	ECCE5352	Generalized Machine Theory	3	ECCE4358
69.	ECCE5412	Mechatronics	3	ECCE4416
70.	ECCE5422	Selected Topics in Control Systems	3	ECCE4416 or MCTE4250
71.	ECCE5432	Programmable Logic Control Systems	3	ECCE3206 + ECCE4416
72.	ECCE5433	Modern Control Systems	3	ECCE4416
73.	ECCE5445	Control System Design	3	ECCE4416 or MCTE4250
74.	ECCE5434	System Dynamics and Simulation	3	ECCE3142
75.	ECCE5452	Computer-Aided Instrumentation	3	(ECCE4456 or 4455) + ECCE4227
76.	ECCE5453	Mobile Robot Control	3	ECCE4416
77.	ECCE5443	Optimization Techniques in Engineering	3	MATH3171
78.	ECCE5462	Electric Drives	3	ECCE4466 or ECCE4467
79.	ECCE5464	Advanced Power Electronics	3	ECCE4466 or ECCE4467
80.	ECCE5006	Biomedical Signal Processing	3	ECCE3142
81.	ECCE5007	Biomedical Instrumentation Engineering	3	ECCE3142
82.	ECCE5002	Selected Topics in ECE	3	
83.	ECCE5001	Entrepreneurial Opportunities in Electrical and	3	
		Computer		

#### Note:

- Students are advised to regularly check the most updated degree plan on the department webpage. This degree plan is last updated on Tuesday, June 28, 2022
- Course description and exact prerequisite(s) can be checked on <a href="http://sisinfo.squ.edu.om/cgi-bin/crs-en/allsub.cgi">http://sisinfo.squ.edu.om/cgi-bin/crs-en/allsub.cgi</a>