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) **or** 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:		Date:	29th June 2022
Dean:		Date	29/6/2022
A&R:		Date:	

[1] *Not attached as no courses for ECE department*

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

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-I Sem-1 Fall 2016	-	General Foundation Program	-	-	UR
		Total Credits	**-**		
Scheme-I Semester-2 Spring 2017	HIST1010 or ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	2		UR
	CHEM1071	General Chemistry for Engineering	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109)	CR
	ENGR1501	Introduction to Engineering	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	ENGR1600	Workshop I	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	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**		
Scheme-I Semester-3 Fall 2017	ARAB1001	Arabic	3		UR
		University Elective	2		UE
	SOCY1001	Contemporary Omani Society	1		UR
	LANC2161	English for Engineering II	3	LANC2160	CR
	MATH2108	Calculus II	3	MATH2107	CR
	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**		
Scheme-I Semester-4 Spring 2018	ECCE2016	Circuit Analysis I	3	MATH2107	AR
	ECCE3206	Digital Logic Design	3		AR
	MATH3171	Linear Algebra & Multivariate Calculus for Engineers	3	MATH2108 + LANC2161	CR
	PHYS 2108	Physics for Engineering II	4	PHYS2107 OR PHYS2101	CR
	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**		
Scheme-I Semester-5 Fall 2018	ECCE3016	Circuit Analysis II	3	ECCE2016	AR
	ECCE3152	Electronics I	3	ECCE2016	AR
	ECCE3022	Electromagnetics I	3	PHYS2108 + MATH 3171	AR
	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
	MATH4174	Differential Equations for Engrs.	3	MATH2108 + LANC2161	CR
		Total Credits	**15**		
Scheme-I Semester-6 Spring 2019	ECCE3142	Signals & Systems	3	ECCE3016	AR
	ECCE3352	Electrical Technology	3	ECCE3016	AR
	MATH4176	Numerical Analysis for Engineers	3	MATH3171 and MATH4174 and [COMP2002 or ENGR2217]	AR
	ECCE4227	Embedded Systems	3	COMP2002 OR ENGR2217 + ECCE3206 + (ECCE3152 or MCTE3110)	AR
	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)
Communications and Signal Processing Specialization

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-I Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	ECCE4022	Electromagnetics II	3	ECCE3022	SR
	ECCE4158	Electronics II	3	ECCE3152	AR
		University Elective	2		UE
		Total Credits	**14**		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
		Total Credits	**0**		
Scheme-I Semester-8 Spring 2020	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	ECCE5112	Antennas & Wave Propagation	3	ECCE4022	SR
	ECCE4126	Principles of Digital Comm.	3	ECCE4122	SR
	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
		Total Credits	**15**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-I Semester-9 Fall 2020	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5123	Optical Communications	3	ECCE4122	SR
	ECCE5124	Wireless Communications	3	ECCE4122	SR
	ECCE5143	Advanced Digital Signal Proc.	3	ECCE4142 + ECCE4227	SR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
		Total Credits	**17**		
Scheme-I Semester-10 Spring 2021	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
		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)
Computer Systems and Network Specialization

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-I Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	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**		
Scheme-I Semester-8 Spring 2020	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
	ECCE4254	Operating Systems	3	COMP2002 OR ENGR2217 & also Incompatible with ECCE5231	SR
	ECCE4257	Applied Algorithms for ECE	3	COMP2002 OR ENGR2217+ECCE3258	SR
	ECCE5214	Advanced Logic & Computer Interfacing	3	ECCE4227	SR
		Total Credits	**15**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-I Semester-9 Fall 2020	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5223	Advanced Embedded Systems Design	3	ECCE4227	SR
		University Elective	2		UE
		Total Credits	**16**		
Scheme-I Semester-10 Spring 2021	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5242	Advanced Computer Networks	3	ECCE4242	SR
	ECCE5232	Computer Architecture and Organization	3	ECCE4227	SR
	ECCE5215	Computing Systems for Engineering Applications	3	ECCE4242	SR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		Total Credits	**15**		

Degree and Study Plan: 2016 Cohort (Scheme-I)

Electronic Instrumentation and Control Specialization

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-I Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	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**		
Scheme-I Semester-8 Spring 2020	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	ECCE4358	Electrical Machines	3	ECCE3352	SR
	ECCE4455	Sensors and Actuators	3	ECCE3036	SR
	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or MCTE3210)	SR
		Total Credits	**15**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-I Semester-9 Fall 2020	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5452	Computer-Aided Instrumentation	3	ECCE4456 or ECCE4455+ ECCE4227	SR
		University Elective	2		UE
		Total Credits	**16**		
Scheme-I Semester-10 Spring 2021	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5445	Control System Design	3	ECCE4416 or MCTE4250	SR
	ECCE4436	Industrial Control Systems Design	3	ECCE4416	SR
	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

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-I Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE4022	Electromagnetics II	3	ECCE3022	SR
	ECCE4312	Power System Analysis I	3	ECCE3352	SR
	ECCE4358	Electrical Machines	3	ECCE3352	SR
	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
		Total Credits	**0**		
Scheme-I Semester-8 Spring 2020	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	ECCE4316	Power System Analysis II	3	ECCE4312	SR
	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or MCTE3210)	SR
		University Elective	2		UE
		Total Credits	**14**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-I Semester-9 Fall 2020	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5302	Power Systems Protection	3	ECCE4316	SR
	ECCE5332	High Voltage Engineering	3	ECCE4312	SR
	ECCE5303	Power Distribution System Eng.	3	ECCE4312	SR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		Total Credits	**17**		
Scheme-I Semester-10 Spring 2021	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		University Elective	2		UE
		Total Credits	**14**		

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

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-II Sem-1 Fall 2016	-	General Foundation Program	-	-	UR
		Total Credits	**-**		
Scheme-II Sem-2 Spring 17	-	General Foundation Program	-	-	UR
		Total Credits	**-**		
Scheme-II Semester-3 Fall 2017	HIST1010 or ISLM1010	Oman & Islamic Civilization **or** Islamic Culture	2		UR
	CHEM1071	General Chemistry for Engineering	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT(0105 or 0109)	CR
	ENGR1501	Introduction to Engineering	1	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	LANC2160	English for Engineering I	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604)	CR
	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**		
Scheme-II Semester-4 Spring 2018	ARAB1001	Arabic	3		UR
	SOCY1001	Omani Contemporary Society	1		UR
	LANC2161	English for Engineering II	3	LANC2160	CR
	MATH2108	Calculus II	3	MATH2107	CR
	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**		
SU18	ECCE2016	Circuit Analysis I	3	MATH2107	AR
	ECCE3206	Digital Logic Design	3		AR
		Total Credits	**6**		
Scheme-II Semester-5 Fall 2018	ECCE3152	Electronics I	3	ECCE2016	AR
	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
	MATH3171	Linear Algebra & Multivariate Calculus for Engineers	3	MATH2108 + LANC2161	CR
	MATH4174	Differential Equations for Engrs.	3	MATH2108 + LANC2161	CR
	PHYS 2108	Physics for Engineering II	4	PHYS2107 OR PHYS2101	CR
		Total Credits	**16**		
Scheme-II Semester-6 Spring 2019	ECCE3016	Circuit Analysis II	3	ECCE2016	AR
	ECCE3022	Electromagnetics I	3	PHYS2108 + MATH 3171	AR
	ECCE4227	Embedded Systems	3	COMP2002 OR ENGR2217 + ECCE3206 + (ECCE3152 or MCTE3110)	AR
	MATH4176	Numerical Analysis for Engineers	3	MATH3171 and MATH4174 and [COMP2002 or ENGR2217]	AR
	STAT2103	Probability for Engineers	3	MATH2107	AR
		Total Credits	**15**		
SU19	ECCE3142	Signals & Systems	3	ECCE3016	AR
	ECCE3352	Electrical Technology	3	ECCE3016	AR
		Total Credits	**6**		

Degree and Study Plan: 2016 Cohort (Scheme-II)
Communications and Signal Processing Specialization

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-II Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	ECCE4022	Electromagnetics II	3	ECCE3022	SR
	ECCE4158	Electronics II	3	ECCE3152	AR
		Total Credits	**15**		
Jan 20	ENGR3006	Industrial Training I	-	ECCE3152	CR
		Total Credits	**0**		
Scheme-II Semester-8 Spring 2020	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	ECCE5112	Antennas & Wave Propagation	3	ECCE4022	SR
	ECCE4126	Principles of Digital Comm.	3	ECCE4122	SR
	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
	ECCE4416	Linear Control Systems	3	ECCE3142	AR
		Total Credits	**15**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-II Semester-9 Fall 2020	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5123	Optical Communications	3	ECCE4122	SR
	ECCE5124	Wireless Communications	3	ECCE4122	SR
	ECCE5143	Advanced Digital Signal Proc.	3	ECCE4142 + ECCE4227	SR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
		Total Credits	**17**		
Scheme-II Semester-10 Spring 2021	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
		University Elective	2		UE
		University Elective	2		UE
		Total Credits	**16**		

Degree and Study Plan: 2016 Cohort (Scheme-II)
Computer Systems and Network Specialization

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-II Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	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
		Total Credits	**0**		
Scheme-II Semester-8 Spring 2020	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
	ECCE4254	Operating Systems	3	COMP2002 OR ENGR2217 & also Incompatible with ECCE5231	SR
	ECCE4257	Applied Algorithms for ECE	3	COMP2002 OR ENGR2217+ECCE3258	SR
	ECCE5214	Advanced Logic & Computer Interfacing	3	ECCE4227	SR
		Total Credits	**15**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-II Semester-9 Fall 2020	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5223	Advanced Embedded Systems Design	3	ECCE4227	SR
		University Elective	2		UE
		Total Credits	**16**		
Scheme-II Semester-10 Spring 2021	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5242	Advanced Computer Networks	3	ECCE4242	SR
	ECCE5232	Computer Architecture and Organization	3	ECCE4227	SR
	ECCE5215	Computing Systems for Engineering Applications	3	ECCE4242	SR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		University Elective	2		UE
		Total Credits	**17**		

Degree and Study Plan: 2016 Cohort (Scheme-II)

Electronic Instrumentation and Control Specialization

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-II Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE3258	Applied Engineering Programming	1	COMP2002 OR ENGR2217	AR
	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	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
		Total Credits	**0**		
Scheme-II Semester-8 Spring 2020	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	ECCE4358	Electrical Machines	3	ECCE3352	SR
	ECCE4455	Sensors and Actuators	3	ECCE3036	SR
	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or MCTE3210)	SR
		Total Credits	**15**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-II Semester-9 Fall 2020	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5452	Computer-Aided Instrumentation	3	ECCE4456 or ECCE4455+ ECCE4227	SR
		University Elective	2		UE
		Total Credits	**16**		
Scheme-II Semester-10 Spring 2021	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5445	Control System Design	3	ECCE4416 or MCTE4250	SR
	ECCE4436	Industrial Control Systems Design	3	ECCE4416	SR
	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
		University Elective	2		UE
		Total Credits	**17**		

Degree and Study Plan: 2016 Cohort (Scheme-II)
Power Systems and Energy Specialization

	Course Code	Course Title	Cr.	Pre-Requisites	Cat.
Scheme-II Semester-7 Fall 2019	ECCE3038	Elect. Measurements & Instr.	2	ECCE3016+ECCE3152	AR
	ECCE4022	Electromagnetics II	3	ECCE3022	SR
	ECCE4312	Power System Analysis I	3	ECCE3352	SR
	ECCE4358	Electrical Machines	3	ECCE3352	SR
	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
		Total Credits	**0**		
Scheme-II Semester-8 Spring 2020	ECCE4010	Engineering Design and Professional Ethics	2	ECCE3142+ECCE3352+ECCE3152+ECCE3206	AR
	ECCE4082	Professional Skills	1	LANC2161	AR
	MATH4151	Discrete Math and Complex Analy.	3	MATH3171	AR
	ECCE4122	Principles of Analog & Digital Communication	3	ECCE3142+ STAT2103	AR
	ECCE4316	Power System Analysis II	3	ECCE4312	SR
	ECCE4467	Power Electronics & Drives	3	(ECCE3152 or MCTE3110)+ (ECCE3352 or MCTE3210)	SR
		Total Credits	**15**		
Summer 2020	ENGR4006	Industrial Training II	-	ENGR3006	CR
		Total Credits	**0**		
Scheme-II Semester-9 Fall 2020	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5302	Power Systems Protection	3	ECCE4316	SR
	ECCE5332	High Voltage Engineering	3	ECCE4312	SR
	ECCE5303	Power Distribution System Eng.	3	ECCE4312	SR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		Total Credits	**17**		
Scheme-II Semester-10 Spring 2021	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		University Elective	2		UE
		University Elective	2		UE
		Total Credits	**16**		

- The Co-Operative Training (Co-Op) Scheme is **optional**. **Scheme I or II** Students can enroll in this scheme after finishing semester-8.
- For enrollment terms, conditions, and registration procedure, please consult the Head of Department and the Assistant Dean for Training and Community Services Offices

Co-Operative Scheme

	Course Code	Course Title	Cr.	Pre-Requisites/Co-Requisite*	Cat.
Co-Op Scheme Co-Op Sem-1	ENGR4006	Industrial Training II	-	ENGR3006	CR
	ECCE5501	Co-Operative Training I	0	ENGR4006*	AE
		Total Credits	**0**		
Co-Op Scheme Co-Op Sem-2	**Course Code**	**Course Title**	**Cr.**	**Pre-Requisites/Co-Requisite***	**Cat.**
	ECCE5502	Co-Operative Training II	6	ECCE5501	AE
		Total Credits	**6**		

Communications and Signal Processing Specialization

Scheme-I **Semester-9 Fall 2021**	ECCE4242	Introduction to Computer Networks	3	ECCE4227 or COMP3518 or COMP3501 & also Incompatible with ECCE5231	SR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5123	Optical Communications	3	ECCE4122	SR
	ECCE5124	Wireless Communications	3	ECCE4122	SR
	ECCE5143	Advanced Digital Signal Proc.	3	ECCE4142 + ECCE4227	SR
		Total Credits	**14**		
Scheme-I **Semester-10 Spring 2022**	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5099	Project (Part II)	3	ECCE5009	AR
		University Elective	2		UE
		University Elective[5]	2		UE
		Total Credits	**13**		

Computer systems and Networks Specialization

Scheme-I **Semester-9 Fall 2021**	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5223	Advanced Embedded Systems Design	3	ECCE4227	SR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		University Elective	2		UE
		Total Credits	**13**		
Scheme-I **Semester-10 Spring 2022**	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5242	Advanced Computer Networks	3	ECCE4242	SR
	ECCE5232	Computer Architecture and Organization	3	ECCE4227	SR
	ECCE5215	Computing Systems for Engineering Applications	3	ECCE4242	SR
		University Elective[5]	2		UE
		Total Credits	**14**		

Electronic Instrumentation and Control Specialization

Scheme-I **Semester-9 Fall 2021**	ECCE4142	Digital Signal Processing	3	ECCE3142	SR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5xxx[4]	Track Elective	3	Offered course-specific	SE
	ECCE5452	Computer-Aided Instrumentation	3	ECCE4456 or ECCE4455+ ECCE4227	SR
		University Elective	2		UE
		Total Credits	**13**		
Scheme-I **Semester-10 Spring 2022**	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5445	Control System Design	3	ECCE4416 or MCTE4250	SR
	ECCE4436	Industrial Control Systems Design	3	ECCE4416	SR
	ECCE5231	Industrial Networks and Operating Systems	3	ECCE4227 and COMP2002 & also Incompatible with ECCE4242 and ECCE4254	SR
		University Elective[5]	2		UE
		Total Credits	**14**		

Power Systems and Energy Specialization

Scheme-I **Semester-9 Fall 2021**	ECCE4416	Linear Control Systems	3	ECCE3142	AR
	ECCE5009	Project (Part I)	2	ECCE4010 and PR[3]	AR
	ECCE5302	Power Systems Protection	3	ECCE4316	SR
	ECCE5332	High Voltage Engineering	3	ECCE4312	SR
	ECCE5303	Power Distribution System Eng.	3	ECCE4312	SR
		Total Credits	**14**		
Scheme-I **Semester-10 Spring 2022**	ECCE5004	Engineering Management & Economics I	3	STAT2103	AR
	ECCE5099	Project (Part II)	3	ECCE5009	AR
	ECCE5xxx[4]	Track Elective	3	Offered course specific	SE
		University Elective	2		UE
		University Elective[5]	2		UE
		Total Credits	**13**		

[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 before	Credits	Cohorts 2018 and after	Credits	Notes
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 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 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	Physics for Engineering I	4	MATH2107*, FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPMT (0105 or 0109)
10	PHYS2108	Physics of Engineering II	4	PHYS 2107
11	CHEM1071	General Chemistry for Engineering	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and 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	
1	COMP2002	Introduction to Computer Programming for Engineers	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPCS (0101 or 0102)
2	ENGR2217	Programming for Engineers	3	FPEL (0560 or 0600 or 0601 or 0602 or 0603 or 0604) and FPCS (0101 or 0102)

List D: DEPARTMENTAL REQUIREMENT (DR) – 56 Credits

No.	Course Code	Course Title	College	Pre-Requisite
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 & Instrumentation	2	ECCE3016 + ECCE3152
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 Code	Course Title	College	Pre-Requisite
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 Systems	3	ECCE4227 and COMP2002 & 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

12.	ECCE4253	Object Oriented Programming	3	COMP2002 OR ENGR2217
13.	ECCE4254	Operating Systems	3	COMP2002 OR ENGR2217 & also Incompatible with ECCE5231
14.	ECCE4257	Applied Algorithms for ECE	3	
15.	ECCE5265	Database Engineering and Applications	3	COMP2002 OR ENGR2217
16.	ECCE4272	Artificial Intelligence	3	
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

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 Computer	3	

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 http://sisinfo.squ.edu.om/cgi-bin/crs-en/allsub.cgi