

EUI - Communication Engineering Study Plan						
Year 1 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 011	English Language	3	2	2		
ENG 011	Transforming Ideas to Innovation I	2	1	2		
PHM 011	Analytic Geometry and Calculus I	4	3	2		
PHM 031	Modern Mechanics	4	3	2		
CSE 021	Introduction to Computer Programming	3	2	2		
		16				

Year 1 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 012	Fundamentals of Speech Communication	3	2	2		
ECE 101	Electrical Engineering Fundamentals I	3	2	2		PHM 111
PHM 012	Analytic Geometry and Calculus II	4	3	2		PHM 011
PHM 041	General Chemistry	4	3	2		
PHM 221	Electric and Magnetic Interactions	4	3	2		PHM 012, PHM 031
		17				

Year 2 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
PHM 112	Ordinary Differential Equations	3	2	2		PHM 012
ECE 101	Electrical Engineering Fundamentals I	3	2	2		PHM 031
ECE 102	Electrical Engineering Fundamentals I Lab	1	0	2		ECE 101
ECE 115	Digital Systems Design	4	2	4		
CSE 121	Advanced Programming	3	2	2		CSE 021
ECE 181	Electronics and Communications Engineering Sophomore Seminar	1	1	1		
		15				

Year 2 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 221	Communication, Information and Society	3	2	2		
PHM 113	Linear Algebra	3	2	2		PHM 012
PHM 123	[SI] Introduction to Optics	3	2	2		
ECE 103	Electrical Engineering Fundamentals II	3	2	2		PHM 112, ECE 101
ECE 104	Electrical Engineering Fundamentals II Lab	1	0	2		ECE 103
ECE 116	Electronic Circuits Analysis and Design	3	2	2		ECE 101
		16				

Year 3 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
PHM 111	Multivariate Calculus	4	3	2		PHM 012
PHM 212	Probability & Statistics	3	2	2		PHM 112
ECE 211	Semiconductor Devices	3	2	2		ECE 116
ECE 216	Electronic Circuits and Systems	3	2	2		ECE 116
ECE 212	Electronic Circuits and Systems Lab	1	0	2		ECE 216, ECE 102
ECE 231	Signals and Systems	3	2	2		ECE 101, PHM 112
		17				

Year 3 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
PHM 211	[SI] Numerical Computations	3	2	2		PHM 113
CSE 231	Microprocessor Systems and Interfacing	4	2	4		CSE 021, ECE 115
CSE 271	Data Science Methodology	3	2	2		CSE 021
ECE 241	Electromagnetics I	3	2	2		PHM 221
ECE 430	Transmission of Information	4	2	4		ECE 231
		17				

Year 4 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 211	Technical Writing	3	2	2		
PHM 311	[SI] Statistics for Data Science	3	2	2		PHM 212
CSE 351	Introduction to Artificial Intelligence	3	2	2		CSE 123
ECE 341	Electromagnetics II	3	2	2		ECE 241
ECE 342	Electromagnetic fields and waves Lab	1	0	2		ECE 341
ECE 421	[AI] Communication Systems	3	2	2		ECE 231
		16				

Year 4 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
ENG 231	[BI] Operations Research & Optimization	3	2	2		PHM 113
CSE 332	Computer Networks	3	2	2		CSE 123
ECE 344	Antenna Engineering and Design	3	2	2		ECE 241
ECE 351	Fiber Optics and Laser Lab	1	0	2		ECE 241
ECE 411	Digital Integrated Circuit Analysis and Design	3	2	2		ECE 115
ECE 461	Feedback Systems Analysis and Design	3	2	2		PHM 112, ECE 231
		16				

Year 5 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 311	Engineering Economics	3	2	2		
ECE 261	Professional Communications & Diversity	1	1	1		
ECE 422	[AI] Mobile Communication Systems	3	2	2		ECE 421
ECE 423	[AI] Satellite Communication Systems	3	2	2		ECE 421
	Advanced General Education I	3				
ECE 491	Senior-Design Project I	2	1	2		Passing 120 credit hours
		15				

Year 5 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 312	Ethics for Technology, Engineering and Design	3	2	2		
ECE 381	Professional Communication Capstone	1	1	1		
ECE 424	[AI] Computer Communication Networks	3	2	2		CSE 332
ECE 431	[AI] Advanced Digital Signal Processing Applications	3	2	2		ECE 231
	Advanced General Education II	3				
ECE 492	Senior-Design Project II	2	1	2		ECE 491
		15				

EUI - Electronics Engineering Study Plan						
Year 1 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 011	English Language	3	2	2		
ENG 011	Transforming Ideas to Innovation I	2	1	2		
PHM 011	Analytic Geometry and Calculus I	4	3	2		
PHM 031	Modern Mechanics	4	3	2		
CSE 021	Introduction to Computer Programming	3	2	2		
		16				

Year 1 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 012	Fundamentals of Speech Communication	3	2	2		
ECE 101	Electrical Engineering Fundamentals I	3	2	2		PHM 111
PHM 012	Analytic Geometry and Calculus II	4	3	2		PHM 011
PHM 041	General Chemistry	4	3	2		
PHM 221	Electric and Magnetic Interactions	4	3	2		PHM 012, PHM 031
		17				

Year 2 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
PHM 112	Ordinary Differential Equations	3	2	2		PHM 012
ECE 101	Electrical Engineering Fundamentals I	3	2	2		PHM 031
ECE 102	Electrical Engineering Fundamentals I Lab	1	0	2		ECE 101
ECE 115	Digital Systems Design	4	2	4		
CSE 121	Advanced Programming	3	2	2		CSE 021
ECE 181	Electronics and Communications Engineering Sophomore Seminar	1	1	1		
		15				

Year 2 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 221	Communication, Information and Society	3	2	2		
PHM 113	Linear Algebra	3	2	2		PHM 012
PHM 123	[SI] Introduction to Optics	3	2	2		
ECE 103	Electrical Engineering Fundamentals II	3	2	2		PHM 112, ECE 101
ECE 104	Electrical Engineering Fundamentals II Lab	1	0	2		ECE 103
ECE 116	Electronic Circuits Analysis and Design	3	2	2		ECE 101
		16				

Year 3 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
PHM 111	Multivariate Calculus	4	3	2		PHM 012
PHM 212	Probability & Statistics	3	2	2		PHM 112
ECE 211	Semiconductor Devices	3	2	2		ECE 116
ECE 216	Electronic Circuits and Systems	3	2	2		ECE 116
ECE 212	Electronic Circuits and Systems Lab	1	0	2		ECE 216, ECE 102
ECE 231	Signals and Systems	3	2	2		ECE 101, PHM 112
		17				

Year 3 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
PHM 211	[SI] Numerical Computations	3	2	2		PHM 113
CSE 231	Microprocessor Systems and Interfacing	4	2	4		CSE 021, ECE 115
CSE 271	Data Science Methodology	3	2	2		CSE 021
ECE 241	Electromagnetics I	3	2	2		PHM 221
ECE 430	Transmission of Information	4	2	4		ECE 231
		17				

Year 4 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 211	Technical Writing	3	2	2		
PHM 311	[SI] Statistics for Data Science	3	2	2		PHM 212
CSE 351	Introduction to Artificial Intelligence	3	2	2		CSE 123
ECE 341	Electromagnetics II	3	2	2		ECE 241
ECE 342	Electromagnetic fields and waves Lab	1	0	2		ECE 341
ECE 313	[AI] Introduction to Nanotechnology	3	2	2		ECE 211
		16				

Year 4 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
ENG 231	[BI] Operations Research & Optimization	3	2	2		PHM 113
CSE 332	Computer Networks	3	2	2		CSE 123
ECE 344	Antenna Engineering and Design	3	2	2		ECE 241
ECE 351	Fiber Optics and Laser Lab	1	0	2		ECE 241
ECE 411	Digital Integrated Circuit Analysis and Design	3	2	2		ECE 115
ECE 461	Feedback Systems Analysis and Design	3	2	2		PHM 112, ECE 231
		16				

Year 5 - Semester 1						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 311	Engineering Economics	3	2	2		
ECE 261	Professional Communications & Diversity	1	1	1		
ECE 412	[AI] Electromechanical Motion Devices	3	2	2		ECE 211
ECE 414	[AI] Analog Integrated Circuit Design	3	2	2		ECE 216
	Advanced General Education I	3				
ECE 491	Senior-Design Project I	2	1	2		Passing 120 credit hours
		15				

Year 5 - Semester 2						
Course Code	Course Name	Credits	Hours			Requisites
			Lect.	Ex./Lab	Co	
HUM 312	Ethics for Technology, Engineering and Design	3	2	2		
ECE 381	Professional Communication Capstone	1	1	1		
ECE 413	[AI] Fundamentals of Nanoelectronics	3	2	2		ECE 211
ECE 415	[AI] Mixed-signal Integrated Circuit Design	3	2	2		ECE 414
	Advanced General Education II	3				
ECE 492	Senior-Design Project II	2	1	2		ECE 491
		15				