

Academic structure for the BEng (Honours) in Electronic & Computer Engineering (CAO Code = DC190)

Common Engineering First Year

Code	Title	Credit	Semester	Exam %	CA %
EM105	Fundamentals of Professional Development	5	Semester 2	30	70
EM106	Project & Technical Drawing	10	Year long	0	100
EM108	Software Development for Engineers	5	Semester 2	50	50
EM112	Statics and Dynamics	5	Semester 2	70	30
EM113	Introduction to Electronics	5	Semester 1	50	50
EM114	Numerical Problem Solving for Engineers	5	Semester 2	0	100
EM115	Materials Engineering	5	Semester 1	70	30
EM121	Engineering Mathematics I	5	Semester 1	70	30
EM122	Engineering Mathematics II	5	Semester 2	70	30
FSH104	Basic Sciences for Engineering	10	Semester 1	50	50

Year 2 ECE Programme Structure

Code	Title	Credit	Semester	Exam %	CA %
EE203	Circuits	5	Semester 1	80	20
EE224	Data Communications & Networks I	5	Semester 1	100	0
EE219	Object Oriented Programming I	5	Semester 1	75	25
EE223	Digital and Analogue Electronics I	5	Semester 1	70	30
EF318	New Enterprise Development Project	5	Semester 1	0	100
EM201	Engineering Mathematics III	5	Semester 1	70	30
EE201	Digital and Analogue Electronics II	5	Semester 2	75	25
EE202	Embedded Systems	5	Semester 2	75	25
EE206	Operating Systems	5	Semester 2	85	15
EE207	Systems	5	Semester 2	80	20
EM202	Engineering Mathematics IV	5	Semester 2	70	30
PS202	Electromagnetism	5	Semester 2	60	40

Year 3 ECE Programme Structure

Code	Title	Credit	Semester	Exam %	CA %
CA213	Data Structures and Algorithms	5	Semester 1	80	20
EE314	Signals	10	Semester 1	80	20
EE319	Electromechanical Systems	5	Semester 1	70	30
EE323	Electromagnetics (Time-varying fields)	5	Semester 1	80	20
EE317	Mathematics V (Computation & Simulation)	5	Semester 1	40	60
EE321	Data Communications & Networks II	5	Semester 2	75	25
EE322	Analogue Circuits & Design	5	Semester 2	75	25
EE303	Mobile Robotics	5	Semester 2	0	100
EE318	Engineering Intra	15	Semester 2	0	100

Year 4 ECE Core Modules

Code	Title	Credit	Semester	Exam %	CA %
EE496	Computer Architecture & HDL	5	Semester 1	70	30
EE402	Object Oriented Programming with Embedded Systems	7.5	Semester 1	75	25
EE458	Control Systems Analysis	5	Semester 1	85	15
EE401	DSP-Digital Filters & DFT	5	Semester 1	80	20

Year 4 ECE with Major in Systems & Devices

Code	Title	Credit	Semester	Exam %	CA %
EE454	Optical Communications System Design	7.5	Semester 2	80	20
EE403	Semiconductor Devices & Solid State Electronics	7.5	Semester 1	80	20
EE459	Mechatronic System Simulation & Control	7.5	Semester 2	70	30
EE467	Capstone Project (Major in Systems & Devices)	15	Year long	0	100

Year 4 ECE with Major in the Internet of Things

Code	Title	Credit	Semester	Exam %	CA %
EE459	Mechatronic System Simulation & Control	7.5	Semester 2	70	30
EE417	Web Application Development	7.5	Semester 2	75	25
EE452	Wireless/Mobile Communications	7.5	Semester 1	75	25
EE464	Capstone Project (Major in the Internet of Things)	15	Year long	0	100

Year 4 ECE with Major in High-Speed Communications

Code	Title	Credit	Semester	Exam %	CA %
EE454	Optical Communications System Design	7.5	Semester 2	80	20
EE450	Communications Theory	7.5	Semester 1	80	20
EE495	Transmission Lines, RF Propagation & Radio Link Design	7.5	Semester 2	70	30
EE465	Capstone Project (Major in High-Speed Communications)	15	Year long	0	100

Year 4 ECE with Major in Digital Interaction

Code	Title	Credit	Semester	Exam %	CA %
EE417	Web Application Development	7.5	Semester 2	75	25
EE497	Human Computer Interface Technologies	7.5	Semester 2	50	50
EE453	Image Processing & Analysis with Project	7.5	Semester 1	50	50
EE466	Capstone Project (Major in Digital Interaction)	15	Year long	0	100