

Year Term	Term wise Subjects Organization of ECE Department, KUET, Khulna. (Effective from the Academic Session: 2021-2022)								Total Contact Hrs & Credit	Remarks
1 <sup>ST</sup> Year 1 <sup>ST</sup> Term		ECE 1109-ECE 1110 <i>Introduction to Electronics and Communication Engineering</i> 3-3 hrs/wk 3-1.5 Cr.		Ph 1109-Ph 1110 <i>Physics</i> 3-3 hrs/wk 3-1.5 Cr.		Math 1109 <i>Differential and Integral Calculus</i> 3 hrs/wk 3 Cr.	EEE 1109-EEE 1110 <i>Basic Electrical Engineering</i> 3-3 hrs/wk 3-1.5 Cr.	Hum 1109 <i>Technical English</i> 3 hrs/wk 3 Cr.	Hrs/wk=15+9=24 Cr. =15+4.5=19.5	G. Edu. & Humanities 3+0 Math and Science 6+1.5 Core Subject 3+1.5 Elective Subject 0+0 Allied Subject 3+1.5
1 <sup>ST</sup> Year 2 <sup>ND</sup> Term		ECE 1209-ECE 1210 <i>Analog Electronics –I</i> 3-3 hrs/wk 3-1.5 Cr.	CSE 1209-CSE 1210 <i>Computer Fundamentals and Programming</i> 3-3 hrs/wk 3-1.5 Cr.	Ch 1209-Ch 1210 <i>Chemistry</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 1205 <i>Science of Engineering Materials</i> 3 hrs/wk 3 Cr.	Math 1209 <i>Coordinate Geometry and Differential Equations</i> 3 hrs/wk 3 Cr.		Hum 1210 <i>Technical English Laboratory</i> 3/2 hrs/wk 0.75 Cr.	Hrs/wk=15+9=24 Cr.=15+4.5=19.5	G. Edu. & Humanities 3+2.25 Math and Science 9+0.75 Core Subject 3+1.5 Elective Subject 0+0 Allied Subject 0+0
2 <sup>ND</sup> Year 1 <sup>ST</sup> Term	CSE 2100 <i>Object Oriented Programming Laboratory</i> 3/2 hrs/wk 0.75 Cr.	ECE 2101-ECE 2102 <i>Analog Electronics - II</i> 3-3 hrs/wk 3-0.75 Cr.	ECE 2103-ECE 2104 <i>Digital Electronics and Logic Circuits</i> 3-3 hrs/wk 3-1.5 Cr.	ECE 2105 <i>Electromagnetic Fields and Waves</i> 3 hrs/wk 3 Cr.	ECE 2107-ECE2108 <i>Signals and Systems</i> 3-3/2 hrs/wk 3-0.75 Cr.	Math 2109 <i>Vector, Matrix and Transform</i> 3 hrs/wk 3 Cr.	ME 2110 <i>Engineering Drawing</i> 3/2 hrs/wk 0.75 Cr.		Hrs/wk=15+9=24 Cr. =15+4.5=19.5	G. Edu. & Humanities 0+0 Math and Science 6+0.75 Core Subject 9+3.00 Elective Subject 0+0 Allied Subject 0+0.75
2 <sup>ND</sup> Year 2 <sup>ND</sup> Term	ECE 2200 <i>Electronic Circuits Design Laboratory</i> 3/2 hrs/wk 0.75 Cr.	ECE 2201-ECE 2202 <i>Analog Communications</i> 3-3 hrs/wk 3-1.5 Cr.		ECE 2203-ECE 2204 <i>Microprocessors and Microcomputers</i> 3-3/2 hrs/wk 3-0.75 Cr.	CSE 2209-CSE2210 <i>Data Structures and Algorithm</i> 3-3 hrs/wk 3-1.5 Cr.	Math 2209 <i>Complex Variables, Statistics and Special Functions</i> 3 hrs/wk 3 Cr.	EEE 2209-EEE 2210 <i>Electrical Drives and Instrumentation</i> 3-3/2 hrs/wk 3-0.75 Cr		Hrs/wk=15+10.5=25.5 Cr. =15+5.25=20.25	G. Edu. & Humanities 0+0 Math and Science 3+0 Core Subject 6+3.00 Elective Subject 0+0 Allied Subject 6+2.25
3 <sup>RD</sup> Year 1 <sup>ST</sup> Term	CSE 3100 <i>Web Programming Laboratory</i> 3 hrs/wk 1.5 Cr.	ECE 3101-ECE 3102 <i>Industrial Electronics</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 3103-ECE 3104 <i>Digital Communications</i> 3-3 hrs/wk 3-1.5 Cr.	ECE 3105-ECE 3106 <i>Microwave Engineering and Radar</i> 3-3/2 hrs/wk 3-.75 Cr.		ECE 3109-ECE 3110 <i>Numerical Analysis</i> 3-3/2 hrs/wk 3-0.75 Cr.		Hum 3109 <i>Economics and Accounting</i> 3 hrs/wk 3 Cr	Hrs/wk=15+10.5=25.5 Cr.=15+5.25=20.25	G. Edu. & Humanities 3+1.5 Math and Science 3+0.75 Core Subject 9+3.00 Elective Subject 0+0 Allied Subject 0+0
3 <sup>RD</sup> Year 2 <sup>ND</sup> Term	ECE 3200 <i>Electronics Project Design/Development</i> 3 hrs/wk 1.5 Cr.	ECE 3201 <i>Information Theory</i> 3 hrs/wk 3 Cr.	ECE 3203-ECE 3204 <i>Digital Signal Processing</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 3205-ECE 3206 <i>Optical Fiber Communications</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 3207-ECE 3208 <i>Antenna Engineering</i> 3-3 hrs/wk 3-0.75 Cr.	ECE 3210 <i>Modeling and Simulation Laboratory</i> 3/2 hrs/wk 0.75 Cr.	Optional-I <i>(only one course from this group)</i> 3-3/2 hrs/wk 3-0.75 Cr.		Hrs/wk=15+10.5=25.5 Cr. =15+5.25=20.25	G. Edu. & Humanities 0+0 Math and Science 0+0 Core Subject 12+4.5 Elective Subject 3+0.75 Allied Subject 0+0
4 <sup>TH</sup> Year 1 <sup>ST</sup> Term	ECE 4000 <i>Capstone Project/Thesis</i> 3 hrs/wk 1.5 Cr.	ECE 4101-ECE 4102 <i>VLSI Design and Technology</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 4103-ECE 4104 <i>Wireless and Cellular Communications</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 4105 <i>Engineers and Society</i> 3 hrs/wk 3 Cr.	ECE 4107-ECE4108 <i>Machine Learning</i> 3-3/2 hrs/wk 3-0.75 Cr	Optional-II <i>(only one course from this group)</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 4150 <i>Technical Writing and Presentation</i> 3/2 hrs/wk 0.75 Cr.	ECE 4100 <i>Industrial Attachment (Non-Credit)</i>	Hrs/wk=15+10.5=25.5 Cr. =15+5.25=20.25	G. Edu. & Humanities 3+0.75 Math and Science 0+0 Core Subject 9+3.75 Elective Subject 3+0.75 Allied Subject 0+0
4 <sup>TH</sup> Year 2 <sup>ND</sup> Term	ECE 4000 <i>Capstone Project/Thesis</i> 6 hrs/wk 3.0 Cr.	ECE 4203 –ECE 4204 <i>Satellite and Telecommunication Engineering</i> 3-3/2 hrs/wk 3-0.75 Cr.	ECE 4205-ECE 4206 <i>Computer Networks</i> 3-3 hrs/wk 3-1.5 Cr	Optional- III <i>(only one course from this group)</i> 3 hrs/wk 3 Cr.	Optional –IV <i>(only one course from this group)</i> 3-3/2 hrs/wk 3-0.75 Cr.			Hum 4209 <i>Project Management and Entrepreneurship</i> 3 hrs/wk 3 Cr.	Hrs/wk=15+12=27 Cr. = 15+6=21	G. Edu. & Humanities 3+0 Math and Science 0+0 Core Subject 6+5.25 Elective Subject 6+0.75 Allied Subject 0+0
1. Theory courses per Term = 05 2. Total optional course = 04 3. Total optional credit = 14.25 4. Contact Hours per Term = 24– 27 5. Credit per Term = 19.5– 21 6. Total Credit = 160.5 <b>Percentage of courses:</b> G. Edu. & Humanities 12.15% Math and Science 19.16% Core Subject 51.40% Elective Subject 8.88% Allied Subject 8.41% Engineering Subject: Cr.= 110.25 = 68.69% Non Engg. Subject: Cr.= 50.25 = 31.31% <b>Contact Hours</b> Theory : 120 Laboratory : 81 <b>Credit</b> Theory : 120 Laboratory : 40.5 <b>Total Credit =</b> Core course + Optional course = 146.25 + 14.25 = 160.5									Total Hrs=120+81=201 Total Credit=120+40.5=160.5	

**Optional-I:** CSE 3209 Database System, CSE 3210 Database System Lab, CSE 3219 Computer Peripherals and Interfacing, CSE 3220 Computer Peripherals and Interfacing Lab, CSE 3239 Mobile Computing, CSE 3240 Mobile Computing Lab.

**Optional-II:** ECE 4139 TV Engineering, ECE 4140 TV Engineering Lab, ECE 4129 Digital Image Processing, ECE 4130 Digital Image Processing Lab, ECE 4117 Internet of Things, ECE 4118 Internet of Things Lab.

**Optional-III:** ECE 4209 Opto-Electronics Integrated Circuits, ECE 4229 Electronic Packaging and Materials, ECE 4259 Wireless Sensor Networks, ECE 4237 Power Supply System in Telecommunications, ECE 4221 Semiconductor Devices Theory, ECE 4223 Semiconductor Processing and Fabrication Technology, ECE 4215 Robotics and Machine Vision.

**Optional-IV:** ECE 4207 Control System Eng, ECE 4208 Control System Eng Lab, ECE 4217 Electronic Instrumentation, ECE 4218 Electronic Instrumentation Lab, ECE 4227 Biomedical Engineering, ECE 4228 Biomedical Engineering Lab, ECE 4269 Embedded Systems, ECE 4270 Embedded Systems Lab.