# Covenant University

**B.Eng. Degree Programme in**

# Information and Communication Engineering

# Mapping of Curriculum with Programme Outcomes (POs)

# Mapping of Curriculum with POs

| LEVEL | SEMESTER | COURSE CODE | COURSE TITLE | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 1st | MAT111 | Algebra | Y | Y | Y | Y | | | | | | | Y | |
| | | MAT112 | Trigonometry and Geometry | Y | Y | Y | | | | | | | | | |
| | | PHY111 | Mechanics and Properties of Matter | Y | Y | Y | | | | | | | | | |
| | | PHY112 | Heat, Sound and Optics | Y | Y | Y | | | | | | | | | |
| | | PHY119 | Physics Practical I | Y | Y | | Y | | | | Y | | | | |
| | | GEC117 | Technical Drawing | Y | | Y | | | | | | | | | |
| | | CHM111 | General Physical Chemistry | Y | Y | | Y | | | Y | | | | | |
| | | CHM119 | General Chemistry | Y | Y | | Y | | | Y | | | | | |
| | | EDS111 | Entrepreneurial Development Studies I | Y | | | | | | | Y | | | Y | Y |
| | | TMC111 | Total Man Concept I | Y | | | | | | | Y | | | Y | Y |
| | | TMC112 | Total Man Concept - Sports I | Y | | | | | | | Y | | | Y | Y |
| | | CST111 | Computer Applications and Library Studies I | Y | Y | Y | Y | Y | Y | | | | | | |
| | | GST111 | Communication in English I | Y | Y | | Y | | Y | | Y | Y | Y | | Y |
| | 2nd | MAT121 | Calculus | Y | Y | Y | | | | | | | | | |
| | | MAT122 | Vector Algebra | Y | Y | Y | | | | | | | | | |
| | | PHY121 | Electricity and Magnetism | Y | | Y | | | | | | | | | |
| | | PHY122 | Atomic and Nuclear Physics | Y | Y | Y | Y | | | Y | | | | | |
| | | PHY129 | Physics Practical II | Y | Y | | Y | | | | Y | | | | |
| | | CHM123 | General Organic Chemistry | Y | Y | | Y | | | Y | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | CHM122 | General Inorganic Chemistry | Y | Y | | Y | | | Y | | | | | |
| | | CHM129 | General Chemistry Practical II | Y | Y | | Y | | | Y | | | | | |
| | | EDS121 | Entrepreneurial Development Studies II | Y | | | | | | | Y | | | Y | Y |
| | | TMC121 | Total Man Concept II | Y | | | | | | | Y | | | Y | Y |
| | | TMC122 | Total Man Concept - Sports II | Y | | | | | | | Y | | | Y | Y |
| | | CST121 | Computer Applications and Library Studies II | Y | Y | Y | Y | | | | | | | | |
| | | GST121 | Communication in English II | Y | Y | | Y | | Y | | Y | Y | Y | | Y |
| | | GST122 | Communication in French | | | | | | | | | | | | Y |
| 200 | 3rd | GEC210 | Engineering Mathematics I | Y | Y | Y | Y | Y | | | | | | | |
| | | GEC211 | Fundamentals of Electrical Engineering I | Y | Y | Y | | | | | | | | | |
| | | GEC212 | Engineering Graphics | Y | Y | Y | Y | | | | | | | | |
| | | GEC213 | Material Science and Engineering | Y | Y | Y | Y | | | | | | | | |
| | | GEC214 | Applied Mechanics | Y | Y | Y | Y | | | | | | | | |
| | | GEC215 | Applied Computer Programming I | Y | Y | Y | Y | Y | Y | | | | | | |
| | | GEC216 | General Engineering Laboratory I | | | Y | Y | | | | | Y | Y | | |
| | | GEC217 | Engineer-In- Society | Y | Y | | | | Y | Y | Y | Y | | | |
| | | GEC218 | Workshop Technology | | | Y | Y | | | | | Y | Y | | |
| | | GEC219 | Applied Mechanics Practical | Y | Y | | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | EDS211 | Entrepreneurial Development Studies III | Y | | | | | | | Y | | | Y | Y |
| | | TMC211 | Total Man Concept III | Y | | | | | | | Y | | | Y | Y |
| | | TMC212 | Total Man Concept - Sports III | Y | | | | | | | Y | | | Y | Y |
| | | GST211 | Logic, Philosophy and Human Existence | | | | | | Y | | Y | | | | Y |
| | 4th | GEC220 | Engineering Mathematics II | Y | Y | Y | Y | Y | | | | | | | |
| | | GEC221 | Thermodynamics | Y | | | | | | | | | | | |
| | | GEC222 | Computer Aided Design & Manufacture | Y | Y | Y | Y | Y | Y | | | | | | |
| | | GEC223 | Fluid Mechanics | Y | Y | Y | Y | | | | | | | | |
| | | GEC224 | Strength of Materials | Y | Y | Y | Y | | | | | | | | |
| | | GEC225 | Applied Computer Programming II | Y | Y | Y | Y | Y | | | | | | | |
| | | GEC226 | General Engineering Laboratory II | | | Y | Y | | | | | Y | Y | | |
| | | GEC228 | Fundamentals of Electrical Engineering II | Y | Y | Y | | | | | | | | | |
| | | GEC229 | Student Workshop Experience Program (SWEP) | Y | Y | | | | Y | | | | | | |
| | | EDS221 | Entrepreneurial Development Studies III | Y | | | | | | | Y | | | Y | Y |
| | | TMC221 | Total Man Concept III | Y | | | | | | | Y | | | Y | Y |
| | | TMC222 | Total Man Concept - Sports III | Y | | | | | | | Y | | | Y | Y |
| | | GST221 | Logic, Philosophy and Human Existence | | | | | | | | | | Y | | Y |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | GST222 | Peace Studies and Conflict Resolution | | | | | | | | | | Y | | Y |
| 300 | 5th | GEC310 | Engineering Mathematics III | Y | Y | Y | Y | Y | | | | | | | |
| | | EIE311 | Electromagnetic Fields & Waves | Y | Y | Y | | | | | | | | | |
| | | EIE312 | Communication Principles | Y | Y | Y | | | | | | | | | |
| | | EIE313 | Physical Electronics | Y | Y | Y | | | | | | | | | |
| | | EIE314 | Electric Circuit Theory I | Y | Y | Y | | | | | | | | | |
| | | EIE315 | Electrical Machines | Y | Y | Y | | | | | | | | | |
| | | EIE318 | Laboratory Practical I | | | | Y | | | | | Y | Y | | Y |
| | | EIE317 | Electric Machine Practical | | | Y | Y | | | | | Y | Y | | Y |
| | | EDS311 | Entrepreneurial Development Studies V | Y | | | | | | | Y | | | Y | Y |
| | | TMC311 | Total Man Concept V | Y | | | | | | | Y | | | Y | Y |
| | | TMC312 | Total Man Concept – Sports V | Y | | | | | | | Y | | | Y | Y |
| | | GST311 | History and Philosophy Science | | | | | | | | | | Y | | Y |
| | 6th | GEC320 | Numerical Methods | Y | Y | Y | Y | | | | | | | | |
| | | GEC324 | Technical/Engineering Communication | Y | Y | | | | | Y | | Y | | Y | | Y |
| | | GEC321 | Engineering Economics | Y | Y | Y | | | | Y | | Y | | | Y | |
| | | GEC329 | **SIWES 2 (see 400level Omega) | Y | Y | Y | Y | Y | | | | | | | |
| | | EIE321 | Electric Power Principles | Y | | | | | | | | | | | |
| | | EIE322 | Signals and Systems | Y | Y | | Y | Y | | | | | | | |
| | | EIE323 | Analogue Electronics | Y | Y | Y | | | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | EIE326 | Software Development Techniques | Y | Y | Y | | Y | | | | | | | |
| | | EIE327 | Digital Electronics | Y | Y | Y | | Y | | | | | | | Y |
| | | EIE328 | Laboratory Practical II | | | Y | Y | | | | | Y | Y | | Y |
| | | EIE329 | Cyberpreneurship and Cyberlaw | Y | | Y | Y | Y | | | Y | Y | | | |
| | | EDS321 | Entrepreneurial Development Studies VI | Y | | | | | | | Y | | | Y | Y |
| | | TMC321 | Total Man Concept VI | Y | | | | | | | Y | | | Y | Y |
| | | TMC322 | Total Man Concept – Sports VI | Y | | | | | | | Y | | | Y | Y |
| 400 | 7th | GEC410 | Engineering Statistics | Y | Y | Y | | | Y | | Y | | | Y | |
| | | EIE411 | Computer Organization and Architecture | | Y | Y | Y | | | | | Y | | Y | |
| | | EIE412 | Control Engineering and Linear Systems | Y | Y | | Y | | | | | | | | |
| | | EIE413 (ICE413) | Communication Laboratory Practical and Mini Project | Y | Y | Y | | | | | | Y | | | Y |
| | | EIE316 | Measurements and Instrumentation | Y | | | | Y | | | | | | | |
| | | ICE415 | Antenna and Propagation | Y | Y | | Y | Y | | | | | | | |
| | | ICE438 | Internet Technology and Programming | Y | | Y | | | | | | | | | |
| | | ICE417 | Operations Research | Y | Y | Y | Y | | | | | | | | |
| | | EIE418 | Data Communication & Computer Networks I | Y | Y | Y | | | | | | | | | |
| | | EIE414 | Design and Installation of | Y | Y | Y | | | | | | Y | | | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Electrical and ICT Services | | | | | | | | | | | | |
| | | EDS411 | Entrepreneurial Development Studies VII | Y | | | | | | | Y | | | Y | Y |
| | | TMC411 | Total Man Concept VII | Y | | | | | | | Y | | | Y | Y |
| | | TMC412 | Total Man Concept – Sports VII | Y | | | | | | | Y | | | Y | Y |
| | | GEC427 | SIWES I (SWEP) | | | | | Y | Y | Y | | Y | Y | Y | Y |
| | 8th | GEC428 | SIWES II | | | | | Y | Y | Y | | Y | Y | Y | Y |
| | | GEC429 | SIWES III (IT) | | | | | Y | Y | Y | | Y | Y | Y | Y |
| 500 | 9th | GEC517 | Engineering Law | Y | | | | | Y | | Y | Y | Y | Y | Y |
| | | EIE510 | Research Methodology | Y | Y | Y | Y | Y | | | Y | | | Y | |
| | | EIE512 | Reliability and Maintainability | Y | Y | Y | Y | | Y | | Y | | | | Y |
| | | ICE513 | Information Theory and Coding | Y | Y | Y | | | | | | | | | |
| | | ICE514 | Telecommunication Engineering and System Planning | Y | Y | Y | Y | | | Y | Y | | | | |
| | | ICE515 | Communication Engineering Practical | Y | Y | Y | | | | | | Y | | | |
| | | ICE516 | Artificial Intelligence and Applications | Y | | Y | Y | | | | | | | | |
| | | ICE517 | Digital Signal Processing | Y | Y | Y | | | | | | | | | |
| | | ICE518 | Computational Mathematics and Queuing Theory | Y | Y | Y | | Y | | | | | | | |
| | | EDS511 | Cost Engineering | Y | Y | Y | | Y | Y | Y | Y | | | Y | |
| | | TMC511 | Total Man Concept IX | Y | | | | | | | Y | | | Y | Y |

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| | | TMC512 | Total Man Concept– Sports IX | Y | | | | | | | Y | | | Y | Y |
| | | GEC527 | Engineering Management | Y | Y | Y | | | Y | | Y | | | Y | |
| | | ICE524 | Microwave Engineering | Y | | Y | | Y | | | | | | | |
| | | EIE526 | Digital Image Processing | Y | Y | | Y | Y | | | | | | | |
| | | ICE526 | Mobile and Satellite Communication | Y | Y | Y | | Y | | | | | | | |
| | | ICE527 | Optical Communication | Y | Y | | Y | | | | | | | | |
| | | GEC529 | Final Year Project | Y | Y | Y | Y | | Y | | Y | | | Y | Y |
| | 10th | ICE528 | Computer Graphics and Animations | Y | Y | | | Y | | | | | | | |
| | | ICE529 | Computer hardware system Design | Y | | Y | | | | | | | | | |
| | | ICE540 | Power Electronics and Design | Y | Y | Y | | Y | | | | Y | | | |
| | | EIE521 | Electromagnetic Interference (EMI) | Y | | Y | | | | | | | | | |
| | | EIE524 | Cryptography Principle and Applications | Y | Y | | | Y | Y | | Y | | | | Y |
| | | EDS521 | Engineering Valuation/Appraisal | Y | | | | | | | Y | | | Y | Y |
| | | TMC521 | Total Man Concept X | Y | | | | | | | Y | | | Y | Y |
| | | TMC522 | Total Man Concept – Sports X | Y | | | | | | | Y | | | Y | Y |