

| Programme Name | Bachelor of Engineering (Honours) Electrical Engineering |
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| <p>Programme Description</p> | <p>BE (hons) (Electrical Engineering) is a 4-year degree that can be completed in 4 years of study. The programme is designed to prepare aspiring students for the following engineering attributes: To equip students with the knowledge and skills that are currently in high demand in the electrical and related industries</p> <ul style="list-style-type: none"> • To provide students with a foundation for further study and research • To enable students to acquire a broad understanding of electrical engineering, whilst providing opportunities for them to develop expertise within particular areas of specialization • To develop the students' ability to make an effective contribution to team-based activity • To encourage students to adopt an investigative approach and develop autonomous study skills in order to ensure their continuing professional development • To provide students with an understanding of the industrial context and an appreciation of a range of external factors that affect the work of the professional electrical engineer • To provide skill in networking of power generation plants in a national/regional service setup and provide supervisory role including control through software programs like SCADA. <p>The courses in the programme have both theoretical sessions, laboratory experimental exercises and practical sessions to enhance the learning and acquiring of cognitive (of the mind) and practical skill suitable for an engineer in this area of expertise. In the last year there a one-year capstone project followed by an Industrial Attachment of about six months to provide hands on experience in an industrial scenario to students to make them work- ready.</p> |
| <p>Majors</p> | <p>Bachelor of Engineering (Honours) (Electrical Engineering)</p> |
| <p>Minimum Requirements</p> | <p>Pass in Year 13 with 280 out of 400 marks with 50% or more marks in English, 70% or more marks in Mathematics and Physics, and pass in Technical Drawing/Applied Technology /Chemistry or any other Science or Technology subject or Completion of Foundation Science with GPA of 3.00 or more</p> |
| <p>Duration</p> | <p>4 Years</p> |
| <p>Programme Type</p> | <p>Degree</p> |
| <p>College Name</p> | <p>College of Engineering, Science and Technology</p> |
| <p>Campus</p> | <p>Derrick</p> |
| <p>Credit Points</p> | <p>480</p> |

| Programme Structure | | | |
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| Course Code | Course Title | Pre- requisite | Credit Points |
| | Semester 1 | | |
| COM 502 | Engineering Communication and Practices | MER | 15 |
| MEB 502 | Engineering Materials | MER | 15 |
| CEB 503 | Computer Aided Drafting and Modelling | MER | 15 |
| MTH 517 | Mathematics for Engineers I | MER | 15 |
| MER | Total Credit Points | | 60 |
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| | Semester 2 | | |
| EEB501 | Introduction to Electrical and Electronics Engineering | SEM 1 UNITS | 15 |
| CSC 510 | C++ Programming for Engineers | SEM 1 UNITS | 15 |
| MEB 503 | Engineering Mechanics | SEM 1 UNITS | 15 |
| MTH 518 | Mathematics for Engineers II | SEM 1 UNITS | 15 |
| MER | Total Credit Points | | 60 |
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| | Semester 3 | | |
| MTH 618 | Mathematics for Engineers III | SEM 2 UNITS | 15 |
| EEB 601 | Circuit Theory | SEM 2 UNITS | 15 |
| EEB 602 | Analog Electronics | SEM 2 UNITS | 15 |
| EEB 603 | Digital Electronics | SEM 2 UNITS | 15 |
| | Total Credit Points | | 60 |
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| | Semester 4 | | |

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| EEB 604 | Engineering Computations and Modelling | SEM 3 UNITS | 15 |
| EEB 605 | Engineering Electromagnetics | SEM 3 UNITS | 15 |
| EEB 681 | Engineering Planning | SEM 3 UNITS | 15 |
| PEB 601 | Design Project I | SEM 3 UNITS | 15 |
| | Total Credit Points | | 60 |
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| | Semester 5 | | |
| EEB 711 | Power Generation | SEM 4 UNITS | 15 |
| EEB 731 | Signals and Systems | SEM 4 UNITS | 15 |
| EEB 741 | Embedded System Design | SEM 4 UNITS | 15 |
| PEB 702 | Engineering and Society | SEM 4 UNITS | 15 |
| | Total Credit Points | | 60 |
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| | Semester 6 | | |
| EEB 712 | Electrical Machines | SEM 5 UNITS | 15 |
| EEB 713 | Power Transmission & Distributions | SEM 5 UNITS | 15 |
| EEB 722 | Control Systems | SEM 5 UNITS | 15 |
| PEB 701 | Design Project II | SEM 5 UNITS | 15 |
| | | | 60 |
| | Semester 7 | | |
| EEB 811 | Power Utilization and Services | SEM 6 UNITS | 15 |
| EEB 831 | Digital Signal Processing | SEM 6 UNITS | 15 |
| EEB 851 | Industrial Automation | SEM 6 UNITS | 15 |
| PEB 801 | Capstone Design Project I | SEM 6 UNITS | 15 |
| | | | 60 |

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| | Semester 8 | | |
| EEB 812 | Renewable Energy and New Technologies | SEM 7 UNITS | 15 |
| EEB881 | Innovation Management & New Product Development | SEM 7 UNITS | 15 |
| PEB 802 | Capstone Design Project II | SEM 7 UNITS | 30 |
| | | | 60 |
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| | Industrial Attachment | Completion of 6 months of relevant industrial attachment | |
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| | Total Credit Points | | 480 |

