

B.Sc (MECs) Course Structure

1 Year

SEMESTER - I	SEMESTER - II
Mathematics-I (Differential Calculus) Theory	Mathematics-II:Differential Equations (Theory)
Mathematics-I (Differential Calculus) Practical	Mathematics-II:Differential Equations (Practical)
Electronics-I (Network Analysis and Analog Electronics)Theory	Electronics-II:Linear and Digital Integrated Circuits (Theory)
Electronics-I (Network Analysis and Analog Electronics) Practical	Electronics-II : Linear and Digital Integrated Circuits (Practical)
Computer Science-I (Object Oriented Programming using C ++) Theory	Computer Science-II:Data Structures and file processing (Theory)
Computer Science-I (Object Oriented Programming using C ++) Practical	Computer Science-II:Data Structures and file processing (Practical)
Human Values and Professional Ethics	Indian Heritage and Culture
English - I	English - II
Second Language	Second Language

II Year

SEMESTER - III	SEMESTER - IV
English – III	English – IV
Environmental Studies	Science & Civilization
Mathematics-III:Real Analysis (Theory)	Mathematics-IV: Algebra (Theory)
Mathematics-III:Real Analysis (Practical)	Mathematics-IV : Algebra (Practical)
Electronics-III Communication Electronics (Theory)	Electronics-IV:Microprocessor & Microcontroller (Theory)
Electronics-III Communication Electronics (Practical)	Electronics-IV:Microprocessor & Microcontroller (Practical)

Computer Science-III:Numerical computing (Theory)	Computer Science-IV:Design and Analysis of Algorithms (Theory)
Computer Science-III: Numerical computing (Practical)	Computer Science-IV: Design and Analysis of Algorithms (Practical)
Choose any one: 1. VectorCalculus(Mathematics) 2. Linear Programming Problems (Mathematics) 3. Basic Instrumentation Skills (Electronics)	Choose any one: 1. Multiple Integral. (Mathematics) 2. Transportation, Assignment Problems and Job sequencing (Mathematics) 3. Computational Physics (Electronics)

Third Year

SEMESTER - V	SEMESTER - VI
Choose any one: Mathematics-V: (Theory) 1. Numerical Analysis 2. Complex Analysis.	Choose any one: Mathematics-VI: (Theory) 1. Linear Algebra 2. Matrices.
Mathematics-V: (Practical) 1. Numerical Analysis 2. Complex Analysis.	Mathematics-VI: (Practical) 1. Linear Algebra 2. Matrices.
Choose any one: Electronics-V: (Theory) 1. Electronics Instrumentation 2. Antenna Theory & Wireless Networks	Choose any one: Electronics-VI :(Theory) 1. Photonic Devices & Power Electronics 2. Digital Signal Processing.
Electronics-V: (Practical) 1. Electronics Instrumentation 2. Antenna Theory & Wireless Networks	Electronics-VI:(Practical) 1. Photonic Devices &Power Electronics 2. Digital Signal Processing
Choose any one: Computer Science-V (Theory) 1. Operating Systems 2. Data Mining 3. Cryptography	Choose any one: Computer Science-VI (Theory) 1. Information Security 2. Database Applications 3. Computer Networks
Computer Science-V (Practical) 1. Operating Systems 2. Data Mining 3. Cryptography	Computer Science-VI (Practical) 1. Information Security 2. Database Applications 3. Computer Networks
Choose any one:	Choose any Subject:

1. Numerical Methods. (Mathematics) 2. Number Theory (Mathematics) 3. Embedded Systems (Electronics) 4. ComputerGraphics (Computer Science) 5. Electronic Commerce (Computer Science)	Project (Mathematics /Electronics/Computer Science)
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Course Outcome

At the end of the course, students develop problem solving skills and learn various concepts which help in developing logical tools and models used to solve various real life problems. Also the students learn traditional techniques of solving algebraic, transcendental equations, differential and integral equations, which have applications in many disciplines. The students would attain a sound level in basic physics, and laid a secure foundation for research and higher studies. The students will have developed problem-solving skills, experimental and data analysis skills in physics. They learn various concepts which help them in understanding physical phenomenon in nature. In computer science, students develop ability to write algorithms for problems ranging from simple to complex. They understand the practical implementation of the algorithms using programming languages like C, C++, Java and Web Technologies and develop programs, appreciate the implications of operating systems in development of computing systems to solve the problems in best possible way. The students will be able to find the role of databases for the organization and to apply them to the real world.