



Mahavir Education Trust's

# SHAH & ANCHOR KUTCHHI ENGINEERING COLLEGE

Affiliated to University of Mumbai, Approved by D.T.E. & A.I.C.T.E. | Awarded 'A' Grade by D.T.E., M.S. | Electronics Engineering Program Accredited by N.B.A., New Delhi for 2 years w.e.f. 6<sup>th</sup> Aug., 2014 | Computer Engineering Program Re-Accredited by N.B.A., New Delhi for 3 years w.e.f. 1<sup>st</sup> July 2019 | Information Technology Program Accredited by N.B.A., New Delhi for 3 years w.e.f. 1<sup>st</sup> July 2019

DEPARTMENT OF COMPUTER ENGINEERING

## Semester – I



ISO 9001 Certified

**Unique Course Number: FEC101** **Course Name: Applied Mathematics-I**

Unique CO Number	Course Outcome (CO) Statement
CS1011	Apply the knowledge of Matrices to solve the problems
CS1012	Know and to understand various types of Numerical Methods
CS1013	Ability to interpret the Mathematical Results in Physical and Practical terms for Complex Numbers
CS1014	To find logarithm of Complex Numbers and the nth derivative using Leibnitz's Theorem
CS1015	Inculcate the habit of Mathematical thinking through indeterminate forms and Taylors Series Expansion
CS1016	Solve and Analyze the Partial Derivatives and its Applications in related field of Engineering

**Unique Course Number: FEC102** **Course Name: Applied Physics-I**

Unique CO Number	Course Outcome (CO) Statement
FEC1021	Identify and describe crystal structure.
FEC1022	Explain the physics of semiconductors and the operation of semiconductor devices.
FEC1023	Apply the concepts of crystal physics, semiconductors, superconductors, quantum mechanics, ultrasonic and acoustics to solve problems.
FEC1024	Explain the fundamentals of superconductors and quantum mechanics.
FEC1025	Summarize the basics of ultrasonic.
FEC1026	Summarize the basics of acoustics.

**Unique Course Number: FEC103** **Course Name: Applied Chemistry -I**

Unique CO Number	Course Outcome (CO) Statement
FEC1031	To apply the knowledge of types of hardness of water and its estimation
FEC1032	To apply the knowledge of various softening and disinfecting methods
FEC1033	To apply the knowledge of various polymers, their synthesis, properties and uses along with their fabrication techniques.
FEC1034	To apply the knowledge of thermodynamics in studying different chemical synthesis in equilibrium obeying Gibb's Phase rule.
FEC1035	To apply the knowledge of Lubricants, types, properties, mechanisms to avoid frictional resistance
FEC1036	To demonstrate knowledge of Portland cement and carbon nanomaterials

**Unique Course Number: FEC104****Course Name: Engineering Mechanics**

Unique CO Number	Course Outcome (CO) Statement
CS1041	Determine resultant of coplanar and non-coplanar system
CS1042	Determine centroid of plane lamina.
CS1043	Construct free body diagram and calculate the reactions for static equilibrium
CS1044	Apply laws of friction on bodies lying on horizontal and inclined plane.
CS1045	Evaluate the velocity, acceleration, time, force and energy of the particle as well as rigid bodies
CS1046	Locate instantaneous center of rotation of rigid bodies having plane motion.

**Unique Course Number: FEC105****Course Name: Basic Electrical Engineering**

Unique CO Number	Course Outcome (CO) Statement
CS1051	To understand fundamentals of dc circuits and apply knowledge of analyzing network theorems in dc circuits
CS1052	To learn the fundamentals and analyze single phase ac circuits
CS1053	To understand the concept of resonance in electrical circuits
CS1054	To learn the fundamentals and analyze three phase ac circuits
CS1055	To learn the basic operation and analyze the performance of single-phase transformer
CS1056	To understand the construction and basic operation of dc motors and generators

**Unique Course Number: FEC106****Course Name: Environmental studies**

Unique CO Number	Course Outcome (CO) Statement
FEC1061	Illustrate depleting nature of Environmental Resources/Global environmental crisis and eco system concept
FEC1062	Adopt to 3R Reuse/Recovery/Recycle
FEC1063	Study different control measures related to Environmental pollution
FEC1064	Study and Analyze various case studies related to Environmental Legislation
FEC1065	Demonstrate the working of Renewable Energy sources and Equipment
FEC1066	Illustrate the techniques of Disaster Management and Green building

**Unique Course Number: FEL101****Course Name: Basic Workshop Practice-I**

Unique CO Number	Course Outcome (CO) Statement
CSL1011	Study and use of hand tools and power tools
CSL1012	Study and demonstration of lathe machine operations
CSL1013	Design and development of sheet metal
CSL1014	Design and manufacturing of carpentry job