

DON BOSCO INSTITUTE OF TECHNOLOGY, KURLA, MUMBAI

Department of FE Engineering, (Odd semester, 2016-17)

Course Name:	Applied Mathematics I		
Course Code:	FEC101		
Faculty Name:	Dr. Minirani S, Ms. Shirly Chacko		
Year	1	Sem	I
CO Number	Course Outcome		
	The student will be able to		
FEC101.1	Recall different representations and operations of complex numbers, De-Moivre's theorem, Inverse and transpose of a matrix, the derivatives of standard functions		
FEC101.2	Identify the real and imaginary parts of complex numbers appearing in the circular, hyperbolic and logarithmic functions, Identify different types of matrices, Classify the vectors as linearly independent or dependent, find the partial derivatives of different types of functions		
FEC101.3	Apply De Moivre's theorem in finding the powers and roots of complex numbers, determine the rank of a matrix and apply the concept in solving the system of linear equations by analytical and numerical methods and also using SCILAB software, apply the concept of matrices to coding theory, apply the concept of partial differentiation in finding maxima and minima of functions, apply the concepts of successive differentiation in obtaining Taylor's series expansion of different functions, and apply L-Hospital's rule in finding limits of indeterminate forms		
FEC101.4	Compare the solutions of transcendental equations obtained using different numerical methods.		
Course Name:	Applied Physics I		
Course Code:	FEC102		
Faculty Name:	Jyoti Nimbhorkar and Sameer Hadkar		
Year	1	Sem	I
CO Number	Course Outcome		
	The student will be able to		
FEC102.1	Understand & explore the basic concepts of core Physics topics like Solid State, Semiconductor, Superconductivity and Wave Mechanics.		
FEC102.2	Integrate knowledge of the above mentioned Physics topics with their engineering disciplines.		
FEC102.3	Apply fundamental principles of Physics to solve numericals and problems relating to wave mechanics, energy and materials.		
Course Name:	Applied Chemistry I		
Course Code:	FEC103		
Faculty Name:	Kartiki B. and Anice M.		
Year	1	Sem	I
CO Number	Course Outcome		
	The student will be able to		
FEC103.1	Acquire knowledge about the different engineering chemistry concepts and fundamentals of material science which include water, polymers, lubricants, cements, refractories and nanomaterials.		
FEC103.2	Reason out, explain, justify and describe the various mechanisms and processes involved in the study of materials like water, polymers, lubricants, cements, refractories and nanomaterials.		
FEC103.3	Solve engineering problems based on their study of materials like water and lubricants.		
FEC103.4	Perform experiments, obtain data ,analyze data and draw proper inference on basis of their study of materials like water and lubricants		
Course Name:	Engineering Mechanics		
Course Code:	FEC104		
Faculty Name:	Swapnil Gujarathi, Rafael Fernando, Babitha Devdas, Nilesh Gaware		
Year	1	Sem	I
CO Number	Course Outcome		
	The student will be able to		
FEC104.1	State the fundamental laws and basic concepts that define the effect of forces on bodies at rest or in motion (statics & dynamics)		
FEC104.2	Demonstrate the understanding of the concepts learned in mechanics		
FEC104.3	Calculate the magnitude and direction of various forces acting on bodies at rest as well as resulting motion parameters related to bodies in motion.		
Course Name:	BEE		
Course Code:	FEC105		
Faculty Name:	Ms. Anuja S, Ms. Gejo G, Ms. Anjum K, Ms. Poonam C		
Year	1	Sem	I
CO Number	Course Outcome		
	The student will be able to		
FEC105.1	Define the basic principle and definitions of an electrical network (DC+AC), basic operation of single phase transformer and DC motors and generators.		
FEC105.2	Explain the fundamentals of DC circuits, single phase AC circuits, three phase AC circuits , construction of transformers and DC motors and generators.		
FEC105.3	Apply the principles and solve any given electrical circuit.		
FEC105.4	Analyze the various parameters for the given AC (single and three phase) and DC circuits and the performance of single phase transformer		
FEC105.5	Evaluate the various parameters for the given AC (single and three phase) and DC circuits and single phase transformer		
Course Name:	Environmental Studies		
Course Code:	FEC106		
Faculty Name:	Kartiki B, Anice M, Jeffi T , Dr. Mohini B		
Year	1	Sem	I
CO Number	Course Outcome		
	The student will be able to		
FEC106.1	Recall the structural and functional features of ecosystem. He/She will be able to define the concept of sustainable development and appropriate technology, and also the sources and causes of various types of pollution. He/She will be able to describe legislative measures to protect the environment, the various renewable energy resources and the concept of carbon credit and green buildings.		
FEC106.2	Explain, justify and describe the structure of ecological pyramids under different conditions, the different pollution control measures, renewable energy production methods. also explain different disaster management strategies based on the calamity.		