



## Department of Electronics Engineering

Course Number: ELX301

Course Name: Applied Mathematics - III

Unique CO Number	Course Outcome (CO) Statement
EXC3911	Understand the concept of Laplace Transform of various functions
EXC3912	Apply the Laplace Transform technique to solve ordinary differential equations
EXC3913	Expand the periodic function by using Fourier Series and Complex form of Fourier Series
EXC3914	Choose the Vector differential operator to compute the Gradient, Divergence and Curl of a given Scalar point function/ vector point function and find the Gradient, Divergence and Curl of sum and product of two functions
EXC3915	Apply Green's theorem to evaluate vector integral & to evaluate surface integral use Stoke's & Divergence theorem
EXC3916	Understand complex variable theory, applications of Harmonic Conjugate to get Orthogonal Trajectories and Analytics function

Course Number:ELX302

Course Name: Electronics Devices & Circuits -I

Unique CO Number	Course Outcome (CO) Statement
EXC3711	Students will be able to explain working and characteristics of diode.
EXC3712	Students will be able to explain application of diode as clipper and clamper.
EXC3713	Students will be able to perform DC and AC analysis of BJT.
EXC3714	Students will be able to perform DC and AC analysis of JFET and MOSFET.
EXC3715	Students will be able to explain working and characteristics of special semiconductor devices and their applications.
EXC3716	Students will be able to design electronics circuits for given specifications.



**Department of Electronics Engineering**

Course Number: **ELX303** Course Name: Digital Circuit Design

Unique CO Number	Course Outcome (CO) Statement
<b>ELX3031</b>	Define various terms used in the design of digital circuits.
<b>ELX3032</b>	Digital Circuit Design Lab. Express the given Boolean expression
<b>ELX3033</b>	Apply different reduction technique for Boolean expression
<b>ELX3034</b>	Analyze various combinational and sequential circuits.
<b>ELX3035</b>	Decide appropriate MSI devices for implementation of digital circuit
<b>ELX3036</b>	Design various applications of digital circuits as a part of mini project.

Course Number: ELX304

Course Name: ENAS

Unique CO Number	Course Outcome (CO) Statement
CO1	Quote the theorems definitive in circuit analysis
CO2	Compute current, voltage and power in various circuits.
CO3	Apply theorems to find circuit parameters
CO4	Analyze circuit behaviour in time domain and in the frequency domain
CO5	Calculate circuit parameters
CO6	Construct Circuits for various transfer functions

Course Number: ELX305

Course Name: Electronics Instruments & Measurement

Unique CO	Course Outcome (CO) Statement
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**Department of Electronics Engineering**

Number	
EXC3321	Recall the block diagram and characteristics of Instruments
EXC3322	Understand how to work with the electronic devices.
EXC3323	Classifying the Electronic devices according to their characteristics.
EXC3324	Evaluate parameters with the Digital Instruments e.g Signal Generators and Wave Analyzer
EXC3325	Evaluate to calculate the electronic component values.
EXC3326	Generate pattern of different frequency.

Course Number-ELX301 Course Name: Electronics Devices & Circuits -I Laboratory

Unique CO Number	Course Outcome (CO) Statement
EXL3711	Experiments are based on characteristics and applications of diode
EXL3712	Experiments are based on DC and AC analysis of BJT and FET
EXL3713	Experiments are based on regulators and rectifiers with filter circuit
EXL3714	Mini project based on devices and circuits mentioned in the syllabus

Course Number: ELXL302 Course Name: Digital Circuit Design Lab

Unique CO Number	Course Outcome (CO) Statement
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**Department of Electronics Engineering**

ELXL3021	Analyse combinational circuits.
ELXL3022	Analyse Sequential circuits.
ELXL3023	Design and Implement combinational circuits.
ELXL3024	Design and Implement Sequential circuits.
ELXL3025	Test and debug the mini-project circuit .
ELXL3026	Document the report for mini-project.

Course Number: ELXL303 Course Name: Electrical Network and Measurement Lab

Unique CO Number	Course Outcome (CO) Statement
EXL3321	Remember and implement various function of Transducer.
EXL3322	Understand the theoretical plots with the practical behaviour.
EXL3323	Demonstrate correct usage of a method or procedure
EXL3324	Identify the difference between theoretical and practical results
EXL3325	Agreements, verify values of evidence and justify of various components and circuits
EXL3326	Build models, develop a set of design solutions

Course Number: ELXL304

Course Name: Object Oriented Programming Methodology



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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 Electronics Engineering

Unique CO Number	Course Outcome (CO) Statement
EXC3621	Recall fundamental programming constructs to resolve problems.
EXC3622	Summarize the concept of class, object and packages.
EXC3623	Demonstrate the use of strings, arrays and -vectors.
EXC3624	Analyze Java feature of inheritance and interface
EXC3625	Recommend requirement of exception handling and multithreading.
EXC3626	Generate applets and develop GUI based application.