

Department of Electronics Engineering

Semester - III

Unique 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 Stokes's & Divergence theorem
EXC3916	Understand complex variable theory, applications of Harmonic Conjugate to get Orthogonal Trajectories and Analytics function

Unique Course Number:

ELX302

Course Name: Electronic Devices and Circuits I

Unique CO Number	Course Outcome (CO) Statement
EXC3711	Students will be able to explain working of semiconductor devices.
EXC3712	Students will be able to analyze characteristics of semiconductor devices.
EXC3713	Students will be able to perform DC and AC analysis of Electronics circuits.
EXC3714	Students will be able to compare various biasing circuits as well as various configurations of BJT, JFET and MOSFETs.
EXC3715	Students will be able to select best circuit for the given specifications/application.
EXC3716	Students will be able to design electronics circuits for given specifications.



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Unique Course Number: ELX303

Course Name: Digital Circuit Design

Unique CO Number	Course Outcome (CO) Statement
EXC3311	To perform conversion of number systems and codes.
EXC3312	To apply Boolean Algebra for the implementation and minimization of logic functions.
EXC3313	To analyze, design and implement combinational logic circuits.
EXC3314	To differentiate between logic families TTL and CMOS.
EXC3315	To analyze, design and implement sequential logic circuits.

Unique Course Number: ELX304 Course Name: Electrical Network Analysis and Synthesis

Unique CO Number	Course Outcome (CO) Statement
EXC3221	Apply their understanding of network theorems in analyzing complex circuits.
EXC3222	Evaluate the time and frequency response of electrical circuits and thereby understand the behaviour of electrical networks
EXC3223	Evaluate the inter-relationship among various circuit parameters and solve complex networks using these parameters
EXC3224	Synthesize electrical networks for a given network function and design simple filters.

Unique Course Number: ELX305 Course Name: Electronics Instruments and Measurement

Unique CO Number	Course Outcome (CO) Statement
EXC3321	Understand the static and dynamic characteristics of instruments.
EXC3322	Understand how to calculate the component values using bridges.



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EXC3323	Understand the Cathode Ray Oscilloscope, Measurement using CRO and DSO.
EXC3324	Understand the Digital instruments, Signal generators and wave analyzer
EXC3325	Understand the displacement, Pressure, Level and Flow Transducer

LO STATEMENTS

Unique Course Number: ELXL301 Course Name: Electronics Devices and Circuits-I Laboratory

Unique number	LO 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

Unique Course Number: ELXL302 Course Name: Digital Circuit Design Laboratory

Unique number	LO statement
EXL3311	Minimize SOP and POS functions using k map and Implement using universal gates.
EXL3312	To analyze, design and implement combinational circuit design
EXL3313	To analyze, design and implement Sequential circuit design.
EXL3314	To analyse, design and implement selected circuit for mini project



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Unique Course Number: ELXL303 Course Name: Electrical Network & Measurement Laboratory

Unique number	LO statement
EXL3321	Measure pressure with a transducer
EXL3322	Measure displacement with a transducer
EXL3323	Draw the characteristic of optical transducer
EXL3324	Measure temperature with a transducer

Unique Course Number:ELXL304 Course Name: Object Oriented Programming Methodology Laboratory

Unique number	LO statement
ELX31011	Students will be able to implement basic code in java.
ELX31012	Students will be able to implement the concepts of class and objects, and create packages.
ELX31013	Students will be able to implement the concepts of arrays, strings and vectors.



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SHAH & ANCHOR 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. 6th Aug., 2014 | Computer Engineering Program Re-Accredited by N.B.A., New Delhi for 3 years w.e.f. 1st July 2019 | Information Technology Program Accredited by N.B.A., New Delhi for 3 years w.e.f. 1st July 2019



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ELX31014	Students will be able to implement the concepts of inheritance, interface.
ELX31015	Students will be able to implement the concept of exception handling and multithreading
ELX31016	Students will be able to implement applets and develop GUI based application.