



**SWAMINARAYAN
UNIVERSITY**
THE RESERVOIR OF ALL KNOWLEDGE

Swaminarayan University

Faculty of Engineering

(DEGREE)

Department of Electrical Engineering

Teaching and Examination Scheme



Swaminarayan University

Teaching & Examination Scheme

Course – Faculty of Engineering (Degree)

Branch – Electrical Engineering

Semester – 1st

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE100101	Mathematics - 1	Basic Science	3	2	0	5	60	40	0	0	100
BE100112	Engineering Graphics & Design	Engineering Science	2	0	4	4	60	40	20	30	150
BE100104	Basic Electrical Engineering	Engineering Science	3	0	2	4	60	40	20	30	150
BE100109	Programming for Problem Solving	Engineering Science	3	0	2	4	60	40	20	30	150
BE100115	Physics (Group - 2)	Basic Science (Elective)	3	0	2	4	60	40	20	30	150
BE100114	Chemistry	Basic Science (Elective)	3	0	2	4	60	40	20	30	150
BE100113	Induction Program	Mandatory	0	0	0	0	0	0	0	0	0
	Total		14	2	10	21					

L=Lecture, T=tutorial, P=Practical, E=Theory External, M=Theory Internal, I=Practical Internal, V=Practical External



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Teaching & Examination Scheme

Course – Faculty of Engineering (Degree)

Branch – Electrical Engineering

Semester – 2nd

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE100108	Mathematics - 2	Basic Science	3	2	0	5	60	40	0	0	100
BE100102	Basic Mechanical Engineering	Engineering Science	3	0	2	4	60	40	20	30	150
BE100106	English	Humanities and Social Science	2	0	2	3	60	40	20	30	150
BE100105	Basic Electronics	Engineering Science	3	0	2	4	60	40	20	30	150
BE100110	Engineering Workshop	Engineering Science	0	0	4	2	0	0	20	80	100
BE100111	Environmental Science	Mandatory	2	2	0	0	60	40	0	0	100
	Total		13	4	10	18					

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Swaminarayan University

Teaching & Examination Scheme
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Branch – Electrical Engineering
Semester – 3rd

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE100301	Technical Writing & Communication Skills	Humanities and Social Science	2	0	2	3	60	40	20	30	150
BE100302	Indian Constitution	Mandatory	2	0	0	0	50	0	0	0	50
BE105301	Analog & Digital Electronics	Professional Core	4	0	2	5	60	40	20	30	150
BE105302	Electrical Circuit Analysis and Synthesis	Professional Core	4	0	2	5	60	40	20	30	150
BE105303	Modern Control Engineering	Engineering Science	3	0	2	4	60	40	20	30	150
BE105304	Advanced Engineering Mathematics	Basic Science	3	2	0	5	60	40	0	0	100
	Total		18	2	8	22					

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Course – Faculty of Engineering (Degree)

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Semester – 4th

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE105401	Engineering Economic Analysis	Humanities and Social Science	3	0	0	3	60	40	0	0	100
BE105402	Electrical Measurement and Instrumentation	Basic Science	4	0	2	5	60	40	20	30	150
BE105403	DC Machine and Transformer	Professional Core	3	0	2	4	60	40	20	30	150
BE105404	Power Electronics Converters and Controllers	Professional Core	4	0	2	5	60	40	20	30	150
BE105405	Electrical Power systems - 1	Professional Core	4	0	2	5	60	40	20	30	150
	Total		18	0	8	22					

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Course – Faculty of Engineering (Degree)
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Semester – 5th

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE100501	Contributor Personality Development Program	Personality Development (Elective)	2	0	0	2	60	40	20	30	150
BE100502	Integrated Personality Development Course		2	0	0	2	60	40	20	30	150
BE103502	Professional Ethics	Humanities and Social Science	3	0	0	3	60	40	0	0	100
BE105501	Signals and Systems	Professional Core	3	0	2	4	60	40	20	30	150
BE105502	Electrical Power System - 2	Professional Core	4	0	2	5	60	40	20	30	150
BE105503	Electrical Machine	Professional Core	4	0	2	5	60	40	20	30	150
BE103501	Python Programming	Open Elective - 1	2	0	2	3	60	40	20	30	150
BE105504	Disaster Management		3	0	0	3	60	40	0	0	100
BE101506	Operation Research		3	0	0	3	60	40	0	0	100
	Total		19	0	6	22					

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Semester – 6th

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE100601	Contributor Personality Development Program	Personality Development (Elective)	2	0	0	2	60	40	20	30	150
BE100602	Integrated Personality Development Course		2	0	0	2	60	40	20	30	150
BE105601	Microprocessors and Microcontrollers	Professional Core	4	0	2	5	60	40	20	30	150
BE105602	Electrical Measurement and Measuring Instruments	Professional Core	4	0	2	5	60	40	20	30	150
BE105603	Energy Conservation	Professional Elective - 1	3	0	0	3	60	40	0	0	100
BE105604	Wind and Solar Energy		3	0	0	3	60	40	0	0	100
BE105605	Element of Electrical Design		3	0	0	3	60	40	0	0	100
BE105606	Electric Drives	Professional Elective - 2	3	0	2	4	60	40	20	30	150
BE105607	Inter Connected Power System		3	0	2	4	60	40	20	30	150
BE105608	HVDC Transmission Systems		3	0	2	4	60	40	20	30	150
BE105609	Electrical Materials	Open elective - 2	3	0	0	3	60	40	0	0	100
BE103609	Cyber Laws and Ethics		3	0	0	3	60	40	0	0	100
	Total		19	0	6	22					

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Semester – 7th

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE100701	Summer Internship	Project	0	0	0	2	0	0	20	80	100
BE105701	Switchgear and protective devices	Professional Core	4	0	2	5	60	40	20	30	150
BE105702	Machine Design	Professional Elective - 3	3	0	2	4	60	40	20	30	150
BE105703	Microcontrollers		3	0	2	4	60	40	20	30	150
BE105704	Power System stability and Control		3	0	2	4	60	40	20	30	150
BE105705	Advanced High Voltage Engineering	Professional Elective - 4	3	0	2	4	60	40	20	30	150
BE105706	Electrical Drives		3	0	2	4	60	40	20	30	150
BE105707	Advance FACTS Devices		3	0	0	3	60	40	0	0	100
BE105708	Digital Signal Processors	Professional Elective - 5	3	0	0	3	60	40	0	0	100
BE105709	Operation and Control in Power System		3	0	0	3	60	40	0	0	100
BE105710	Residential and Commercial Electrical Systems		3	0	0	3	60	40	0	0	100
BE105711	Industrial Instrumentation and Control	Open Elective - 3	2	0	2	3	60	40	20	30	150
BE105712	Fundamentals of IoT		2	0	2	3	60	40	20	30	150
	Total		15	0	8	21					

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Semester – 8th

Subject Code	Subject Name	Category	L	T	P	Total Credit	E	M	I	V	Total Marks
BE105701	Internship/Project	Project Work	0	0	24	12	0	0	100	100	200
	Total		0	0	12	12					

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