GUDLAVALLERU ENGINEERING COLLEGE

(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)
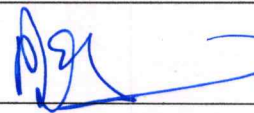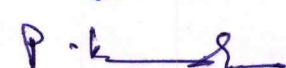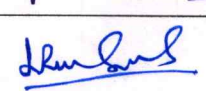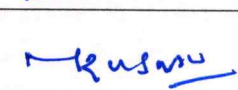Seshadri Rao Knowledge Village
Gudlavalleru – 521 356, Krishna District, Andhra Pradesh
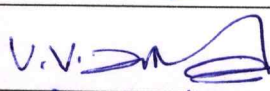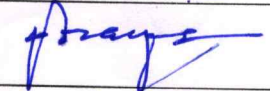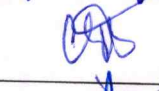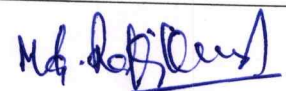
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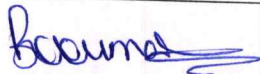
The **13**th Meeting of **Academic Council** of Gudlavalleru Engineering College (Autonomous), Seshadri Rao Knowledge Village, Gudlavalleru is held today i.e. 28-09-2020 (Monday) at 03-00 PM through online under the Chairmanship of Dr. P. Ravindra Babu, Principal of the College.

MEMBERS JOINED:

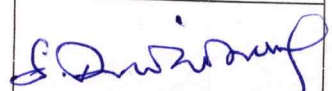| Sl. No.	Name of the Member	Designation	User Action	Timestamp	Signature
1	Dr. P. Ravindra Babu Principal	Chairman	Joined	9/28/2020, 2:59:50 PM	
2	Dr. P. Kodanda Rama Rao Professor & HoD of CE	Member	Joined	9/28/2020, 3:05:10 PM	
3	Dr. L. Ravi Srinivas Professor & HoD of EEE	Member	Joined	9/28/2020, 3:21:30 PM	
4	Dr. M. R. Ch. Sastry Professor & HoD of ME	Member	Joined	9/28/2020, 3:14:39 PM	
5	Dr. V.V. K. D. V. Prasad Professor & HoD of ECE	Member	Joined	9/28/2020, 3:13:54 PM	
6	Dr. S. Narayana Professor & HoD of CSE	Member	Joined	9/28/2020, 3:12:03 PM	
7	Dr. Ch. Kavitha Professor & HoD of IT	Member	Joined	9/28/2020, 3:19:04 PM	
8	Dr. Ch. Nirmal Chand Professor & HoD of MBA	Member	Joined	9/28/2020, 3:13:39 PM	
9	Dr. G. S. Bhaskara Rao Professor of Maths & HoD of BS&H	Member	Joined	9/28/2020, 3:15:57 PM	
10	Dr. M. Vijaya Lakshmi Assoc. Professor & HoD of English	Member	Could not join		---
11	Dr. S. R. K. Reddy Professor of CE & Advisor to the Management (Principal's Nominee)	Member	Joined	9/28/2020, 3:23:06 PM	
12	Dr. P. Nageswara Reddy Professor of ME & Director (AS&A) (Principal's Nominee)	Member	Joined	9/28/2020, 3:26:29 PM	
13	Mr. Md. Rafi Khan Associate Professor of EEE (Principal's Nominee)	Member	Joined	9/28/2020, 3:21:04 PM	

Sl. No.	Name of the Member	Designation	User Action	Timestamp	Signature
14	**Mr. D. K. Pavan Kumar** Sr.Gr.Asst.Professor in Maths (Principal's Nominee)	Member	Joined	9/28/2020, 3:22:18 PM	
15	**Dr. K. Lal Kishore** Director, R&D, CVR College of Engineering, Hyderabad, Former Vice – Chancellor, JNTUA, Ananthapur, Former Rector, JNTUH, Hyderabad (Governing Body Nominee)	Member	Joined	9/28/2020, 3:38:19 PM	
16	**Dr. D. V. L. N. Somayajulu** Professor of CSE, NIT, Warrangal (Governing Body Nominee)	Member	Joined	9/28/2020, 3:21:01 PM	
17	**Dr. Parimi S.R.** Professor of Civil Engineering and Structural Engg. Consultant, Vijayawada, (Governing Body Nominee)	Member	Joined	9/28/2020, 3:18:48 PM	
18	**Dr. Ramanujam Parthasarathy,** Professor of English, G3, Sreeja Apartments, Srinivasa Nagar Bank Colony, Vijayawada. (Governing Body Nominee)	Member	Joined	9/28/2020, 3:27:08 PM	
19	**Mr. J. S. R. K. Prasad,** CEO, Better Castings Pvt. Limited, JRD Tata Industrial Estate, Gantivari Street, Christurajupuram, Kanuru, Vijayawada – 520 007. (Governing Body Nominee)	Member	Joined	9/28/2020, 3:33:47 PM	
20	**Dr. R. Srinivasa Rao,** Professor of EEE, and Director, Academic & Planning, JNTUK, Kakinada (Affiliating University Nominee)	Member	Joined	9/28/2020, 3:33:39 PM	R. Srinivasalo
21	**Dr. L. Sumalatha,** Professor of CSE, UCEK, Kakinada, Director of Evaluation, JNTUK, Kakinada, (Affiliating University Nominee)	Member	Joined	9/28/2020, 3:18:58 PM	
22	**Dr. K. Ramu,** Professor of CE and Director, Finance, JNTUK, Kakinada, (Affiliating University Nominee)	Member	Joined	9/28/2020, 3:33:12 PM	
23	**Dr. G. V. S. N. R. V. Prasad** Professor of CSE & Vice Principal – Academics	Member Secretary	Joined	9/28/2020, 2:59:50 PM	
Invitees:					
25	Dr.B. Karuna Kumar	Member	Joined	9/28/2020, 3:13:36 PM	
26	Dr. K. Syam Sundar	Member	Joined	9/28/2020, 3:19:48 PM	

GUDLAVALLERU ENGINEERING COLLEGE
Seshadri Rao Knowledge Village, GUDLAVALLERU – 521 356

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Minutes of the 13th Meeting of the Academic Council held on 28-09-2020, Monday through online.

13.1 To confirm the minutes of the last Meeting of the Academic Council held on 28-07-2019.

Resolution: The Minutes of the 12th Academic Council meeting held on 28-07-2019 have been confirmed.

13.2 To consider and approve the Academic Regulations and Course structures of B.Tech, M.Tech & MBA, effective from the academic year 2020-21.

It is resolved and approved the academic regulations (R20) of UG B.Tech programs and PG M.Tech and MBA programs to be effective from the academic year 2020-21. The detailed academic regulations (R20) of UG & PG programs are given in **Annexure – I.**

The Member Secretary presented the course structure and syllabi of B.Tech, M.Tech and MBA courses from the academic year 2020-21 recommended by the Boards of Studies of various departments. The approved course structures are given below.

i) Civil Engineering

Curricular Component

Sl. No.	Course Work-Subject Area	Credits as per AICTE	% of Range As per UGC	Total No. of credits	% of credits
1	Basic Sciences (**BS**)	25	**15-20%**	24	15.00
2	Humanities and Social Sciences (**HSS**)	12	**10-15%**	16	10.00
3	Engineering Sciences (**ES**)	24	**10-20%**	29	18.13
4	Professional Core (**PC**)	48	**25-35%**	51	31.87
5	Professional Electives (**PE**)	18	**8-12%**	15	9.37
6	Open Electives (**OE**)	18	**5-10%**	9	5.63
7	Other (Project, Internship, etc.)	15	**8-10%**	16	10.00
8	Mandatory Non-Credit Courses	-	-	-	-
	Total :	**160**		**160**	

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Functional English	HSS	3	-	-	3
2	Linear Algebra and Calculus	BS	3	1	-	4
3	Engineering Physics	BS	3	-	-	3
4	Problem Solving using C *	ES	3	-	2	4
5	Engineering Graphics*	ES	2	-	4	4
6	Functional English Lab	HSS	-	-	2	1
7	Engineering Physics lab	BS	-	-	2	1
	Total:		**14**	**1**	**10**	**20**
8	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

*Integrated theory and practice course

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Engineering Chemistry	BS	3	-	-	3
4	Applied Mechanics	ES	3	1	-	4
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Professional Communication Lab	HSS	-	-	4	2
7	Engineering Chemistry Lab	BS	-	-	2	1
8	Applied Mechanics Lab and Building Trade Practice	ES	-	-	2	1
	Total:		**13**	**3**	**8**	**20**
9	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

II Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Building Materials and Building Construction	BS	2	-	-	2
2	Basics of Electrical and Mechanical Engineering	ES	3	-	-	3
3	Mechanics of Solids	ES	2	1	-	3
4	Fluid Mechanics	ES	2	1	-	3
5	Surveying	PC	2	1	-	3
6	Engineering Geology & Geo-spatial applications *	ES	2	-	2	3
7	Mechanics of Solids Lab	ES	-	-	2	1
8	Survey Field Work	PC	-	-	2	1
9	Logic Building and Basic Coding Principles	ES	-	-	2	1
	Total:		**13**	**3**	**8**	**20**
10	Sports and Games / Cultural (Mandatory Non-Credit Course)	MNC	-	-	2	-

   * Integrated theory and practice course

II Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Numerical & Statistical Methods	BS	2	1	-	3
2	Structural Analysis	PC	2	1	-	3
3	Hydraulics & Hydraulic Machines	PC	2	1	-	3
4	Concrete Technology	PC	3	-	-	3
5	Python Programming*	BS	2	-	2	3
6	**Open Elective –I**	OE	3	-	-	3
7	Fluid Mechanics & Hydraulic Machines Lab	ES	-	-	2	1
8	Concrete Technology Lab	PC	-	-	2	1
9	Programming for Corporate	ES	-	-	2	1
	Total :		**14**	**3**	**8**	**21**
10	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)	MNC	-	-	2	-

   * Integrated theory and practice course

III Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Theory of Structures	PC	2	1	-	3
2	Building Planning and Drawing	PC	2	-	2	3
3	Soil Mechanics	PC	2	-	-	2
4	Water & Wastewater Engineering	PC	3	-	-	3
5	**Professional Elective – I** i) Advanced Concrete Technology ii) Project Planning &Control iii) Air Pollution and Control iv) Advanced Surveying Techniques	PE	3	-	-	3
6	**Open Elective –II**	OE	3	-	-	3
7	Geotechnical Engineering Lab	PC	-	-	2	1
8	Water & Wastewater Engineering Lab	PC	-	-	2	1
9	Problem Solving Enhancement	HSS	-	-	2	1
10	Socially Relevant Project	PRO	-	-	2	1
	Total :		15	1	10	21

III Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Foundation Engineering	PC	3	-	-	3
2	Hydrology & Irrigation Engineering	PC	3	-	-	3
3	Design and drawing of R.C. Structural Elements **	PC	2	-	2	3
4	Highway Engineering	PC	3	-	-	3
5	**Professional Elective – II** i) Finite Element Methods ii) Ground Improvement Techniques iii) Watershed Management iv) Solid Waste Management	PE	3	-	-	3
6	**Open Elective – III**	OE	3	-	-	3
7	Highway Materials Lab	PC	-	-	2	1
8	Structural Engineering Lab	PC	-	-	2	1
9	Mini Project or Survey Camp / MOOCS	PRO	-	-	4	2
10	Linguistic Competency Building	HSS	-	-	2	1
	Total :		17	-	12	23

** Project based theory course

IV Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Managerial Economics and Financial Analysis	HSS	2	1	-	3
2	Estimation, Costing & Valuation	PC	2	-	2	3
3	Design & Drawing of Steel Structures	PC	2	-	2	3
4	Construction Technology and Practices	PC	2	-	2	3
5	**Professional Elective – III** i) Prestressed Concrete Structures ii) Advanced Foundation Engineering iii) Hydraulic structures iv) Industrial Wastewater Treatment	PE	3	-	-	3
6	Computer Applications in Civil Engineering Lab	PC	-	-	2	1
7	Mini Project or Survey Camp / MOOCs	PRO	-	-	4	2
8	Internship/Industrial Training / Practical Training	PRO	-	-	4	2
		Total :	11	1	16	20

IV Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	**Professional Elective – IV** i) Advanced Design of R.C structures ii) Industrial Steel Structures iii) Earthquake Resistant Design iv) Railways, Harbours & Air Port Engineering	PE	3	-	-	3
2	**Professional Elective – V** i) Repairs, Rehabilitation and Rehabilitation of Structures ii) Precast Concrete Structures iii) Earth Retaining Structures iv) Design & Drawing of Irrigation structures	PE	3	-	-	3
3	Project	PRO	-	-	18	9
		Total :	6	-	18	15

Honors Degree: Construction Engineering and Management

Courses Offered

Sl. No.	Year and Sem	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	II Year – II Sem	Building Regulations and Safety	3	-	-	3
2		Introduction to labour –management Relations	3	-	-	3
3	III Year – I Sem	Sustainable project management	3	-	-	3
4		Construction Engineering	3	-	-	3
5	III Year – II Sem	Civil Engineering System analysis	3	-	-	3
6		renovation and preservation of infrastructure	3	-	-	3
7	IV Year – I Sem	Building Services Lab	-	-	2	2
		Total :	18		2	20

ii) Electrical and Electronics Engineering

Curricular Component

Sl. No.	Course Work-Subject Area	Credits as per AICTE	% of Range As per UGC	Total No. of credits	% of credits
1	Basic Sciences (**BS**)	**25**	**15-20**	25	15.63
2	Humanities and Social Sciences (**HSS**)	**12**	**10-15**	15	9.37
3	Engineering Sciences (**ES**)	**24**	**10-20**	32	20.00
4	Professional Core (**PC**)	**48**	**25-35**	48	30.00
5	Professional Electives (**PE**)	**18**	**8-12**	15	9.37
6	Open Electives (**OE**)	**18**	**5-10**	9	5.63
7	Other (Project, Internship, etc.)	**15**	**8-10**	16	10.00
8	Mandatory Non-Credit Courses				
	Total :	**160**		**160**	

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week L	T	P	Total Credits
1	Functional English	HSS	3	-	-	3
2	Linear Algebra and Calculus	BS	3	1	-	4
3	Applied Chemistry	BS	3	-	-	3
4	Problem Solving Using C *	ES	3	-	2	4
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Applied Chemistry lab	BS	-	-	2	1
7	Functional English Lab	HSS	-	-	2	1
	Total:		**14**	**2**	**6**	**19**
8	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week L	T	P	Total Credits
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Solid State Physics	BS	3	-		3
4	Circuit Theory-I	ES	2	1	-	3
5	Discrete Mathematics	BS	2	1		3
6	Engineering Drawing	ES	1	-	4	3
7	Solid State Physics Lab	BS	-	-	2	1
8	Professional Communication Lab	HSS	-	-	4	2
	Total :		**13**	**3**	**10**	**21**
9	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

II Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Prime Movers	ES	2	1	-	3
2	Circuit Theory-II*	ES	2	-	2	3
3	DC Machines and Transformers	PC	2	1	-	3
4	Electronic Devices and Circuits	PC	2	1	-	3
5	Power Generation Systems	PC	3	-	-	3
6	Engineering Electro Magnetics	ES	2	1	-	3
7	Prime movers Lab	ES	-	-	2	1
8	Electronic Devices and Circuits Lab	PC	-	-	2	1
9	Logic Building and Basic Coding Principles	ES	-	-	2	1
	Total:		**13**	**4**	**8**	**21**
10	NSS / Fine Arts/ Yoga/ Self Defense/ Cultural (Mandatory Non-Credit Course)					

II Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Power Transmission Systems	PC	2	1	-	3
2	Induction & Synchronous Machines	PC	2	1	-	3
3	Digital Circuit Design*	PC	2	-	2	3
4	Python Programming*	ES	2	-	2	3
5	**Open Elective – I**	OE	3	-	-	3
6	Control Systems	ES	2	1	-	3
7	DC Machines and Transformers Lab	PC	-	-	4	2
8	Programming for Corporate	ES	-	-	2	1
	Total:		**13**	**3**	**10**	**21**
9	Sports & Games (Mandatory non-credit course)					

III Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Electrical Measurements	PC	3	-	-	3
2	Numerical Methods with Computer Applications *	BS	2	-	2	3
3	Power Electronics	PC	2	1	-	3
4	Signals and Systems	ES	2	1	-	3
5	**Professional Elective – I** 1. Electrical Distribution Systems 2 Electrical Machine Design 3. Advanced control systems 4. Data Structures	PE	3	-	-	3
6	**Open Elective – II**	OE	3	-	-	3
7	Control Systems Lab	ES	-	-	2	1
8	Induction & Synchronous Machines Lab	PC	-	-	2	1
9	Problem Solving Enhancement	HSS	-	-	2	1
10	Societal Impact Project	PRO				1
	Total:		**14**	**2**	**8**	**22**

III Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Microprocessors, Microcontrollers and its Applications **	PC	2	1	-	3
2	Analog and Digital IC Applications	PC	2	1	-	3
3	Power Semiconductor Drives	PC	2	1	-	3
4	**Professional Elective - II** i) Switch Gear & Protection ii) Digital Signal Processing iii) Principles of VLSI Design ii) CMOS Digital IC Design	PE	3	-	-	3
5	**Open Elective – III**	OE	3	-	-	3
6	Microprocessors, Microcontrollers and its Applications Lab	PC	-	-	2	1
7	Power Electronics and Drives Lab	PC	-	-	2	1
	Electrical Measurements Lab	PC	-	-	2	1
8	Mini Project / MOOCs		-	-	-	2
9	Linguistic Competency Building	HSS	-	-	2	1
	Total:		**12**	**3**	**10**	**21**

IV Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Design and Analysis of Power Systems**	PC	2	-	2	3
2	Power System Operation and Control	PC	3	-	-	3
3	Probability and Statistics	BS	2	1	-	3
4	**Professional Elective – III** i) Digital Control Systems ii) DSP Processor and Architecture iii) AI Techniques iv) Data Base Management Systems	PE	3	-	-	3
5	Engineering Economics & Project Management	HSS	2	-	-	2
6	Electrical Systems Simulation Lab	PC	-	-	2	1
7	Power Systems Lab	PC	-	-	2	1
8	Mini Project / MOOCs	PRO	-	-	4	2
9	Internship/IndustrialTraining / Practical Training		-	-	4	2
	Total:		**12**	**1**	**14**	**20**

** Project based Theory courses

IV Year 2ⁿᵈ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	**Professional Elective – IV** i) Flexible AC Transmission Systems ii) Big Data Analytics iii) Special Electrical Machines iv) Digital Image Processing	PE	2	1	-	3
2	**Professional Elective – V** i) High Voltage Engineering ii) Integration of Renewal Energy Sources iii) Cyber Security iv) Utilization of Electrical Energy	PE	2	1	-	3
3	Project	PRO	-	-	18	9
		Total:	4	2	18	15

* Integrated theory & practice course

** Project based Theory courses

Honors Degree: Electric Vehicles

Courses Offered

Sl. No.	Year and Semester	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	II Year – II Sem	Principles of Hybrid Electric Vehicles	3	-	-	3
2		Automotive Engineering	2	-	-	2
3	III Year – I Sem	Electric and Hybrid Vehicle Technology	3	-	-	3
4		Automotive Electronics	2	-	-	2
5	III Year – II Sem	Motors and Controls for Electric Vehicles and Industrial Applications	3	-	-	3
6		Vehicular Electric Power Systems	2	-	-	2
7	IV Year – I Sem	Design of Hybrid Vehicles	3	-	-	3
8		Control of Motors for Electric Vehicles Laboratory	-	-	2	2
			18	-	2	20

iii) Mechanical Engineering

Curricular Component

S. No.	Course Work-Subject Area	Credits as per AICTE	% of Range as per UGC	Total No.of Credits	% of Credits
1	Basic Sciences (**BS**)	25	15-20%	20	12.50
2	Humanities and Social Sciences (**HSS**)	12	10-15%	16	10.00
3	Engineering Sciences (**ES**)	24	10-20%	28	17.50
4	Professional Core (**PC**)	48	25-35%	56	35.00
5	Professional Electives (**PE**)	18	8-12%	15	9.38
6	Open Electives (**OE**)	18	5-10%	9	5.62
7	Other (Project, Internship etc.)	15	8-10%	16	10.00
8	Mandatory Non-Credit Courses	-	-	-	-
	Total :	**160**		**160**	

Course Structure

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Functional English	HSS	3	-	-	3
2	Linear Algebra and Calculus	BS	3	1	-	4
3	Physics for Engineers	BS	3	-	-	3
4	Problem Solving Using C *	ES	3	-	2	4
5	Engineering Graphics *	ES	2	-	4	4
6	Functional English Lab	HSS	-	-	2	1
7	Engineering Physics Lab	BS	-	-	2	1
	Total:		14	1	10	20
	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

 * Integrated theory & practice course

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Chemistry for Engineers	BS	3	-	-	3
4	Engineering Mechanics	ES	3	1	-	4
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Professional Communication Lab	HSS	-	-	4	2
7	Engineering Mechanics Lab and Fuels & Lubricants Lab	BS	-	-	2	1
8	Engineering Workshop	ES	-	-	2	1
	Total:		13	3	8	20
	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

II Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Numerical and Statistical Methods	BS	2	1	-	3
2	Elements of Electrical & Electronics Engineering	ES	3	-	-	3
3	Engineering Thermodynamics	ES	2	1	-	3
4	Kinematics of Machines	ES	2	1	-	3
5	Mechanics of Solids	PC	2	1	-	3
6	Materials Engineering	PC	3	-	-	3
7	Electrical & Electronics Engineering Lab	ES	-	-	2	1
8	Materials and Testing Lab	PC	-	-	2	1
9	Numerical & Statistical Methods Lab	BS	-	-	2	1
10	Logic Building and Basic Coding Principles	ES	-	-	2	1
11	Sports and Games / Cultural		-	-	2	0
	Total:		14	4	10	22

II Year 2nd Semester

II Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Manufacturing Science	PC	3	-	-	3
2	Python Programming*	ES	2	-	2	3
3	Applied Thermodynamics	PC	2	1	-	3
4	Dynamics of Machines	PC	2	1	-	3
5	Fluid Mechanics & Hydraulic Machines	PC	2	1	-	3
6	**Open Elective – I**	OE	3	-	-	3
7	Thermal Engineering Lab	PC	-	-	2	1
8	Manufacturing Processes Lab	PC	-	-	2	1
9	Theory of Machines Lab	PC	-	-	2	1
10	Programming for Corporate	ES	-	-	2	1
11	NSS /Fine Arts / Yoga / Self Defense		-	-	2	0
	Total:		**14**	**3**	**12**	**22**

* Integrated Theory and Practice course

III Year 1st Semester

III Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Steam and Gas Turbines	PC	2	1	-	3
2	Machine Tools & Metrology	PC	3	-	-	3
3	Design of Machine elements	PC	2	1	-	3
4	**Professional Elective – I** i) Automobile Engineering ii) Non Destructive Testing & Evaluation iii) Composite Materials iv) Finite Element Methods	PE	3	-	-	3
5	**Open Elective – II**	OE	3	-	-	3
6	Fluid Mechanics and Hydraulic machines Lab	PC	-	-	2	1
7	Machine Tools & Metrology Lab	PC	-	-	2	1
8	Computer Aided Machine Drawing Lab	PC	-	-	4	2
9	Problems Solving Enhancement	HSS	-	-	2	1
10	Society Impact Project	PRO	-	-	2	1
	Total :		**13**	**2**	**12**	**21**

III Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Heat Transfer	PC	2	1	-	3
2	Machining Science	PC	3	-	-	3
3	Design of Transmission Elements**	PC	2	1	-	3
	Professional Elective – II					
4	i) Robotics ii) Computational Fluid Dynamics iii) Additive Manufacturing iv) Tribology	PE	3	-	-	3
5	**Open Elective – III**	OE	3	-	-	3
6	Heat Transfer Lab	PC	-	-	2	1
7	Engineering Analysis Lab	PC	-	-	2	1
8	Mini Project / MOOCs	PRO	-	-	4	2
9	Linguistic Competency Building	HSS	-	-	2	1
	Total:		**13**	**2**	**10**	**20**

IV Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Industrial Management	PC	2	1	-	3
2	Measurements & Mechatronics	PC	3	-	-	3
3	Engineering Economics & Accountancy	HSS	3	-	-	3
4	Digital Manufacturing	PC	2	1	-	3
	Professional Elective – III					
5	i) Mechanical Vibrations ** ii) Refrigeration & Air Conditioning** iii) Optimization Techniques** iv) Design and optimization of Thermal Systems **	PE	3	-	-	3
6	Measurements Lab and Mechatronics Lab	PC	-	-	2	1
7	Internship/IndustrialTraining / Practical Training	PRO	-	-	4	2
8	Mini Project / MOOCs	PRO	-	-	4	2
	Total:		**13**	**2**	**10**	**20**

IV Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	**T**	**P**	
1	**Professional Elective – IV**					
	i) Production Planning and Control	PE	3	-	-	3
	ii) Power Plant Engineering					
	iii) Data Base Management Systems					
	iv) Condition Monitoring					
2	**Professional Elective – V**					
	i) Automation in Manufacturing	PE	3	-	-	3
	ii) Fluid Power and Control systems					
	iii) Big Data Analytics					
	iv) Design for Manufacturing and Assembly					
3	Project Work	PRO	-	-	18	9
		Total:	**6**	**-**	**18**	**15**

Honors Degree: Robotics

Courses Offered

Sl. No.	Course Code	Name of the Course / Laboratory	No. of Hours per week			Total Credits
			L	**T**	**P**	
1	II Year – II Sem	Design of Mechanism and Manipulators	3	-	-	3
2		Pneumatic and Hydraulic Control	2	-	-	2
3	III Year – I Sem	Drives and Control Systems for Automation	3	-	-	3
4		Sensors Applications in Manufacturing	2	-	-	2
5	III Year – II Sem	Machine Vision and Image Processing	3	-	-	3
6		Hydraulic and Pneumatic Circuits Laboratory	-	-	2	2
7	IV Year – I Sem	Artificial Intelligence and Expert Systems in Automation	3	-	-	3
8		Robotics and Automation Laboratory	-	-	2	2
		Total :	**16**	**-**	**4**	**20**

iv) Electronics and Communication Engineering

Curricular Component

S. No.	Course Work-Subject Area	Credits as per AICTE	% of Range as per UGC	Total No.of Credits	% of Credits
1	Basic Sciences (**BS**)	**25**	**15-20%**	26	16.25
2	Humanities and Social Sciences (**HSS**)	**12**	**10-15%**	17	10.62
3	Engineering Sciences (**ES**)	**24**	**10-20%**	19	11.87
4	Professional Core (**PC**)	**48**	**25-35%**	58	36.25
5	Professional Electives (**PE**)	**18**	**8-12%**	15	9.38
6	Open Electives (**OE**)	**18**	**5-10%**	9	5.63
7	Other (Project, Internship etc.)	**15**	**8-10%**	16	10.00
8	Mandatory Non-Credit Courses	**-**	**-**	**-**	**-**
	Total :	**160**		**160**	

Course Structure

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	Functional English	HSS	3	-	-	3
2	Linear Algebra and Calculus	BS	3	1	-	4
3	Applied Chemistry	BS	3	-	-	3
4	Problem Solving using C*	ES	3	-	2	4
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Applied Chemistry Lab	BS	-	-	2	1
7	Electronic Workshop	PC	-	-	4	2
8	Functional English Lab	HSS	-	-	2	1
		Total :	14	2	10	21
9	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

* Integrated theory and practice course

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Linear Electrical Networks	ES	3	-	-	3
4	Solid-State Physics	BS	3	-	-	3
5	Engineering Drawing	ES	1	-	4	3
6	Solid-State Physics Lab	BS	-	-	4	2
7	Professional Communication Lab	HSS	-	-	4	2
		Total :	12	1	12	19
8	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

II Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	Probability Theory and Stochastic Process	BS	2	1	-	3
2	Electronic Devices	PC	3	-	-	3
3	Signals and Systems	PC	2	1	-	3
4	Engineering Economics and Project Management	HSS	2	-	-	2
5	Electromagnetic Field Theory	BS	3	-	-	3
6	Numerical Methods & Complex Analysis	BS	2	1	-	3
7	Electronic Devices Lab	PC	-	-	2	1
8	Linear Electrical Networks Lab	ES	-	-	2	1
9	Logic Building and Algorithmic Programming	ES	-	-	2	1
	Total :		14	2	6	20
	NSS /Fine Arts / Self Defense/ Yoga (Mandatory Non-Credit Course)		-	-	2	-

II Year 2ⁿᵈ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	Transmission Lines and Waveguides	PC	3	-	-	3
2	Analog Circuits	PC	3	-	-	3
3	Analog Communications	PC	3	-	-	3
4	Python Programming *	ES	1	-	4	3
5	Digital Circuit Design	PC	3	-	-	3
6	**Open Elective – I**	OE	3	-	-	3
7	Analog Circuits Lab	PC	-	-	2	1
8	Digital Circuit Design Lab	PC	-	-	2	1
9	Programming for Corporate	ES	-	-	2	1
		Total :	**16**	**-**	**10**	**21**
	Sports and Games / Cultural (Mandatory non-credit course)		-	-	2	-

* Integrated theory and practice course

III Year 1ˢᵗ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	Linear Integrated Circuits Applications	PC	2	1	-	3
2	Digital Communications	PC	2	-	-	2
3	Antennas and Wave Propagation	PC	3	-	-	3
4	VLSI Design*	PC	2	-	2	3
5	**Professional Elective – I**	PE	3	-	-	3
	i) Nano Electronics ii) CAD for VLSI iii) Bio-Medical Engineering iv) Computer Networks and Network Security					
6	**Open Elective – II**	OE	3	-	-	3
7	Linear Integrated Circuits Applications Lab	PC	-	-	2	1
8	Analog and Digital Communications Lab	PC	-	-	2	1
9	Competitive Coding	ES	-	-	2	1
10	Socially Relevant Project	OTH	-	-	2	1
		Total :	**15**	**1**	**10**	**21**
	Optional Elective – II	OPE	-	-	-	-

* Integrated theory and practice course

III Year 2ⁿᵈ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	Digital Signal Processing	PC	3	-	-	3
2	Microprocessors , Microcontrollers and Applications**	PC	2	-	2	3
3	Control Systems	ES	2	-	-	2
4	Microwave and Optical Communications	PC	3	-	-	3
5	**Open Elective – III**	OE	3	-	-	3
6	**Professional Elective – II**	PE	3	-	-	3

	i) Satellite Communications ii) Digital IC Design iii) Information Theory & Coding iv) Low Power VLSI Circuits					
7	Microprocessor and Microcontroller Interfacing Lab	PC	-	-	2	1
8	Digital Signal Processing Lab	PC	-	-	2	1
9	Linguistic Competency Building	HSS	-	-	2	1
10	Mini project/MOOCs	OTH	-	-	4	2
		Total :	16	-	12	22

** Project based theory course

IV Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	Digital Image Processing	PC	3	-	-	3
2	Embedded System Design	PC	3	-	-	3
3	Sensors and Instrumentation	ES	3	-	-	3
4	Internet of Things	PC	3	-	-	3
5	**Professional Elective – III**	PE	3	-	-	3
	i) ASIC Design ii) DSP Processors and Architectures iii) Cyber Physical Systems iv) Cellular Mobile Communications					
6	Microwave and Optical Communications Lab	PC	-	-	2	1
7	Internet of Things Lab	PC	-	-	2	1
8	Internship/IndustrialTraining / Practical Training	OTH	-	-	4	2
9	Mini Project / MOOCs	OTH	-	-	4	2
		Total :	15	-	12	21

IV Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total No.of Credits
			L	T	P	
1	**Professional Elective – IV**	PE	3	-	-	3
	i) RADAR Engineering ii) SOC Design iii) Multi rate Signal Processing iv) Digital TV Engineering					
2	**Professional Elective – V**	PE	3	-	-	3
	i) Wireless Sensor Networks ii) Mixed Signal IC Design iii) VLSI Signal Processing iv) Industrial Internet of Things					
3	Main Project (Carried out in IV –I & IV-II)	OTH	-	-	18	9
		Total :	6	-	18	15

Honors Degree: Internet of Things

Courses Offered

Sl. No.	Year and Sem	Name of the Course / Laboratory	L	T	P	No. of Credits
1	II Year – II Sem	Principles of Sensors and Signal Conditioning	3	-	-	3
2		Artificial intelligence	2	-	-	2
3	III Year – I Sem	Fundamentals of machine learning	3	-	-	3
4		Data science	2	-	-	2
5	III Year – II Sem	Principles of Cloud Computing	3	-	-	3
6		IoT Communication Protocols	2	-	-	2
7	IV Year – I Sem	IoT System Design	3	-	-	3
8		Block Chain Technologies	2	-	-	2
				Total	:	20

v) Internet of Things:

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		L	T	P	Total No.of Credits
1	Functional English	HSS	3	-	-	3
2	Linear Algebra and Calculus	BS	3	1	-	4
3	Applied Physics	BS	3	-	-	3
4	Basic Electrical Engineering	ES	3	-	-	3
5	Problem Solving Using C*	ES	3	-	2	4
6	Functional English Lab	HSS	-	-	2	1
7	Engineering physics Lab	ES	-	-	2	1
		Total :	15	1	6	19
8	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

*   Integrated theory and practice course

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		L	T	P	Total No.of Credits
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Introduction to Internet of Things	PC	3	-	-	3
4	Computer Aided Engineering Drawing *	ES	1	-	4	3
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Professional Communication Lab	HSS	-	-	4	2
7	Electronic workshop	ES	-	-	4	2
8	Basic Electrical Engineering Lab	ES	-	-	4	2
		Total :	11	2	16	21
	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

*   Integrated theory and practice course

vi) Computer Science and Engineering

Curricular Component

S. No.	Course Work-Subject Area	Credits as per AICTE	% of Range as per UGC	Total No.of Credits	% of Credits
1	Basic Sciences (**BS**)	**25**	**15-20%**	20	12.50
2	Humanities and Social Sciences (**HSS**)	**12**	**10-15%**	15	9.37
3	Engineering Sciences (**ES**)	**24**	**10-20%**	30	18.75
4	Professional Core (**PC**)	**48**	**25-35%**	55	34.37
5	Professional Electives (**PE**)	**18**	**8-12%**	15	9.37
6	Open Electives (**OE**)	**18**	**5-10%**	9	5.63
7	Other (Project, Internship etc.)	**15**	**8-10%**	16	10.00
8	Mandatory Non-Credit Courses	**-**	**-**	-	-
	Total :	**160**		**160**	

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Functional English	HSS	3	-	-	3
2	Linear Algebra and Calculus	BS	3	1	-	4
3	Applied Physics	BS	3	-	-	3
4	Programming for Problem Solving	ES	3	-	-	3
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Functional English Lab	HSS	-	-	2	1
7	Applied Physics Lab	BS	-	-	2	1
8	C Programming Lab	ES	-	-	4	2
	Total :		**14**	**2**	**8**	**20**
9	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Basic Electronic Devices	ES	2	-	-	2
4	Python Programming	ES	3	-	-	3
5	Data Structures	PC	3	-	-	3
6	Professional Communication Lab	HSS	-	-	4	2
7	Python Programming Lab	ES	-	-	4	2
8	Data Structures Lab	PC	-	-	4	2
	Total :		**13**	**1**	**12**	**20**
	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

II Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Managerial Economics and Financial Analysis	HSS	3	-	-	3
2	Probability and Statistics	BS	2	1	-	3
3	Database Management Systems	PC	3	-	-	3
4	Digital Logic Design	ES	2	1	-	3
5	Object Oriented Programming through Java	ES	3	-	-	3
6	Database Management Systems Lab	PC	-	-	4	2
7	Statistics using R Lab	BS	-	-	4	2
8	Java Programming Lab	ES	-	-	4	2
9	Logic Building and Algorithmic Programming	ES	-	-	2	1
		Total :	13	2	14	22
	Sports and Games (Mandatory Non-credit course)	MC				-

II Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Discrete Mathematics	BS	2	1	-	3
2	Software Engineering *	PC	3	-	2	4
3	Computer Organization	PC	3	-	-	3
4	Formal Languages and Automata Theory	PC	2	1	-	3
5	Operating Systems	PC	3	-	-	3
6	**Open Elective – I**	OE	3	-	-	3
7	Operating Systems Lab	PC	-	-	2	1
8	Programming for Corporate	ES	-	-	2	1
		Total :	16	2	6	21
	Fine Arts / Yoga / Self Defense/ Cultural (Mandatory Non-Credit Course)	MC				0

* Integrated Theory and Practice course

III Year 1ˢᵗ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Compiler Design	PC	3	-	-	3
2	Data Warehousing and Data Mining	PC	3	-	-	3
3	Web Technologies	PC	3	-	-	3
4	**Open Elective – II**	OE	3	-	-	3
5	**Professional Elective-I** i) UML and Design Patterns ii) Recommender Systems iii) Embedded Systems and Internet of Things iv) Advanced Data Structures	PE	3	-	-	3
6	Data Mining Lab	PC	-	-	4	2
7	Web Technologies Lab	PC	-	-	4	2
8	Society Related Project	PRO	-	-	2	1
9	Competitive Coding	ES	-	-	2	1
		Total :	15	-	14	21

** Project Based Theory Course

III Year 2ⁿᵈ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Computer Networks	PC	3	-	-	3
2	Artificial Intelligence	ES	3	-	-	3
3	Data Science	ES	3	-	-	3
4	**Open Elective – III**	OE	3	-	-	3
5	**Professional Elective-II** i) Software Testing Methodologies ii) Computational Biology and Bio-Informatics iii) Wireless Networks iv) Scripting Languages	PE	3	-	-	3
6	Computer Networks Lab	PC	-	-	2	1
7	Data Science Lab	ES	-	-	2	1
8	Mini Project / MOOCs	PRO	-	-	4	2
9	Linguistic Competency Building	HSS	-	-	2	1
		Total :	15	-	10	20

IV Year 1ˢᵗ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Machine Learning **	PC	3	-	2	4
2	Information Security	PC	3	-	-	3
3	Design and Analysis of Algorithms	PC	3	1	-	3
4	Big Data Analytics	PC	3	-	2	3
5	**Professional Elective – III** i) Blockchain Technologies ii) Web Mining iii) Software Project Management iv) MEAN Stack Technologies	PE	3	-	-	3
6	Big Data Analytics Lab	PC	-	-	2	1
7	Mini Project/MOOCs	PRO			4	2
8	Internship/IndustrialTraining / Practical Training	PRO	-	-	-	2
	Total :		**15**	**1**	**10**	**21**

IV Year 2ⁿᵈ Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	**Professional Elective – IV** i) Cloud Computing ii) Agile Software Development Process iii) Quantum Computing iv) Image Processing	PE	3	-	-	3
2	**Professional Elective – V** i) Deep Learning ii) Distributed Systems iii) Cyber Security iv) Virtual and Augmented Reality	PE	3	-	-	3
3	Project Work	PRO	-	-	18	9
	Total :		**6**		**18**	**15**

Honors Degree: Data Science

Courses Offered

Sl. No.	Year and Sem	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	II Year-II Sem	Fundamentals of Data Science	3	-	-	3
2		Data Science Lab	-	-	2	2
3	III Year- I Sem	Data Visualization	3	-	-	3
4		Data Visualization Lab	-	-	2	2
5	III Year-II Sem	Regression and Time Series Analysis	3	-	-	3
6		Regression and Time Series Analysis Lab	-	-	2	2
7	IV Year-I Sem	Business Analytics	3	-	-	3
8		Business Analytics Lab	-	-	2	2
		Total :	**12**	**-**	**6**	**20**

vii) Artificial Intelligence and Data Science:

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Functional English	HSS	3	-	-	3
2	Linear Algebra	BS	3	1	-	4
3	Engineering Calculus	BS	2	1	-	3
4	Programming for Problem Solving	ES	3	-	-	3
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Functional English Lab	HSS	-	-	2	1
7	C Programming Lab	ES	-	-	4	2
		Total :	13	3	6	19
8	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Descriptive Statistics	BS	2	1	-	3
4	Python Programming	ES	3	-	-	3
5	Data Structures	PC	3	-	-	3
6	Professional Communication Lab	HSS	-	-	4	2
7	Python Programming Lab	ES	-	-	4	2
8	Data Structures Lab	PC	-	-	4	2
		Total :	13	2	12	21
	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

viii) Information Technology

Curricular Component

S. No.	Course Work-Subject Area	Credits as per AICTE	% of Range as per UGC	Total No.of Credits	% of Credits
1	Basic Sciences (BS)	25	15-20	24	15.00
2	Humanities and Social Sciences (HSS)	12	10-15	14	8.75
3	Engineering Sciences (ES)	24	10-20	28	17.50
4	Professional Core (PC)	48	25-35	54	33.75
5	Professional Electives (PE)	18	8-12	17	10.63
6	Open Electives (OE)	18	5-10	09	5.63
7	Other (Project, Internship, etc.)	15	8-10	14	8.75
8	Mandatory Non-Credit Courses		-	-	-
	Total :	160		160	

I Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Functional English	HSS	3	-	-	3
2	Linear Algebra and Calculus	BS	3	1	-	4
3	Applied Chemistry	BS	3	-	-	3
4	Elements of Electronics Engineering	ES	3	-	-	3
5	Programming for Problem Solving	ES	3	-	-	3
6	Functional English Lab	HSS	-	-	2	1
7	Applied Chemistry lab	BS	-	-	2	1
8	C Programming Lab	ES	-	-	4	2
	Total :		15	1	8	20
9	Environmental Studies (Mandatory Non-Credit Course)		2	-	-	-

I Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Professional Communication	HSS	2	-	-	2
2	Integral Transforms and Vector Calculus	BS	3	1	-	4
3	Applied Physics	BS	3	-	-	3
4	Data Structures	PC	3	-	-	3
5	Universal Human Values 2: Understanding Harmony	HSS	2	1	-	3
6	Professional Communication Lab	HSS	-	-	4	2
7	Applied Physics Lab	BS	-	-	2	1
8	Data Structures Lab	PC	-	-	4	2
	Total:		13	2	10	20
9	Constitution of India (Mandatory Non-Credit Course)		2	-	-	-

II Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Discrete Mathematical Structures	BS	3	-	-	3
2	Object Oriented Programming through Java	ES	3	-	-	3
3	Digital Logic Design	ES	3	-	-	3
4	Database Management Systems	PC	3	-	-	3
5	Principles of Software Engineering	PC	3	-	-	3
6	Object Oriented Programming Lab	ES	-	-	4	2
7	Database Management Systems Lab	PC	-	-	4	2
8	Unified Modeling Language Lab	PC	-	-	2	1
9	Logic Building & Algorithmic Programming	ES	-	-	2	1
	Total :		15	-	12	20
10	NSS / Fine Arts / Yoga / Self Defense (Mandatory Non-Credit Course)		-	-	2	-

II Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Probability and Statistics	BS	3	-	-	3
2	Web Technologies	PC	3	-	-	3
3	Computer Organization	ES	3	-	-	3
4	Python Programming	ES	3	-	-	3
5	Theory of Computation	PC	2	-	-	2
6	**Open Elective – I**	OE	3	-	-	3
7	Web Technologies Lab	PC	-	-	4	2
8	Python Programming Lab	PC	-	-	4	2
9	Programming for Corporate	ES	-	-	2	1
		Total	**17**	**-**	**10**	**22**
10	Sports and Games / Cultural (Mandatory Non-Credit Course)		-	-	2	-

III Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Numerical Methods & Optimization Techniques	BS	3	-	-	3
2	Operating Systems	PC	3	-	-	3
3	Software Engineering	PC	3	-	-	3
4	Compiler Design	PC	3	-	-	3
5	Artificial Intelligence	PC	3	-	-	3
	Open Elective – II	OE	3	-	-	3
6	**Professional Elective – I** i) Biometrics ii) Neural Networks and Fuzzy Systems iii) Advanced Data Structures iv) Computer Graphics	PE	3	-	-	3
7	AI Tools & Techniques Lab	PC	-	-	2	1
8	UNIX Operating Systems Lab	PC	-	-	2	1
9	Societal Impact Project	PR	-	-	2	1
10	Competitive Coding	ES	-	-	2	1
		Total :	**17**	**-**	**8**	**21**

III Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Design and Analysis of Algorithms	PC	3	-	-	3
2	Data Warehousing and Data Mining	PC	3	-	-	3
3	Computer Networks	PC	3	-	-	3
4	**Open Elective-III**	OE	3	-	-	3
5	**Professional Elective – II** i) Mobile Computing ii) Data Science Using R iii) Software Project Management iv) Image Processing	PE	3	-	-	3
6	Computer Networks & Data Mining Lab	PC	-	-	4	2
7	Mobile Application Development Lab	PC	-	-	4	2
8	Mini Project / MOOCs	PC	-	-	-	2
9	Linguistic Competency Building	HSS			2	1
	Total :		**15**	**-**	**10**	**22**

IV Year 1st Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	Cryptography & Network Security *	PC	2	-	2	3
2	Machine Learning **	PC	2	-	2	3
3	Bigdata Analytics	PC	3	-	-	3
4	Managerial Economics and Financial Analysis	HSS	2	-	-	2
5	**Professional Elective – III** i) Cloud Computing ii) M-Commerce iii) Software Testing Methodologies iv) Game Theory	PE	3	-	-	3
6	Bigdata Analytics lab	PC	-	-	4	2
7	Internship/Industrial Training / Practical Training	PR	-	-	-	2
8	Mini Project / MOOCs	PR	-	-	4	2
	Total		**12**	**-**	**12**	**20**

* Integrated Theory and Practice course

** Project based Theory Course

IV Year 2nd Semester

Sl. No.	Name of the Course / Laboratory		No. of Hours per week			Total Credits
			L	T	P	
1	**Professional Elective – IV** i) Quantum Computing ii) Internet of Things iii) Agile software Development iv) Multimedia Tools	PE	3	-	-	3
2	**Professional Elective – V** i) Block Chain Technologies ii) Deep Learning iii) DevOps iv) Virtual and Augmented Reality	PE	3	-	-	3
3	Project	PR	-	-	18	9
	Total :		6	-	18	15

Honors Degree: Artificial Intelligence

Courses Offered

Sl. No.	Year and Sem	Name of the Course / Laboratory	No. of Hours per week			No. of Credits
			L	T	P	
1	II Year – II	Data Science	3	-	-	3
2	Sem	Data Science with R Lab	-	-	4	2
3	III Year – I	Neural Networks	3	-	-	3
4	Sem	Neural Networks & Fuzzy Systems Lab	-	-	4	2
5	III Year – II	Decision Support Systems	3	-	-	3
6	Sem	AI Tools & Techniques Lab	-	-	4	2
7	IV Year – I	Natural Language Processing	3	-		3
8	Sem	Natural Language Processing Lab	-	-	4	2

Open Electives

i)Open Elective – I

Sl. No.	Title of the Subject	Dept. offering the Subject	No.of Periods per week			No.of Credits
			L	T	P	
1	Elements of Civil Engineering (Other than CE)	CE	3	-	-	3
2	Environment Laws and Policies (All branches)	CE	3	-	-	3
3	Electrical Materials	EEE	3	-	-	3
4	Control Systems Engineering (Other than EEE & ECE)	EEE	3	-	-	3
5	Elements of Mechanical Transmission (Other than ME)	ME	3	-	-	3
6	Material Handling Equipment	ME	3	-	-	3
7	Introduction to MPMC (Other than ECE/EEE/CSE/IT)	ECE	3	-	-	3
8	Principles of Communications (other than ECE)	ECE	3	-	-	3
9	Software Engineering (Other than CSE & IT)	CSE	3	-	-	3
10	Ethical Hacking	CSE	3	-	-	3
11	Data communications	IT	3	-	-	3
12	ICT for Development	IT	3	-	-	3

ii) Open Elective – II

Sl. No.	Title of the Subject	Dept. offering the Subject	No.of Periods per week			No.of Credits
			L	T	P	
1	Remote Sensing & GIS (Other than CE)	CE	3	-	-	3
2	Green building technology (All branches)	CE	3	-	-	3
3	Modelling and Simulation of Engineering Systems	EEE	3	-	-	3
4	Power Systems Engineering (Other than EEE)	EEE	3	-	-	3
5	Material Science(Other than ME)	ME	3	-	-	3
6	Renewable Energy Sources (Other than ME)	ME	3	-	-	3
7	Automotive Electronics	ECE	3	-	-	3
8	Introduction to MEMS	ECE	3	-	-	3
9	Operating Systems (Other than CSE & IT)	CSE	3	-	-	3
10	Social Network Analysis	CSE	3	-	-	3
11	Information Theory and Coding	IT	3	-	-	3
12	Open source software	IT	3	-	-	3

iii) Open Elective – III

Sl. No.	Title of the Subject	Dept. offering the Subject	No.of Periods per week			No.of Credits
			L	T	P	
1	Basics of Environmental Engineering (Other than CE)	CE	3	-	-	3
2	Disaster Preparedness, Planning & Management (All branches)	CE	3	-	-	3
3	Electrical and Hybrid Vehicles	EEE	3	-	-	3
4	Instrumentation	EEE	3	-	-	3
5	Green Engineering	ME	3	-	-	3
6	Non Destructive Evaluation (Other than ME)	ME	3	-	-	3
7	Assistive Technologies (other than ECE)	ECE	3	-	-	3
8	Bio-Medical Engineering (other than ECE and EEE)	ECE	3	-	-	3
9	Principles of Data Mining (Other than CSE & IT)	CSE	3	-	-	3
10	Bioinformatics	CSE	3	-	-	3
11	Scripting Languages	IT	3	-	-	3
12	C#.Net	IT	3	-	-	3

PG – M.Tech Course Structure:

i)   Structural Engineering

1st Semester

S. No	Name of the course	L	T	P	No Credits
		No. of Hours per Week			
1	Advanced Structural Analysis	3	-	-	3
2	Theory of Elasticity	3	-	-	3
3	**Elective – I** i) Computational Methods in Structural Engineering ii) Advanced R.C. Design iii) Experimental Stress Analysis	3	-	-	3
4	**Elective – II** i) Theory of Plates and Shells ii) Advancements in Concrete Technology iii) Design of Pre-stressed Concrete Structures	3	-	-	3
5	Advanced Structural Engineering Lab	-	-	4	2
6	Advanced Concrete Lab	-	-	4	2
7	Research Methodology & IPR	3	-	-	3
8	**Audit Course – I :** Constitution of India	2	-	-	-
	Total :	**17**	**-**	**8**	**19**

2nd Semester

Sl. No	Name of the course	L	T	P	No Credits
		No. of Hours per Week			
1	Finite Element Methods in Structural Engineering**	3	-	-	3
2	Structural Dynamics	3	-	-	3
3	**Elective – III** i) Advanced Design of Steel Structures ii) Stability of Structures iii) Design of High – Rise Structures	3	-	-	3
4	**Elective – IV** i) Design of Bridge Structures ii) Repairs and Retrofitting of Structures iii) Ground Improvement Methods	3	-	-	3
5	Computer Applications in Structural Engineering Lab	-	-	4	2
6	Structural Design Laboratory			4	2
7	Mini Project with seminar	-	-	6	3
8	**Audit Course – II :** English for Research Paper writing	2	-	-	-
	Total :	**14**	**-**	**14**	**19**

3rd Semester

Sl. No	Name of the course	No. of Hours per Week			No Credits
		L	T	P	
1	**Elective – V** i) Earthquake Resistant Design of Structures ii) Design of Sub-structures iii) MOOCs	3	-		3
2	**Open Elective**	3	-		3
3	Dissertation Phase – I	-	-	0	10
	Total	**6**	**-**		**16**

4th Semester

Sl. No	Name of the course	No. of Hours per Week			No Credits
		L	T	P	
1	Dissertation Phase – II	**-**	**-**		16
	Total	**-**	**-**		**16**

ii)   Power Electronics and Electric Drives

1st Semester

Sl. No	Name of the course	No. of Hours per Week			No Credits
		L	T	P	
1	Electrical Machine Modeling and Analysis	3	-	-	3
2	Analysis of Power Electronic Converters	3	-	-	3
3	**Elective – I** i. Modern Control Theory ii. Power Quality and Custom Power Devices iii. Programmable Logic Controllers & Applications	3	-	-	3
4	**Elective – II** i. Artificial Intelligence Techniques ii. Renewable Energy Technologies iii. Flexible AC Transmission Systems	3	-	-	3
5	Research Methodology and IPR	3	-	-	3
6	Power Electronics Simulation Laboratory	-	-	4	2
7	Power Converters Laboratory	-	-	4	2
8	**Audit Course – I:** Constitution of India	2	-	-	-
	Total	**17**	**-**	**8**	**19**

2nd Semester

Sl. No	Name of the course	No. of Hours per Week			No Credits
		L	T	P	
1	Switched Mode Power Conversion	3	-	-	3
2	Power Electronic Control of Electrical Drives	3	-	-	3
3	**Elective – III** i. Control & Integration of Renewable Energy Systems ii. Hybrid Electric Vehicles iii. Advanced Digital Control Systems	3	-	-	3
4	**Elective – IV** i. Advanced Digital Signal Processing ii. Applications of Power Converters iii. Microcontrollers	3	-	-	3
5	Electric Drives Simulation Laboratory	-	-	4	2
6	Electric Drives Laboratory	-	-	4	2
7	Mini Project with Seminar	-	-	6	3
	Audit Course – II : English for Research Paper Writing				
	Total	12	-	14	19

3rd Semester

Sl. No	Name of the course	No. of Hours per Week			No Credits
		L	T	P	
1	**Elective – V** i. Digital Signal Processing Controlled Drives ii. Smart Grid Technologies iii. MOOCs*	3	-	-	3
2	**Open Elective**	3	-	-	3
3	Dissertation Phase - I (to be continued and evaluated next semester)	-	-	20	10
	Total	6	-	20	16

*Those who want to go for industrial project can take this course.

4th Semester

Sl. No	Name of the course	No. of Hours per Week			No Credits
		L	T	P	
1	Dissertation Phase-II (continued from III semester)	-	-	32	16
	Total	-	-	32	16

iii) Machine Design

1st Semester

S. No	Name of the course	L	T	P	No. of Credits
		No. of Hours / Week			**No. of Credits**
1	Mechanical Vibrations and Acoustics**	3	-	-	3
2	Advanced Mechanics of Solids	3	-	-	3
3	**Elective – I** i) Analysis and Synthesis of Mechanisms ii) Advanced materials for Design iii) Robotics	3	-	-	3
4	**Elective – II** i) Gear Engineering ii) Advanced Optimization Techniques iii) Rotor Dynamics	3	-	-	3
5	Machine Dynamics Lab	-	-	4	2
6	Advanced Material Testing Lab	-	-	4	2
7	Research Methodology & IPR	3	-	-	3
8	**Audit Course – I:** Constitution of India	2	-	-	-
	Total	17	-	8	19

2nd Semester

S. No	Name of the course	L	T	P	No. of Credits
		No. of Hours / Week			**No. of Credits**
1	Advanced Finite Element Methods **	3	-	-	3
2	Computational Methods in Engineering	3	-	-	3
3	**Elective – III** i) Design for Manufacturing and Assembly ii) Experimental Stress Analysis iii) Additive Manufacturing	3	-	-	3
4	**Elective – IV** i) Signal Analysis and Condition Monitoring ii) Fracture Mechanics iii) Mechatronics	3	-	-	3
5	Modeling and Simulation Lab	-	-	4	2
6	Computational Methods Lab	-	-	4	2
7	Mini Project with seminar	-	-	6	3
8	**Audit Course – II:** English for Research Paper Writing	2	-	-	-
	Total	14	-	10	19

** Project based Course

3rd Semester

Sl. No	Name of the course	No. of Hours / Week			No. of Credits
		L	T	P	
1	**Elective – V** i) Tribology ii) Product Design iii) MOOC s – I (NPTEL/SWAYAM) 12 weeks course related to the program which is not listed in the course structure	3	-	-	3
2	**Open Elective**	3	-	-	3
4	Dissertation Phase – I	-	-	20	10
	Total	**6**	**-**	**20**	**16**

4th Semester

S. No	Name of the course	Hours / Week			No. of Credits
		L	T	P	
1	Dissertation Phase – II	-	-	32	16
	Total	**-**	**-**	**32**	**16**

iv) VLSI Design and Embedded Systems

1st Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	CMOS VLSI Design	3	-	-	3
2	Advanced Microcontrollers	3	-	-	3
3	**Elective – I** i. Testing and testability of VLSI Circuits ii. Advanced Digital Design iii. Digital Signal & Image Processing	3	-	-	3
4	**Elective – II** i. VLSI Signal Processing ii. System Design with Embedded Linux iii. Parallel Processing	3	-	-	3
5	Research Methodology and IPR	3	-	-	3
6	CMOS VLSI Design Lab	-	-	4	2
7	Advanced Microcontrollers Lab	-	-	4	2
8	**Audit Course – I:** Constitution of India	2	-	-	-
	Total	**17**	**-**	**8**	**19**

2nd Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	VLSI System Design	3	-	-	3
2	Embedded System based IoT	3	-	-	3
3	**Elective – III** i Advances in VLSI Design ii. Embedded Computer Architectures iii. SoC Design	3	-	-	3
4	**Elective – IV** i. VLSI Interconnects ii. Communication Buses & Interfaces iii. Advanced Digital Signal Processing	3	-	-	3
5	VLSI System Design Lab	-	-	4	2
6	Embedded Systems & IoT Lab	-	-	4	2
7	Mini Project with Seminar	-	-	6	3
8	**Audit Course – II:** English for Research Paper Writing	2	-	-	-
	Total	14	-	14	19

3rd Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	**Elective – V** i. Low power VLSI Design ii. Network security & Cryptography iii. Memory Technologies iv. MOOCs*	3	-	-	3
2	**Open Elective**	3	-	-	3
3	Dissertation Phase - I (to be continued and evaluated next semester)	-	-	20	10
	Total	6	-	20	16

* Students going for Industrial Project will complete these courses through MOOCs

4th Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	Dissertation Phase-II (continued from III semester)	-	-	32	16
	Total	-	-	32	16

v) Computer Science and Engineering

1st Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	Research Methodologies and IPR	3	-	-	3
2	Advanced Data Structures and Algorithm Analysis	3	-	-	3
3	Data Science	3	-	-	3
4	**Elective – I** i) Digital Image Processing ii) Ad hoc and Sensor Networks iii) Introduction to Intelligent Systems	3	-	-	3
5	**Elective – II** i) Internet of Things ii) Principles of Computer Security iii) Distributed Systems	3	-	-	3
6	Advanced Data Structures and Algorithm Analysis Lab	-	-	4	2
7	Data Science Lab	-	-	4	2
8	**Audit Course – I:** English for Research Paper Writing	-	-	-	-
	Total :	**15**	**-**	**8**	**19**

2nd Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	MEAN Stack Technologies	3	-	-	3
2	Machine Learning	3	-	-	3
3	**Elective – III** i) Blockchain Technology ii) Data Preparation and Analysis iii) Natural Language Processing	3	-	-	3
4	**Elective – IV** i) Cloud Computing ii) Soft Computing Techniques iii) Digital Forensics	3	-	-	3
5	MEAN Stack Technologies Lab	-	-	4	2
6	Machine Learning using Python Lab	-	-	4	2
7	Mini Project with Seminar	-	-	6	3
8	**Audit Course – II:** Constitution of India	-	-	-	-
	Total :	**15**	**-**	**14**	**19**

3ʳᵈ Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	**Elective – V** 1. Deep Learning 2. Recommender Systems 3. MOOCs-1 (NPTEL/SWAYAM) 12 Week Program related to the program which is not listed in the course structure	3	-	-	3
2	**Open Elective**	3	-	-	3
3	Dissertation (Initiated in third semester)	-	-	20	10
	Total :	**6**	**-**	**20**	**16**

4ᵗʰ Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	Dissertation (Carried out in third & fourth semesters)	0	0	32	16
	Total :	**-**	**-**	**32**	**16**

Open Electives

Sl. No.	Title of the Subject	Dept. offering the Subject	No.of Periods per week			No.of Credits
			L	T	P	
1	Sustainable Development	CE	3	-	-	3
2	Cost Management for Engineering Projects	CE	3	-	-	3
3	Green Technology	CE	3	-	-	3
4	Energy Audit, Conservation & Management	EEE	3	-	-	3
5	Courses offered by other departments	ME	3	-	-	3
6	Automotive Electronics (other than ECE)	ECE	3	-	-	3
7	Soft Computing Techniques	CSE	3	-	-	3
8	MOOCs		3	-	-	3

PG – MBA Course Structure:

1ˢᵗ Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	Perspectives of Management	4	-	-	4
2	Managerial Economics	4	-	-	4
3	Accounting for Managers	3	1	-	4
4	Business Communication & Skill Development	3	-	-	3
5	Business Environment and Legislation	4	-	-	4
6	Quantitative Analysis for Business Decisions	2	1	-	3
7	Business Law	3	-	-	3
8	Information Technology Lab for Business Management	-	-	4	2
	Total :	**23**	**2**	**4**	**27**

2nd Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	Financial Management	3	1	-	4
2	Marketing Management	4	-	-	4
3	Human Resource Management	4	-	-	4
4	Production & Operations Management	3	-	-	3
5	Business Research Methods	2	1	-	3
6	International Business	4	-	-	4
7	Organizational Behaviour	4	-	-	4
	Total :	**24**	**2**	**-**	**26**

3rd Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	Business Policy & Strategic Management	3	-	-	3
2	Logistics and Supply Chain Management	4	-	-	4
3	Retail Management	4	-	-	4
4	Business Ethics &Corporate Governance	3	-	-	3
5	Elective Subject –I	3	-	-	3
6	Elective Subject –II	3	-	-	3
7	Elective Subject –III	3	-	-	3
8	Elective Subject –IV	3	-	-	3
	Total :	**26**	**-**	**-**	**26**

4th Semester

Sl. No	Name of the course	No. of Hours per Week			No.of Credits
		L	T	P	
1	Entrepreneurship & Project Management	3	-	-	3
2	Management of Retail Operations	4	-	-	4
3	Elective Subject –I	3	-	-	3
4	Elective Subject –II	3	-	-	3
5	Elective Subject –III	3	-	-	3
6	Elective Subject –IV	3	-	-	3
7	Project Report	-	-	10	5
8	Comprehensive Viva – Voce	-	-	2	1
	Total :	**19**	**-**	**12**	**25**

Electives:

III Semester	IV Semester
Marketing: i) Advertising and Brand Management ii) Consumer Behaviour **Finance:** i) Security Analysis and Portfolio Mgmt. ii) International Financial Management **HR:** i) Human Resources Analytics ii) Industrial Relations and Labour Laws	**Marketing:** i) Marketing of Services ii) Sales and Distribution Management **Finance:** i) Financial Derivatives ii) Financial Institutions and Services **HR:** i) Compensation Management ii) Management of Change and Development

13.3 Any other matter with the permission of the chair.

i) Ratified the substitute subjects for R17 Regulations submitted by the Chair Persons of various Boards of Studies for the academic year 2020-21.

The following are the substitute subjects offered to the IV B.Tech 1st Semester Re-admitted students (R14 to R17) recommended by the various Boards of Studies during the academic year 2020-21.

Branch	Original theory/Lab course as per R17 Curriculum	Substitute Subject offered
CE	Design of Steel Structures (CE2553)	Elements of Mechanical & Electrical Engineering (ME2502)
EEE	Power Electronics Lab(EE2544)	Electrical Systems Simulation Lab (EE2533)
ME	Industrial Engineering and Management (ME2551)	Heat Transfer (ME2540)/Mechanical Vibrations (ME2530)
	Mini Project (ME2563)	Heat Transfer Lab (ME2546)
ECE	Mini Project on Smart Applications (EC2565)	Digital Signal Processing Lab (EC2552)
CSE		-Nil-
IT	Managerial Economics and Financial Analysis (BA2502)	Engineer & Society (EN2502)
	Mini Project (IT2522)	Free and Open Source Software Lab (IT1526)

ii) To review the Semester End Examination results for the academic year 2019-20.

The Academic Council reviewed and ratified the Semester End Examinations results of B.Tech, M.Tech and MBA for the academic year 2019-20.

UG – B.Tech Programs:

I B.Tech 1st Semester (R17) (2019 Admitted) Regular Examinations, December 2019

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Civil Engineering	103	102	56	46	54.37	54.90
Electrical and Electronics Engineering	85	85	54	31	63.53	63.53
Mechanical Engineering	141	138	50	88	35.46	36.23
Electronics and Communication Engineering	255	253	217	36	85.10	85.77
Computer Science and Engineering	257	257	202	55	78.60	78.60
Information Technology	127	126	81	45	63.78	64.29
Overall Pass Percentage	**968**	**961**	**660**	**301**	**68.18**	**68.68**

II B.Tech 1st Semester (R17) (2018 Admitted) Regular Examinations, November 2019

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Civil Engineering	166	159	103	56	62.05	64.78
Electrical and Electronics Engineering	158	153	114	39	72.15	74.51
Mechanical Engineering	178	171	102	69	57.30	59.65
Electronics and Communication Engineering	260	258	175	83	67.31	67.83
Computer Science and Engineering	258	258	239	19	92.64	92.64
Information Technology	125	124	102	22	81.60	82.26
Overall Pass Percentage	**1145**	**1123**	**835**	**288**	**72.93**	**74.35**

III B.Tech 1st Semester (R17) (2017 Admitted) Regular Examinations, November 2019

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Civil Engineering	188	186	156	30	82.98	83.87
Electrical and Electronics Engineering	180	175	134	41	74.44	76.57
Mechanical Engineering	186	181	149	32	80.11	82.32
Electronics and Communication Engineering	280	280	253	27	90.36	90.36
Computer Science and Engineering	252	249	214	35	84.92	85.94
Information Technology	104	102	85	17	81.73	83.33
Overall Pass Percentage	**1190**	**1173**	**991**	**182**	**83.28**	**84.48**

IV B.Tech 1st Semester (R14) (2016 Admitted) Regular Examinations, November 2019

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Civil Engineering	183	183	152	31	83.06	83.06
Electrical and Electronics Engineering	176	174	146	28	82.95	83.91
Mechanical Engineering	201	196	148	48	73.63	75.51
Electronics and Communication Engineering	275	273	251	22	91.27	91.94
Computer Science and Engineering	256	252	237	15	92.58	94.05
Information Technology	103	102	90	12	87.38	88.24
Overall Pass Percentage	**1194**	**1180**	**1024**	**156**	**85.76**	**86.78**

IV B.Tech 2nd Semester (R14) (2016 Admitted) Regular Examinations, September 2020

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Civil Engineering	184	183	153	30	83.15	83.61
Electrical and Electronics Engineering	176	175	165	10	93.75	94.29
Mechanical Engineering	199	198	189	9	94.97	95.45
Electronics and Communication Engineering	272	271	254	17	93.38	93.73
Computer Science and Engineering	254	252	243	9	95.67	96.43
Information Technology	101	101	98	3	97.03	97.03
Overall Pass Percentage	**1186**	**1180**	**1102**	**78**	**92.92**	**93.39**

PG – M.Tech & MBA Programs:

M.Tech 1st Semester (R17) (2019 Admitted) Regular Examinations, February 2020

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Structural Engineering	15	15	13	2	86.67	86.67
Power Electronics and Electric Drives	5	5	3	2	60.00	60.00
Machine Design	7	7	2	5	28.57	28.57
VLSI Design and Embedded Systems	4	4	3	1	75.00	75.00
Computer Science and Engineering	4	4	4	0	100.00	100.00
Overall Pass Percentage	**35**	**35**	**25**	**10**	**71.43**	**71.43**

M.Tech 2nd Semester (R17) (2018 Admitted) Regular Examinations, July 2019

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Structural Engineering	19	19	17	2	89.47	89.47
Power Electronics and Electric Drives	3	3	3	0	100.00	100.00
Machine Design	5	5	5	0	100.00	100.00
Embedded Systems	6	6	4	2	66.67	66.67
Computer Science and Engineering	4	4	4	0	100.00	100.00
Overall Pass Percentage	**37**	**37**	**33**	**4**	**89.19**	**89.19**

M.Tech 3rd Semester (R17) (2018 Admitted) Regular Examinations, November 2019

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Structural Engineering	19	19	16	3	84.21	84.21
Power Electronics and Electric Drives	3	3	3	0	100.00	100.00
Machine Design	5	5	5	0	100.00	100.00
Embedded Systems	6	6	6	0	100.00	100.00
Computer Science and Engineering	4	4	4	0	100.00	100.00
Overall Pass Percentage	**37**	**37**	**34**	**3**	**91.89**	**91.89**

MBA 1st Semester (R17) (2019 Admitted) Regular Examinations, January 2020

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Master of Business Administration	**75**	**73**	**67**	**6**	**89.33**	**91.78**

MBA 3rd Semester (R17) (2018 Admitted) Regular Examinations, November 2019

Subject	Reg.	App.	Passed	Failed	Reg. Pass %	App. Pass %
Master of Business Administration	**79**	**78**	**77**	**1**	**97.47**	**98.72**

R20 Academic Regulations of UG B.Tech programs and PG M.Tech and MBA programs

I) UG – B.Tech Program:

Applicable for the students of B.Tech from the Academic Year 2020-21

1. UG – B.Tech Programs

   i.   Civil Engineering (CE)

   ii.   Electrical and Electronics Engineering (EEE)

   iii. Mechanical Engineering (ME)

   iv. Electronics and Communication Engineering

       1) Electronics and Communication Engineering (ECE)

       2) Internet of Things (IOT)

   v.   Computer Science and Engineering

       1) Computer Science and Engineering (CSE)

       2) Artificial Intelligence and Data Science (AI&DS)

   vi. Information Technology (IT)

2. Duration of the Program

The duration of the program is four academic years consisting of eight semesters. However, a student is permitted to complete the course work of B.Tech program in the stipulated time frame of **EIGHT** years from the date of joining. Students admitted into II year 1st semester of B.Tech program directly, through Lateral Entry (LE), shall have to complete the course work of B.Tech program in the stipulated time frame of **SIX** years from the date of joining.

3. Minimum Instruction Days
Each semester consists of a minimum of ninety instruction days.

4. Program Credits

   i) Each discipline of the B.Tech program is designed to have a total of **160** credits and the student shall have to complete the four year course work and earn all the **160** credits for the award of B.Tech Degree.

   ii) Students joining the B.Tech program into the II year 1st semester directly through Lateral Entry (LE) Scheme shall have to complete the three year course work and earn **120** credits for the award of B.Tech degree.

   iii) Student shall register for a course only once in any semester in the entire program. Later, he shall not register the completed course as open elective or provisional elective.

   iv) Students with no backlogs up to III year 1st semester with CGPA not less than 8.0 may register for two professional elective courses offered in the IV year 2nd semester in advance i.e. one in the III year 2nd semester and another one in the IV year 1st semester so as to have exclusive project work during the IV year 2nd semester.

5. Attendance Regulations

   5.1 A student shall be eligible to appear for the Semester End Examinations if he acquires the attendance with a minimum aggregate of 75% in all the subjects.

   5.2 Condoning of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester will be considered under genuine circumstances such as medical grounds and participation in co-curricular and extra-curricular activities and shall be granted

the required attendance only after the approval from the College Academic Committee. The student should submit application for medical leave along with medical certificate from a registered medical practitioner within three days from reporting to the classwork after the expiry of the Medical Leave. In case of participation in co-curricular and extra-curricular activities either internal or external, students must take prior written permission from the HoD concerned and submit the same along with the certificate of participation from the organizers of the event within three days from the completion of the event. Only such cases will be considered for condoning attendance shortage.

5.3 A student shall be eligible to claim for condonation of attendance shortage for a maximum of two times during the four year (eight semesters) course work of B.Tech / three year (six semesters) course work of B.Tech, Lateral Entry. However, an additional, one time condonation exclusively during the IV Year shall be considered on genuine reasons.

5.4 A student shall not be promoted to the next semester unless he satisfies the attendance requirement of the current semester. He may seek re-admission into the detained semester when offered next, within 2 weeks from the date of the commencement of classwork.

5.5 Shortage of Attendance below 65% in aggregate shall in *NO* case be condoned.

5.6 Students whose shortage of attendance is not condoned in a semester are not eligible to take their end examination of the class and their registration shall stand cancelled.

5.7 A fee stipulated by the college shall be payable towards condonation of attendance.

5.8 A student is required to put up a minimum of 75% of attendance in the mandatory non-credit courses for getting the satisfactory grade.

6. Examinations and Scheme of Evaluation

The assessment of the student's performance in each course will be based on Internal Evaluation and External Evaluation (Semester-End Examination). The performance of a student in each semester shall be evaluated subject–wise with a maximum of 100 marks. For all the courses the distribution shall be 30 marks for Internal Evaluation and 70 marks for the End Examinations.

6.1 Theory / Electives Courses(2 or 3 or 4 credits):

Each theory course shall be evaluated for a total of 100 marks, consisting of 30 marks for internal assessment and 70 marks for semester end examination.

Internal Assessment:

i) Of 30 marks for internal assessment, 10 marks are for continuous assessment in the form of online quiz and 20 marks are based on two mid-term examinations. In a semester, the first mid-term examination shall be from the first two and a half units of syllabus and second mid-term from the last two and a half units of syllabus.

ii) Two online quizzes, one before the first mid-term examination from first one and a half units of syllabus and another before the second mid-term examination from the second half of the III unit and the IV unit of syllabus, each for 10 marks, with a duration of 30 minutes, are conducted in a semester and the average marks of the two tests are taken as the marks for the continuous evaluation process.

iii) Each mid-term examination is conducted for 30 marks with a duration of two hours. Each mid-term examination consists of three questions of descriptive type, one from each unit of the syllabus and each for 10 Marks.

iv) Sum of the 75% marks of better scored mid-term examination and 25% marks of less scored mid-term examination are scaled down to 20 marks.

v) For the subjects such as Engineering Graphics, Engineering Drawing, Building Planning and Drawing, Estimation, Costing & Valuation, Design & Drawing of Steel Structures etc., the distribution of 30 marks for internal evaluation shall be 10 marks for day-to-day work, and 20 marks based on two mid-term examinations. Each mid-term examination is conducted for 30

marks with two hours duration. Sum of the 75% marks of better scored mid-term examination and 25% marks of less scored mid-term examination are scaled down to 20 marks.

vi) For subjects like Functional English and Professional Communication, the pattern of mid-term examination is given along with the syllabus of the respective subject.

vii) For the integrated course with theory and laboratory, the distribution of 30 marks for internal evaluation shall be 20 marks for theory, based on two mid- term examinations and 10 marks for laboratory. Each mid-term examination is conducted for 30 marks with two hours duration. The pattern of mid-term examination is same as the pattern of regular theory course. Sum of the 75% marks of better scored mid-term examination and 25% marks of less scored mid-term examination are scaled down to 20 marks. Of 10 marks for laboratory, 5 marks for the day-to-day performance and 5 marks for the semester end internal examination.

viii) For the project based theory course, the distribution of 30 marks for internal evaluation shall be 20 marks for theory, based on two mid- term examinations and 10 marks for project. The pattern of mid-term examination is same as the pattern of regular theory course. Sum of the 75% marks of better scored mid-term examination and 25% marks of less scored mid-term examination are scaled down to 20 marks.

Project work:
➢ There shall be a batch which consists of four/five students and different project works/assignments will be given to different batches of students.
➢ There shall be two reviews during the semester on the progress of the project work by the departmental review committee consisting of a faculty handling the section and one subject expert appointed by the Head of the department.
➢ Each batch shall submit the project work/assignment in the form of report and shall make an oral presentation before the departmental review committee at the end of a semester.
➢ Final marks shall be awarded to each student based on his/her performance in the oral presentation by the department review committee.

External Assessment:

i) Semester End Examination will be conducted for 70 marks consisting of five internal choice questions (i.e "either" "or" choice), carrying 14 marks each. There will be two questions from each unit and the student should answer either of the two questions.

ii) For the integrated course, the pattern of examination is same as above. There will not be any external assessment for laboratory component.

iii) For the project based theory course, the pattern of examination is same as above. There will be no external assessment for project component.

iv) For subjects like Functional English, Professional Communication, Building Planning & Drawing, etc, the pattern of semester end examination is given along with the syllabus of the respective subject.

6.2 Laboratory Course (1 or 2 credits):

i) For practical courses the distribution shall be 30 marks for Internal Evaluation and 70 marks for the semester end examinations. There shall be continuous evaluation by the internal subject teacher during the semester for 30 internal marks of which 20 marks shall be for day-to-day performance (15 marks for day-to-day evaluation and 5 marks for Record) and 10 marks shall be evaluated by conducting an internal laboratory test towards the end of a semester.

ii) Semester end examination shall be conducted for 70 marks by the teacher concerned and an external examiner.

6.3 Mandatory Non-Credit Courses:

A student is required to take up three Non-Credit courses, viz. Constitution of India, Sports & Games/ Cultural and Fine Arts/Yoga/Self Defense/NSS, one in the I year I /II semester and the other two in the II year I semester and II semester respectively. Marks are awarded based on the day-to-day participation and performance in the activities organized under each event. A student is required to score 40 marks out of 100 marks despite putting up a minimum of 75% attendance to be declared satisfactory in each mandatory non-credit course. The B.Tech degree shall only be awarded if a student gets satisfactory grade in each of the three mandatory non-credit courses besides acquiring 160 (120 for Lateral Entry) credits of the B.Tech degree course.

A student whose shortage of attendance is condoned in the case of credit courses in that semester shall also be eligible for condoning shortage of attendance up to 10% in the case of mandatory non-credit courses also.

A student has to repeat the course whenever it is offered; if he does not get satisfactory grade or does not fulfill the attendance requirements in each non-credit course for getting the degree awarded.

6.4 Internship / Industrial Training/ Practical Training:

Internship / Industrial Training / Practical training shall be evaluated for a total of 100 marks. Of 100 marks, 30 marks shall be awarded by an internal committee consisting of two faculty members based on the presentation given and work carried out by a student and the remaining 70 marks are for the final Viva–Voce examination conducted by the committee consisting of an External Examiner and the Head of the Department/Senior faculty in the department at the end of the IV B.Tech 1st semester.

6.5 Mini Project / Socially Relevant Project:

Mini Project/Socially Relevant Project shall be evaluated for a total of 100 marks.

i)   Of 100 marks, 30 marks shall be awarded by the project supervisor based on student's involvement in carrying out the project and the remaining 70 marks are based on presentation and viva-voce before a committee consisting of supervisor and a senior faculty of the department.

ii) There will be no external assessment for mini project / Socially Relevant Project.

6.6 MOOCS

➢ A Student shall register for MOOCs offered by NPTEL, CISCO, MICROSOFT and SAYLOR or any other agency with a prior approval from the departmental committee.

➢ The courses should be other than those offered under regular curriculum and are to be approved by the Departmental Committee consisting of the Head of the department, mentor and one/two senior faculty members before the commencement of each semester.

➢ The duration of the course shall be 8 - 12 weeks/50-70 hrs (maximum).

➢ The schedule of the course must be in line with the academic schedule of that semester.

➢ The required credits shall be awarded on submission of certificate from the approved agency.

6.7 Project work:

i)   The final project work shall be carried out during the IV year 2nd semester and will be evaluated for 100 marks.

ii) Of 100 marks, 30 marks shall be for Internal Evaluation and 70 marks for the project evaluation and semester end viva-voce examination.

iii) Each student needs to give two seminars on the topic of his project, and each seminar is evaluated for 15 marks by a committee consisting of a supervisor and a senior faculty of the department. The sum of the mark of two seminars is taken as internal marks for 30.

iv) The project evaluation and semester end Viva–Voce shall be conducted by the committee consisting of an External Examiner, Head of the Department and the supervisor of the project. The evaluation of project work shall be conducted at the end of the fourth year second semester.

6.8 Induction Program

The Student Induction Program is a mandatory non-credit program. Induction program shall be conducted for three weeks during zero semester in the areas of Physical Activity, Creative Arts and Culture, Mentoring & Universal Human Values, Familiarization with College, Dept./Branch, Literary Activity, Proficiency Modules, Lectures & Workshops by Eminent People and Visits in Local Area. A student is required to get a minimum of 75% attendance during the program and a satisfactory grade will be given to the student if he/she satisfies the attendance requirement.

7. Criteria for Passing a Course and Award of Grades:
7.1 Criteria for Passing a Course:

i) A candidate shall be declared to have passed in individual theory / integrated theory and laboratory / project based theory / drawing course, etc., if he/she secures a minimum of 40% aggregate marks (internal & semester end examination marks put together), subject to securing a minimum of 35% marks in the semester end examination.

ii) A candidate shall be declared to have passed in individual laboratory/project / mini project / industrial internship / practical training course if he secures a minimum of 50% aggregate marks (internal & semester end examination marks put together), subject to securing a minimum of 40% marks in the semester end examination.

iii) On passing a course of a program, the student shall earn the credits assigned to that course.

7.2 Method of Awarding Letter Grade and Grade Points for a Course:

A letter grade and grade points will be awarded to a student in each course based on his/her performance, as per the grading system given below.

Theory/ Drawing / Elective / Integrated/Project Based Course (%)	Laboratory/ Industrial / Practical Training / Mini Project / Project work (%)	Grade Points	Letter Grade
≥ 90	≥ 90	10	O (Outstanding)
≥ 80 & < 90	≥ 80 & < 90	9	A+ (Excellent)
≥ 70 & < 80	≥ 70 & < 80	8	A (Very Good)
≥ 60 & < 70	≥ 60 & < 70	7	B+ (Good)
≥ 50 & < 60	≥ 50 & < 60	6	B (Above Average)
≥ 40 & < 50	-	5	C (Average)
< 40	< 50	0	F (Fail)

7.3 Calculation of Semester Grade Point Average (SGPA)* for semester:

The performance of each student at the end of the each semester is indicated in terms of SGPA. The SGPA is calculated as given below:

$$\textbf{SGPA} = \frac{\sum (CR \, X \, GP)}{\sum CR} \quad \text{for each semester.}$$

where CR = Credits of a course

GP = Grade Points awarded for a course

*   SGPA is calculated for a candidate who passed all the courses in that semester.

    Illustration of SGPA: Let us assume there are 6 subjects in a semester. The grades obtained are as follows:

Course	Credit(CR)	Grade Point(GP)	CR x GP
Subject 1	3	8	24
Subject 2	2	9	18
Subject 3	4	7	28
Subject 4	3	6	18
Subject 5	3	9	27
	CR=15		CRxGP=115

$$SGPA = \frac{\sum CRxGP}{\sum CR} = \frac{115}{15} = 7.67$$

7.4   Calculation of Cumulative Grade Point Average (CGPA) for Entire Program:

The CGPA is calculated as given below:

$$CGPA = \frac{\sum (CR \, X \, GP)}{\sum CR} \quad \text{for entire program.}$$

where CR = Credits of a course

GP = Grade points awarded for a course

Illustration of CGPA:

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
Credits:15	Credits:22	Credits:24	Credits:22	Credits:23	Credits:21	Credits:20	Credits:20
SGPA:7.67	SGPA:7.86	SGPA:7.87	SGPA:8.67	SGPA:8.78	SGPA:8.50	SGPA:8.60	SGPA:9.00

$$CGPA = \frac{15x7.67 + 22x7.86 + 24x7.87 + 22x8.67 + 23x8.78 + 21x8.5 + 20x8.6 + 20x9.0}{15 + 22 + 24 + 22 + 23 + 21 + 20 + 20} = 8.38$$

7.5   Award of Division:

After satisfying the requirements prescribed for the completion of the program, the student shall be eligible for the award of B. Tech Degree and shall be placed in one of the following grades:

CGPA	Class
≥ 7.5	First Class With Distinction*
≥ 6.5 & < 7.5	First Class
≥ 5.5 & < 6.5	Second Class
≥ 5.0 & < 5.5	Pass Class

* CGPA ≥ 7.5 will be awarded first class with distinction provided the student must have fulfilled all the program requirements in four (4) years duration.

7.6   Eligibility for Award of B.Tech Degree:

A student will be declared eligible for the award of the B. Tech. Degree if he fulfills the following academic regulations.

i)   4 Year B.Tech Course:

(a)   Pursued a course of study for not less than four academic years and not more than eight academic years.

(b)   Registered for prescribed **160** credits and secured **160** credits.

(c) Students, who fail to complete their Four years Course of study within Eight years or fail to acquire the **160** Credits for the award of the degree within eight academic years from the year of the admission shall forfeit their seat in B. Tech course and their admission shall stand cancelled.

ii) 3 Year B.Tech Course under Lateral Entry:

(a) Pursued a course of study for not less than three academic years and not more than six academic years.

(b) Registered for prescribed **120** credits and secured **120** credits.

(c) Students, who fail to complete their Three years Course of study within Six years or fail to acquire **120** Credits for the award of the degree within six academic years from the year of their admission shall forfeit their seat in B. Tech course and their admission shall stand cancelled.

7.7 Consolidated Grade Card

A consolidated grade card containing credits & grades obtained by the candidate will be issued after completion of the Four- year/Three- year B.Tech program.

8. Supplementary Examinations

i) Supplementary examinations will be conducted twice in a year at the end of odd and even semesters.

ii) Semester end supplementary examinations shall be conducted till the next regulation comes into force for that semester, after the conduction of the last set of regular examinations under the present regulation.

iii) Thereafter, supplementary examinations will be conducted in the equivalent courses as decided by the Board of Studies concerned.

9. Conditions for Promotion

i) A student shall be eligible for promotion to next Semester of B.Tech program, if he satisfies the conditions as stipulated in Regulation 5.

ii) The following academic requirements have to be satisfied in addition to the attendance requirements mentioned in Regulation 5 for promotion into the III Year I semester and the IV year I semester.

a) 4 Year B.Tech Program:

i) A student shall be promoted from the II year to the III year only if he acquires the academic requirement of a minimum of 50% credits up to the second year second semester as shown below.
1. Two regular and two supplementary examinations of I year I semester,
2. Two Regular and one supplementary examinations of I year II semester,
3. One regular and one supplementary examinations of II year I semester
4. One regular examination of II year II semester,

irrespective of whether the candidate takes the examination or not.

ii) A student shall be promoted from the III year to the IV year only if he acquires the academic requirement of a minimum of 50% of credits upto third year second semester as shown below.

1. Three Regular and three supplementary examinations of I year I semester,
2. Three Regular and two supplementary examinations of I year II semester,
3. Two Regular and two supplementary examinations of II year I semester,
4. Two Regular and one supplementary examinations of II Year II semester,
5. One Regular and one supplementary examinations of III Year I semester,
6. One regular examination of III Year II semester,

irrespective of whether the candidate takes the examination or not.

b) 3 Year B.Tech Program under Lateral Entry Scheme:

i) A student shall be promoted from the III to the IV year only if he acquires the academic requirement of a minimum of 50% credits up to third year second semester as shown below.

1. Two regular and two supplementary examinations of II year I semester,
2. Two Regular and one supplementary examinations of II year II semester,
3. One regular and one supplementary examinations of III year I semester
4. One regular examination of III year II semester,

irrespective of whether the candidate takes the examination or not.

10. Revaluation

i) Students can submit the applications for revaluation, along with the prescribed fee receipt for revaluation of his answer script(s) of theory course(s) as per the notification issued by the Controller of Examinations.

ii) The Controller of Examinations shall arrange for revaluation of such answer script(s).

iii) An examiner, other than the first examiner, shall revaluate the answer script(s).

iv) If the variation in marks of two evaluations is less than 15% of total marks, the best mark of two evaluations shall be taken into consideration.

v) If the variation in marks of two evaluations is more than 15% of total marks, there shall be a third evaluation by an examiner other than the first two examiners. The best marks of two evaluations (which are nearer) shall be taken into consideration.

11. Readmission Criteria

i) A candidate, who is detained in a semester due to lack of attendance has to obtain written permission from the Principal for readmission into the same semester after duly fulfilling the required norms stipulated by the college and by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs. 1,000/-.

ii) A candidate, who is not promoted either to the III year or to the IV year due to lack of required credits can seek admission into III / IV year in subsequent years after obtaining the required credits as stipulated in regulation 12 by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs. 1,000/-.

12. Break in Study

Student, who discontinues the studies for what-so-ever reason, can get readmission into appropriate semester of B.Tech program only with the prior permission from the Principal of the College, provided such candidate shall follow the transitory regulations applicable to the batch he joins. An administrative fee of Rs.2,000/- per each year of break in study in addition to the prescribed tuition and special fees should be paid by the candidate to condone his break in study.

13. Transitory Regulations

When a student is detained due to lack of credits or shortage of attendance, he/she may be readmitted into the same semester in which he/she has been detained. However, the academic regulations under which the detained student was first admitted shall continue to be applicable to him/her. The student shall be required to do all the courses in the curriculum prescribed for the batch of students in which he/she joins subsequently. However, exemption will be given to those candidates who have already passed such courses in the earlier semester(s) he/she was originally admitted into and substitute subjects are offered in place of them as decided by the Board of Studies. Additional courses may be given to obtain the prescribed number of credits for the award of degree as per the regulations in which he/she was first admitted.

Transfer candidates (from an autonomous college affiliated to JNTUK):

A student who has secured the required credits up to previous semesters as per the regulations of other autonomous institutions shall only be permitted to be transferred to this college. A student who is transferred from the other autonomous colleges to this college in second year first semester or subsequent semesters shall join with the autonomous batch in the appropriate semester. Such candidates shall be required to pass in all the courses in the program prescribed by the Board of Studies concerned for that batch of students from that semester onwards to be eligible for the award of degree. However, exemption will be given in the courses of the semester(s) of the batch which he had passed earlier and substitute subjects are offered in their place as decided by the Board of Studies. The total number of credits to be secured for the award of the degree will be the sum of the credits up to previous semester as per the regulations of the college from which he is transferred and the credits prescribed for the semester in which a candidate joined after transfer and subsequent semesters under the autonomous stream. The class will be awarded based on the academic performance of a student in the autonomous pattern.

14. Withholding of Results

If the student has not paid the dues, if any, to the College or if any case of indiscipline is pending against him, the result of the student will be withheld. His degree will also be withheld in such cases.

15. Malpractices

i) The Principal shall refer the cases of malpractices in internal assessment tests and semester end examinations to a malpractice enquiry committee constituted by him for the purpose. Such committee shall follow the approved levels of punishment. The Principal shall take necessary action against the erring students based on the recommendations of the committee.

ii) Any action by the candidate trying to get undue advantage in the performance or trying to help another, or derive the same through unfair means is punishable according to the provisions contained hereunder.

Malpractice Provisions:

Sl. No.	Nature of Malpractices / Improper conduct	Punishment
1 (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination.)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through Cell phones with any candidates or persons in or outside the exam hall in respect of any matter.	Expulsion of all the candidates involved from the examination hall and cancellation of the performance in that subject only. In case of an outsider, he will be handed over to the police and a case is registered against him.
2	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate

	form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The hall ticket of the candidate shall be cancelled.
3	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from the examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for the examinations of the remaining subjects of that semester. The candidate is also debarred for two consecutive semesters. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the impostor is an outsider, he will be handed over to the police and a case is registered against him.
4	Smuggles in the Answer book or takes out or arranges to send out the question paper during the examination or answer book during or after the examination.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of performance in that subject.
6	Refuses to obey the orders of the Chief Superintendent /Asst.-Superintendent/ any officer on duty or misbehaves or creates disturbance of any kind in or around the examination hall or organizes a walkout or instigates others to walkout or threatens the officer-in-charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by	In case of students of the college, they shall be expelled from the examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.

	signs or by visible representation, assaults the Officer-in-charge or any person on duty in or outside the examination hall of any of his relations or indulges in any other act of misconduct or mischief which results in damage to or destruction of property in the examination hall or any part of the college campus or engages in any other act which in the opinion of the Officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	
7	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidate is also debarred and forfeits the seat.
9	If student of the college who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the college will be handed over to the police and a police case is registered against them.
10	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations

		of the subjects of that semester.
11	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester examinations.
12	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the Chief Superintendent of Examinations for future action towards suitable punishment.	

Malpractices identified at spot centre during valuation

The following procedure is to be followed in the case of malpractice cases detected during valuation, scrutiny etc. at spot centre.

I.   A notice is to be served to the candidate(s) involved **(i)** through the Principal of the college, **(ii)** to the candidate(s) to his college address and **(iii)** to the candidate(s) to his permanent address regarding the malpractice.

II. A committee consisting of the following is to be constituted at spot centre to process such malpractice cases and the recommendations of the malpractice committee are to be sent to the Chief Controller of Examinations.

   1. Principal   Chairman
   2. Vice Principal - Academics   Member
   3. Chief examiner of that subject   Member
   4. Controller of Examinations   Convener

iii) The involvement of the staff, who are in-charge of conducting examinations, valuing examination papers and preparing / keeping records of documents related to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned at the examination shall be viewed seriously and appropriate disciplinary action will be taken after thorough enquiry.

16. Other Matters

i)   Physically challenged candidates who have availed additional examination time and a scribe during their Intermediate/EAMCET examinations will be given similar concessions on production of relevant proof/documents. Students who are suffering from contagious diseases are not allowed to appear either for internal or semester end examinations.

ii) The students who participated in coaching / tournaments held at State / National / International levels through University / Indian Olympic Association during semester end external examination period will be promoted to subsequent semesters as per the guidelines of University Grants Commission Letter No. F.1-5/88 (SPE/PES), dated 18-08-1994.

iii) The Principal shall deal in an appropriate manner with any academic problem which is not covered under these rules and regulations, in consultation with the Heads of the Departments and subsequently such actions shall be placed before the Academic Council for ratification. Any emergency modification of regulation, approved in the meetings of the Heads of the Departments shall be reported to the Academic Council for ratification.

17. General

i)   The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.

ii) The academic regulations should be read as a whole for the purpose of any interpretation.

iii) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.

iv) Wherever the word he, him or his occurs, it will also include she, her and hers.

* * *

II) PG – M.Tech Program:

Applicable for the students of M.Tech from the Academic Year 2020-21

1. PG – M.Tech Programs:

The following M.Tech Programs are offered at present
1. Structural Engineering (CE)
2. Power Electronics and Electric Drives (EEE)
3. Machine Design (ME)
4. VLSI Design and Embedded Systems (ECE)
5. Computer Science and Engineering (CSE)

2. Duration of the Program

The duration of the program is **TWO** academic years consisting of four semesters. However, a student is permitted to complete the course work of M.Tech program in the stipulated time frame of **FOUR** academic years from the date of joining.

3. Minimum Instruction Days

Each semester consists of a minimum of ninety instruction days.

4 Program Credits

Each specialization of the M.Tech programs is designed to have a total of 70 credits and the student shall have to complete the two year course work and earn all the 70 credits for the award of M.Tech Degree.

5. Attendance Regulations

5.1 A student shall be eligible to appear for Semester End Examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.

5.2 Condoning of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester will be considered for genuine reasons such as medical grounds and participation in co-curricular and extra-curricular activities and shall be granted only after approval by the College Academic Committee. Student should submit application for medical leave along with medical certificate from a registered medical practitioner within three days from reporting to the class work after the expiry of the medical leave. In case of participation in co-curricular and extra-curricular activities, either in the college or other colleges, students must take prior written permission from HoD concerned and should also submit the certificate of participation from the organizer of the event within three days after the completion of the event. Only such cases will be considered for condoning attendance shortage.

5.3 A student shall be eligible to claim for condonation of attendance shortage only once during the two years (four semesters) course work.

5.4 A student will not be promoted to the next semester unless he satisfies the attendance requirement of the current semester. He may seek re-admission for that semester when offered next.

5.5 Shortage of Attendance below 65% in aggregate shall in *NO* case be condoned.

5.6 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examination of that semester and their registration shall stand cancelled.

5.7 A fee stipulated by the college shall be payable towards condoning attendance shortage.

5.8 A student is required to put up a minimum of 75% of attendance in the mandatory non-credit courses for getting the satisfactory grade.

6. Examinations and Scheme of Evaluation

6.1 Theory Courses:

Each theory course shall be evaluated for a total of 100 marks, consisting of 30 marks for internal assessment and 70 marks for semester end examination.

i) Of 30 marks for internal assessment, 10 marks are for continuous assessment in the form of two assignments and 20 marks are based on two mid-term examinations.

ii) Each assignment carries 10 marks and the average of two assignments shall be taken as the marks for continuous assessment.

iii) Each mid-term examination is conducted for 30 marks with two hours duration. Each mid-term examination consists of three questions, each for 10 marks. All the questions need to be answered.

iv) Sum of the 75% marks of better scored mid-term examination and 25% marks of less scored mid-term examination are scaled down to 20 marks.

v) For the project based theory course, the distribution of 30 marks for internal evaluation shall be 20 marks for theory, based on two mid-term examinations and 10 marks for project. Each mid-term examination is conducted for 30 marks with two hours duration. Each mid-term examination consists of two questions, each for 15 marks, with internal choice. All the questions need to be answered. Sum of the 75% marks of better scored mid-term examination and 25% marks of less scored mid-term examination are scaled down for 20 marks.

External Assessment

i) Semester End Examination will be conducted for 70 marks consisting of five internal choice questions(i.e "either" "or" choice), carrying 14 marks each. There will be two questions from each unit and the student should answer either of the two questions.

ii) For the project based theory course, the pattern of semester end examination is same as above. There will be no external assessment for project component.

6.2 Laboratory Course:

i) For practical subjects the distribution shall be 30 marks for Internal Evaluation and 70 marks for the End-Examinations. There shall be continuous evaluation by the internal subject teacher during the semester for 30 internal marks. Of the 30 marks for internal, 20 marks shall be for day-to-day performance (15 marks for day-to-day evaluation and 5 marks for Record) and 10 marks shall be evaluated by conducting an internal laboratory test towards the end of semester.

ii) Semester end examination shall be conducted by an internal examiner and an external examiner for 70 marks.

6.3 Mini Project with Seminar:

Mini Project with seminar shall be evaluated for a total of 100 marks.

iii) Of 100 marks, 30 marks shall be awarded by the project supervisor based on student's involvement in carrying out the project and the remaining 70 marks are based on presentation and viva-voce before a committee consisting of supervisor, head of the department and a senior faculty of the department.

iv) There will be no external assessment for mini project.

6.4 Mandatory Non-Credit Courses:

A student is required to take up two Non-Credit course viz. Constitution of India, English for Research Paper writing, one in I semester and the other in II semester. Marks are awarded based on the day-to-day performance in the seminars organized under each course A student is

required to score 40 marks out of 100 marks despite putting up a minimum of 75% attendance to be declared satisfactory in each mandatory non-credit course. The M.Tech degree shall only be awarded if a student gets satisfactory grade in each of the two mandatory non-credit courses and besides acquiring 70 credits of the M.Tech degree course.

A student whose shortage of attendance is condoned in the case of credit courses in that semester shall also be eligible for condoning shortage of attendance up to 10% in the case of mandatory non-credit courses also.

A student has to repeat the course whenever it is offered, if he does not get satisfactory grade or not fulfilling the attendance requirements in each non-credit course for getting the degree awarded.

6.5 MOOCS

➢ A Student shall register for MOOCs offered by NPTEL, CISCO, MICROSOFT and SAYLOR or any other agency with prior approval of departmental committee.

➢ The courses should be other than those offered under regular curriculum and are to be approved by the Departmental Committee consisting of the head of the department, mentor and one/two senior faculty members before the commencement of each semester.

➢ The duration of the course shall be 8 - 12 weeks/50-70 hrs (maximum).

➢ The schedule of the course must be in line with the academic schedule of that semester.

➢ The required credits shall be awarded on submission of certificate from the approved agency.

6.6 Project work:

Every candidate shall be required to submit a dissertation on a topic approved by the Project Review Committee.

i) A Project Review Committee (PRC) shall be constituted for each specialization with Head of the Department / a Senior Faculty as Chairman and two other senior faculty members.

ii) Registration of Project Work: A candidate who has been promoted to 3rd semester shall be eligible to register for the project work.

iii) The eligible candidate can choose his project supervisor and submit the title, objective, abstract and plan of action of the proposed project work to the department for approval by the PRC. The candidate whose proposal is approved by the PRC shall register for the project work. The minimum duration of project work will be 36 weeks from the date of registration.

iv) If a candidate wishes to change his supervisor or topic of the project, he can do so with the approval of the PRC. In case of such changes, the candidate has to register afresh.

v) There shall be three reviews on the progress of the project work by the PRC with an interval of 12 weeks. The candidate needs to submit a report on the progress of his work and present it before the PRC for assessment. The PRC may suggest for an extension of date of submission of dissertation if the progress of work is not satisfactory or absent himself for the review.

vi) A candidate who has passed all the theory, laboratory, seminar and term paper examinations and shown satisfactory progress of project work is permitted to submit the dissertation after 36 weeks from the date of registration.

vii) If a candidate fails to submit the dissertation by the end of the 4th semester, he has to take the permission for an extension by paying the semester(s) tuition fee.

viii) Three copies of the Project Thesis certified by the supervisor shall be submitted to the Department.

ix) Project evaluation and Viva-Voce examination is conducted at the end of 4th semester by a committee consisting of Project Supervisor, senior faculty of the department, HoD and an

External Examiner nominated by the Chief Controller of Examinations out of a panel of three examiners suggested by the department.

The following grades are awarded for the project work:
 i. Excellent
 ii. Very Good
 iii. Good
 iv. Satisfactory
 v. Unsatisfactory

The Grade "unsatisfactory" is treated as Fail. Failed Students should take supplementary examination after making required modifications, if any, in the dissertation with a minimum gap of 8 weeks by paying the required examination fee.

7. Criteria for Passing a Course and Award of Grades:

7.1 Criteria for Passing a Course:

i) A candidate shall be declared to have passed in individual theory / laboratory course, if he secures a minimum of 50% aggregate marks (internal & semester end examination marks put together), subject to securing a minimum of 40% marks in the semester end examination.

ii) The candidate shall be declared to have passed in Mini Projec with Seminar if he secures 50% marks.

iii) The candidate shall be declared to have successfully completed the project work if he secures a minimum of 'satisfactory' grade in the project evaluation and viva-voce examination.

iv) On passing a course of a program, the student shall earn assigned credits in that course.

7.2 Method of Awarding Letter Grades and Grade Points for a Course:

A letter grade and grade points will be awarded to a student in each course based on his performance as per the grading system given below.

Theory/ Elective / Laboratory/ Seminar / Term Paper/ Project Dissertation (%)	Grade Points	Letter Grade
≥ 90	10	O (Outstanding)
≥ 80 & < 90	9	A+ (Excellent)
≥ 70 & < 80	8	A (Very Good)
≥ 60 & < 70	7	B+ (Good)
≥ 50 & < 60	6	B (Above Average)
< 50	0	F (Fail)

7.3 Calculation of Semester Grade Point Average (SGPA)* for semester:

The performance of a student at the end of the each semester is indicated in terms of SGPA. The SGPA is calculated as given below:

$$\textbf{SGPA} = \frac{\sum (CR \times GP)}{\sum CR} \quad \text{for each semester.}$$

where CR = Credits of a course

GP = Grade Points awarded for a course

* SGPA is calculated for a candidate who passed all the courses in that semester.

7.4   Eligibility for Award of M.Tech Degree:

A student will be declared eligible for the award of the M. Tech. Degree if he fulfills the following academic regulations.

(a)   Pursued a course of study for not less than two academic years and not more than four academic years.

(b)   Registered for prescribed **70** credits and secured **70** credits.

(c)   Students, who fail to complete their Two years Course of study within Four years or fail to acquire the prescribed **70** Credits for the award of the degree within four academic years from the year of their admission shall forfeit their seat in M. Tech course and their admission shall stand cancelled.

7.5   Calculation of Cumulative Grade Point Average (CGPA)* for Entire Program:

The CGPA is calculated as given below:

$$\textbf{CGPA} = \frac{\sum (CR \, X \, GP)}{\sum CR} \quad \text{for entire program.}$$

where CR = Credits of a course

GP = Grade points awarded for a course

* CGPA is calculated for a candidate who passed all the prescribed courses excluding project work.

7.6   Award of Division:

After satisfying the requirements prescribed for the completion of the program, the student shall be eligible for the award of M. Tech Degree and shall be placed in one of the following class:

CGPA	Class
≥ 7.5	First Class with Distinction*
≥ 6.5 & < 7.5	First Class
≥ 6.0 & < 6.5	Second Class

* CGPA ≥ 7.5 will be awarded first class with distinction provided the student must have fulfilled all the program requirements in two (2) years duration.

8.   Supplementary Examinations

i)   Supplementary examinations will be conducted once in a year along with regular examinations.

ii)   Semester end supplementary examinations shall be conducted till next regulation comes into force for that semester after the conduct of the last set of regular examinations under the present regulation.

iii)   Thereafter supplementary examinations will be conducted in the equivalent courses as decided by the Board of Studies concerned.

9.   Challenge Valuation

Challenge valuation of failed or passed subjects shall be performed as per the following norms.

➢ Students can submit the application for challenge valuation, along with the prescribed fee receipt for evaluation of his answer script(s) of theory course(s) as per the notification issued by the Controller of Examinations.

➢ The Controller of Examinations shall arrange for challenge valuation of such answer script(s).

- The challenge valuation will be carried out by a three member committee comprising an external subject expert nominated by the Chief Controller of Examinations, the internal subject expert and the BoS Chairman.

- After the challenge valuation, if the grade is improved or there is a change in the status i.e., fail to pass, the improved grade shall be notified, otherwise, the previous grade will remain.

10. Readmission Criteria

A candidate, who is detained in a semester due to lack of attendance has to obtain written permission from the Principal for readmission into the same semester after duly fulfilling the required norms stipulated by the college and by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs. 1,000/-.

11. Break in Study

Student, who discontinues the studies for what-so-ever reason, can get readmission into appropriate semester of M.Tech program only with the prior permission of the Principal of the College, provided such candidate shall follow the transitory regulations applicable to the batch he joins. An administrative fee of Rs.2,000/- per each year of break in study in addition to the prescribed tuition and special fees shall be paid by the candidate to condone his break in study.

12. Transitory Regulations

When a student is detained due to shortage of attendance, he/she may be readmitted into the same semester in which he/she has been detained. However, the academic regulations under which the detained student was first admitted shall continue to be applicable to him/her. A candidate, who is detained in a semester, on readmission shall be required to do all the courses in the curriculum prescribed for the batch of students in which the student joins subsequently. However, exemption will be given to those candidates who have already passed such courses in the earlier semester(s) he was originally admitted into and he will be offered substitute subjects in place of them as decided by the Board of Studies. However, the decision of the Board of Studies will be final.

13. Withholding of Results

If the student has not paid the dues, if any, to the College or if any case of indiscipline is pending against him, the result of the student will be withheld. His degree will be withheld in such cases.

14. Malpractices

i) The Principal shall refer the cases of malpractices in internal assessment tests and semester end examinations to a malpractice enquiry committee constituted by him for the purpose. Such committee shall follow the approved levels of punishment. The Principal shall take necessary action against the erring students based on the recommendations of the committee.

ii) Any action by the candidate trying to get undue advantage in the performance or trying to help another, or derive the same through unfair means is punishable according to the provisions contained hereunder.

Malpractice Provisions:

Sl. No.	Nature of Malpractices / Improper conduct	Punishment
1 (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of	Expulsion from the examination hall and cancellation of the performance in that subject only.

	(material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination.)	
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through Cell phones with any candidates or persons in or outside the exam hall in respect of any matter.	Expulsion of all the candidates involved from the examination hall and cancellation of the performance in that subject only. In case of an outsider, he will be handed over to the police and a case will be registered against him.
2	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester / year. The hall ticket of the candidate is to be cancelled.
3	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for the examinations of the remaining subjects of that semester/ year. The candidate is also debarred from class work and all university examinations for two consecutive semesters. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the impostor is an outsider, he will be handed over to the police and a case will be registered against him.
4	Smuggles the Answer book or takes out or arranges to send out the question paper during the examination or answer book during or after the examination.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester / year. The candidate is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5	Uses objectionable, abusive or offensive language in the answer paper or in	Cancellation of performance in that subject.

	letters to the examiners or writes to the examiner requesting him to award pass marks.	
6	Refuses to obey the orders of the Chief Superintendent /Asst.-Superintendent/ any officer on duty or misbehaves or creates disturbance of any kind in or around the examination hall or organizes a walkout or instigates others to walkout or threatens the officer-in-charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the Officer-in-charge or any person on duty in or outside the examination hall of any of his relations or indulges in any other act of misconduct or mischief which results in damage to or destruction of property in the examination hall or any part of the college campus or engages in any other act which in the opinion of the Officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	Expulsion from the examination hall and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidate is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidate is also debarred and forfeits the seat.
9	If student of the college who is not a candidate for the particular examination or any person not connected with the	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has

	college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the college will be handed over to the police and a police case will be registered against them.
10	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/ year.
11	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/ year examinations.
12	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the Chief Controller of Examinations for future action toward suitable punishment.	

The involvement of the staff, who are in charge of conducting examinations, valuing examination papers and preparing / keeping records of documents related to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned at the examination shall be viewed seriously and appropriate disciplinary action will be taken after thorough enquiry.

15. Other Matters

i) Deserving physically challenged candidates will be given additional examination time and a scribe based on the certificate issued by the concerned authority. Students who are suffering from contagious diseases are not allowed to appear either for internal or semester end examinations.

ii) The students who participated in coaching / tournaments held at State / National / International levels through University / Indian Olympic Association during semester end external examination period will be promoted to subsequent semesters as per the guidelines of University Grants Commission Letter No. F.1-5/88 (SPE/PES), dated 18-08-1994.

iii) The Principal shall deal in an appropriate manner with any academic problem which is not covered under these rules and regulations, in consultation with the Heads of the Departments and subsequently such actions shall be placed before the Academic Council for ratification. Any emergency modification of regulation, approved in the meetings of the Heads of the Departments shall be reported to the Academic Council for ratification.

16. General

i) The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.

ii) The academic regulations should be read as a whole for the purpose of any interpretation.

iii) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.

iv) Wherever the word he, him or his occurs, it will also include she, her and hers.

* * *

III) PG – MBA Program:

Applicable for the students of MBA from the Academic Year 2020-21

1. ## Duration of the Program
    The duration of the program is two academic years consisting of four semesters. However, a student is permitted to complete the course work of MBA program in the stipulated time frame of **FOUR** years from the date of joining.

2. ## Minimum Instruction Days
    Each semester consists of a minimum of ninety instruction days.

3. ## Program Credits
    MBA program is designed to have a total of 108 credits and the student shall have to complete the two year course work and earn all 108 credits for the award of MBA Degree.

4. ## Attendance Regulations

4.1 A student shall be eligible to appear for End Semester Examinations if he acquires a minimum of 75% of attendance in aggregate of all the subjects.

4.2 Condoning of shortage of attendance in aggregate up to 10% (65% and above and below 75%) in each semester will be considered for genuine reasons such as medical grounds and participation in co-curricular and extra-curricular activities and shall be granted only after approval by the College Academic Committee. Student should submit application for medical leave along with medical certificate from a registered medical practitioner within three days from reporting to the class work after the expiry of the medical leave. In case of participation in co-curricular and extra-curricular activities, either in the college or other colleges, students must take prior written permission from HoD concerned and should also submit the certificate of participation from the organizer of the event within three days after the completion of the event. Only such cases will be considered for condoning attendance shortage.

4.3 A student shall be eligible to claim for condonation of attendance shortage for a maximum of one time during the two year (four semesters) course work of MBA. However, additional one time condonation exclusively during II Year (3rd or 4th Semester) shall be considered on genuine valid reasons.

4.4 A student will not be promoted to the next semester unless he satisfies the attendance requirement of the current semester. He may seek re-admission for that semester when offered next.

4.5 Shortage of Attendance below 65% in aggregate shall in *NO* case be condoned.

4.6 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examination of that semester and their registration shall stand cancelled.

4.7 A fee stipulated by the college shall be payable towards condoning attendance shortage.

5. ## Examinations and Scheme of Evaluation

5.1 Theory Courses:
Each theory course shall be evaluated for a total of 100 marks, consisting of 30 marks for internal assessment and 70 marks for semester end examination.

   i)   Of 30 marks for internal assessment, 10 marks are for continuous assessment in the form of seminar / presentation and 20 marks are based on two mid-term examinations.

   ii) Of the 10 marks for continuous assessment, 5 marks are for seminar report and 5 marks are for presentation.

iii) Each mid-term examination is conducted for 30 marks with two hours duration. Each mid-term examination consists of three questions, each for 10 marks. All the questions need to be answered.

iv) Sum of the 75% marks of better scored mid-term examination and 25% marks of less scored mid-term examination are scaled down for 20 marks.

External Assessment

The semester end examination shall be conducted for a duration of three hours with A, B & C Sections (Section-A consists of 5 two marks questions, Section-B consists of three essay questions with internal choice, each for 15 marks & Section-C contains case study for 15 marks). All sections are to be answered.

5.2 Laboratory Course:

i) For practical subjects the distribution shall be 30 marks for Internal Evaluation and 70 marks for the semester end examinations. There shall be continuous evaluation by the internal subject teacher during the semester for 30 internal marks. Of the 30 marks for internal, 20 marks shall be for day-to-day performance (15 marks for day-to-day evaluation and 5 marks for Record) and 10 marks shall be evaluated by conducting an internal laboratory test towards the end of semester.

ii) Semester End examination shall be conducted by the teacher concerned and external examiner for 70 marks.

5.3 Comprehensive Viva-Voce:

Comprehensive Viva-Voce examination is conducted in all the subjects of four semesters of the course for 100 marks at the end of fourth semester by a committee consisting of two senior faculty members of the department.

5.4 Project work:

i) The final project work shall be carried out during the 4th semester and will be evaluated for 100 marks.

ii) Of 100 marks, 30 marks shall be for Internal Evaluation and 70 marks for the project evaluation and end semester Viva-Voce.

iii) Each student needs to give two seminars on the topic of his project, and each seminar is evaluated for 15 marks by a committee consisting of the supervisor and a senior faculty of the department. The sum of the mark of two seminars is taken as internal marks for 30.

iv) The project evaluation and semester end Viva–Voce shall be conducted by the committee consisting of an External Examiner, Head of the Department and the supervisor of the project. The evaluation of project work shall be conducted at the end of the fourth year second semester.

6. Criteria for Passing a Course and Award of Grades:

6.1 Criteria for Passing a Course:

i) A candidate shall be declared to have passed in individual theory/ laboratory / project course if he secures a minimum of 50% aggregate marks (internal & semester end examination marks put together), subject to a minimum of 40% marks in the semester end examination.

ii) A candidate shall be declared to have passed in comprehensive viva-voce if he secures a minimum of 50% marks.

iii) On passing a course of a program, the student shall earn assigned credits in that course.

6.2 Method of Awarding Letter Grades and Grade Points for a Course:

A letter grade and grade points will be awarded to a student in each course based on his performance as per the grading system given below.

Theory/ Elective Course (%)	Laboratory/ Seminar / Term Paper/ Project Dissertation (%)	Grade Points	Letter Grade
≥ 90	≥ 90	10	O (Outstanding)
≥ 80 & < 90	≥ 80 & < 90	9	A+ (Excellent)
≥ 70 & < 80	≥ 70 & < 80	8	A (Very Good)
≥ 60 & < 70	≥ 60 & < 70	7	B+ (Good)
≥ 50 & < 60	≥ 50 & < 60	6	B (Above Average)
< 50	< 50	0	F (Fail)

6.3 Calculation of Semester Grade Point Average (SGPA)* for semester:

The performance of each student at the end of the each semester is indicated in terms of SGPA. The SGPA is calculated as given below:

$$\textbf{SGPA} = \frac{\sum (CR \; X \; GP)}{\sum CR} \quad \text{for each semester.}$$

where CR = Credits of a course

GP = Grade Points awarded for a course

* SGPA is calculated for a candidate who passed all the courses in that semester.

6.4 Eligibility for Award of MBA Degree:

A student will be declared eligible for the award of the MBA Degree if he fulfills the following academic regulations.

i) Pursued a course of study for not less than two academic years and not more than four academic years.

ii) Registered for prescribed **90** credits and secured **90** credits.

iii) Students, who fail to complete their Two years Course of study within Four years or fail to acquire the **90** Credits for the award of the degree within four academic years from the year of their admission shall forfeit their seat in MBA course and their admission shall stand cancelled.

6.5 Calculation of Cumulative Grade Point Average (CGPA) for Entire Program:

The CGPA is calculated as given below:

$$\textbf{CGPA} = \frac{\sum (CR \; X \; GP)}{\sum CR} \quad \text{for entire program.}$$

where CR = Credits of a course

GP = Grade points awarded for a course

6.6 Award of Division:

After satisfying the requirements prescribed for the completion of the program, the student shall be eligible for the award of MBA Degree and shall be placed in one of the following grades:

CGPA	Class
≥ 7.5	First Class with Distinction*
≥ 6.5 & < 7.5	First Class
≥ 6.0 & < 6.5	Second Class

* CGPA ≥ 7.5 will be awarded first class with distinction provided the student must have fulfilled all the program requirements in two (2) years duration.

7. Supplementary Examinations

i) Supplementary examinations will be conducted twice in a year at the end of odd and even semesters.

ii) Semester end supplementary examinations shall be conducted till next regulation comes into force for that semester after the conduct of the last set of regular examinations under the present regulation.

iii) Thereafter, supplementary examinations will be conducted separately in the regulations in which the candidate was first admitted/readmitted.

iv) **Advanced Supplementary Examinations:** Candidate(s), who failed in theory / comprehensive Viva-Voce / project work courses in 4th semester can appear for advanced supplementary examination conducted within one month after declaration of the revaluation results. However, those candidates who fail in these advanced supplementary examinations shall appear for subsequent examination along with regular candidates in the examinations conducted at the end of the respective semester**.**

8. Revaluation

i) Students can submit the applications for revaluation, along with the prescribed fee receipt for revaluation of his answer script(s) of theory course(s) as per the notification issued by the Controller of Examinations.

ii) The Controller of Examinations shall arrange for revaluation of such answer script(s).

iii) An external examiner, other than the first examiner, shall revaluate the answer script(s).

iv) If the variation in marks of two evaluations is less than 15% of total marks, the best mark of two evaluations shall be taken into consideration.

v) If the variation in marks of two evaluations is more than 15% of total marks, there shall be third evaluation by an examiner other than the first two examiners. The best marks of two evaluations (which are nearer) shall be taken into consideration.

9. Readmission Criteria

A candidate, who is detained in a semester due to lack of attendance has to obtain written permission from the Principal for readmission into the same semester after duly fulfilling the required norms stipulated by the college and by paying the required tuition fee and special fee in addition to paying an administrative fee of Rs. 1,000/-.

10. Break in Study

Student, who discontinues the studies for what-so-ever reason, can get readmission into appropriate semester of MBA program only with the prior permission of the Principal of the College, provided such candidate shall follow the transitory regulations applicable to the batch he joins. An administrative fee of Rs.2,000/- per each year of break in study, in addition to the prescribed tuition and special fees should be paid by the candidate to condone his break in study.

11. Transitory Regulations

When a student is detained due to shortage of attendance, he/she may be readmitted into the same semester in which he/she has been detained. However, the academic regulations under which the detained student was first admitted shall continue to be applicable to him/her. A candidate, who is detained in a semester, on readmission shall be required to do all the courses in the curriculum prescribed for the batch of students in which the student joins subsequently. However, exemption will be given to those candidates who have already passed such courses in the earlier semester(s)

he was originally admitted into and he will be offered substitute subjects in place of them as decided by the Board of Studies. However, the decision of the Board of Studies will be final.

12. Withholding of Results

If the student has not paid the dues, if any, to the College or if any case of indiscipline is pending against him, the result of the student will be withheld. His degree will be withheld in such cases.

13. Malpractices

i) The Principal shall refer the cases of malpractices in internal assessment tests and semester end examinations to a malpractice enquiry committee constituted by him for the purpose. Such committee shall follow the approved levels of punishment. The Principal shall take necessary action against the erring students based on the recommendations of the committee.

ii) Any action by the candidate trying to get undue advantage in the performance or trying to help another, or derive the same through unfair means is punishable according to the provisions contained hereunder.

Malpractice Provisions:

Sl. No.	Nature of Malpractices / Improper conduct	Punishment
1 (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination.)	Expulsion from the examination hall and cancellation of the performance in that subject only.
(b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through Cell phones with any candidates or persons in or outside the exam hall in respect of any matter.	Expulsion of all the candidates involved from the examination hall and cancellation of the performance in that subject only. In case of an outsider, he will be handed over to the police and a case is registered against him.
2	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester / year. The hall ticket of the candidate is to be cancelled and sent to the university.
3	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for the examinations of the remaining subjects of that semester/ year. The candidate is also debarred from class work and all university examinations for two consecutive semesters. The continuation of the course by the

		candidate is subject to the academic regulations in connection with forfeiture of seat. If the impostor is an outsider, he will be handed over to the police and a case is registered against him.
4	Smuggles the Answer book or takes out or arranges to send out the question paper during the examination or answer book during or after the examination.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester / year. The candidate is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of performance in that subject.
6	Refuses to obey the orders of the Chief Superintendent /Asst.-Superintendent/ any officer on duty or misbehaves or creates disturbance of any kind in or around the examination hall or organizes a walkout or instigates others to walkout or threatens the officer-in-charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the Officer-in-charge or any person on duty in or outside the examination hall of any of his relations or indulges in any other act of misconduct or mischief which results in damage to or destruction of property in the examination hall or any part of the college campus or engages in any other act which in the opinion of the Officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.
7	Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidate is also debarred for two consecutive semesters from class work and all university examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
8	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and

		project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidate is also debarred and forfeits the seat.
9	If student of the college who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that semester/ year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the college will be handed over to the police and a police case is registered against them.
10	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/ year.
11	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/ year examinations.
12	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the university for future action toward suitable punishment.	

The involvement of the staff, who are in charge of conducting examinations, valuing examination papers and preparing / keeping records of documents related to the examinations in such acts (inclusive of providing incorrect or misleading information) that infringe upon the course of natural justice to one and all concerned at the examination shall be viewed seriously and appropriate disciplinary action will be taken after thorough enquiry.

14. Other Matters

i) Physically challenged candidates who have availed additional examination time and a scribe during their BA/B.Com/B.Sc/BCA or equivalent examinations will be given similar concessions on production of relevant proof/documents. Students who are suffering from contagious diseases are not allowed to appear either for internal or semester end examinations.

ii) The students who participated in coaching / tournaments held at State / National / International levels through University / Indian Olympic Association during semester end external examination period will be promoted to subsequent semesters as per the guidelines of University Grants Commission Letter No. F.1-5/88 (SPE/PES), dated 18-08-1994.

iii) The Principal shall deal in an appropriate manner with any academic problem which is not covered under these rules and regulations, in consultation with the Heads of the Departments and subsequently such actions shall be placed before the Academic Council for ratification. Any emergency modification of regulation, approved in the meetings of the Heads of the Departments shall be reported to the Academic Council for ratification.

15. General

i) The Academic Council may, from time to time, revise, amend or change the regulations, schemes of examination and /or syllabi.

ii)   The academic regulations should be read as a whole for the purpose of any interpretation.

iii) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Chairman of the Academic Council is final.

iv)   Wherever the word he, him or his occurs, it will also include she, her and hers.

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