

COURSE STRUCTURE AND SYLLABUS

For

CIVIL ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India


Principal

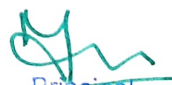
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

I Year - I Semester

S. No.	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics - I	4	--	--	3
3-ES	Engineering Chemistry	4	--	--	3
4-BS	Engineering Mechanics	4	2	--	3
5-BS	Computer Programming	4	--	--	3
6-ES	Environmental Studies	4	--	--	3
7-HS	Engineering /Applied Chemistry Laboratory	--	--	3	2
8-BS	English - Communication Skills Lab - I	--	--	3	2
9-ES	Computer Programming Lab	--	--	3	2
Total Credits					24

I Year - II Semester

S. No.	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics – II (Mathematical Methods)	4	--	--	3
3-BS	Mathematics – III	4	--	--	3
4-ES	Engineering Physics	4	--	--	3
5-HS	Elements of Mechanical Engineering	4	--	--	3
6-ES	Engineering Drawing	4	--	--	3
7-BS	English - Communication Skills Lab - II	--	--	3	2
8-HS	Engineering /Applied Physics Lab	--	--	3	2
9-ES	Engineering / Applied Physics – Virtual Labs - Assignments	--	--	2	--
10	Engg. Workshop & IT Workshop	--	--	3	2
Total Credits					24


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

II Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Probability & Statistics	4	--	--	3
2	Basic Electrical & Electronics Engineering	4	--	--	3
3	Strength of Materials-I	4	--	--	3
4	Building Materials & Construction	4	--	--	3
5	Surveying	4	--	--	3
6	Fluid Mechanics	4	--	--	3
7	Survey Field Work - I	--	--	3	2
8	Strength of Materials Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					22

II Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Building Planning & Drawing	4	--	--	3
2	Strength of Materials - II	4	--	--	3
3	Hydraulics & Hydraulic Machinery	4	--	--	3
4	Concrete Technology	4	--	--	3
5	Structural Analysis - I	4	--	--	3
6	Transportation Engineering - I	4	--	--	3
7	FM & HM Lab	--	--	3	2
8	Survey Field Work - II	--	--	3	2
MC	Managerial Economics & Financial Analysis	2	--	--	--
Total Credits					22



Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

III Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Management Science	4	--	--	3
2	Engineering Geology	4	--	--	3
3	Structural Analysis -II	4	--	--	3
4	Design & Drawing of Reinforced Concrete Structures	4	2	--	3
5	Transportation Engineering - II	4	--	--	3
6	Concrete Technology Lab	--	--	3	2
7	Geology Lab	--	--	3	2
8	Transportation Engineering Lab	--	--	3	2
Total Credits					21

III Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Design & Drawing of Steel Structures	4	2	--	3
2	Geotechnical Engineering - I	4	--	--	3
3	Environmental Engineering -I	4	--	--	3
4	Water Resource Engineering -I	4	--	--	3
5	OPEN ELECTIVE				
	i. Electronic Instrumentation				
	ii. Data Base Management Systems				
	iii. Alternative Energy Sources				
	iv. Waste water Management				
	v. Fundamentals of Liquefied Natural Gas				
	vi. Green Fuel Technologies	4	--	--	3
6	Geotechnical Engineering Lab	--	--	3	2
7	Environmental Engineering Lab	--	--	3	2
8	Computer Aided Engineering Lab	--	--	3	2
Total Credits					21


 Principal
 GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.

IV Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Environmental Engineering - II	4	--	--	3
2	Water Resource Engineering - II	4	--	--	3
3	Geotechnical Engineering - II	4	--	--	3
4	Remote Sensing & GIS Applications	4	--	--	3
5	Elective I i. Finite Element Methods ii. Ground Improvement Techniques iii. Air Pollution & Control iv. Urban Hydrology v. Traffic Engineering	4	--	--	3
6	Elective II i. Advanced Structural Engineering ii. Advanced Foundation Engineering iii. Environmental Impact Assessment & Management iv. Ground Water Development v. Pavement Analysis and Design	4	--	--	3
7	IPR & Patents	--	2	--	--
8	GIS & CAD Lab	--	--	2	2
9	Irrigation Design & Drawing	--	--	2	2
Total Credits					22

IV Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Estimation Specification & Contracts	4	--	--	3
2	Construction Technology & Management	4	--	--	3
3	Prestressed Concrete	4	--	--	3
4	Elective III i. Bridge Engineering ii. Soil Dynamics and Foundations iii. Solid and Hazardous Waste Management iv. Water Resources Systems Planning v. Urban Transportation Planning Engg	4	--	--	3
5	Seminar on Internship Project	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

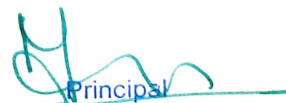
Total Course Credits = 48+44 + 42 + 46 = 180


 Principal
 GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDY - 533 296.

COURSE STRUCTURE AND SYLLABUS
For
ELECTRICAL AND ELECTRONICS ENGINEERING
(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

I Year – I Semester

S. No	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics - I	4	--	--	3
3-ES	Applied Chemistry	4	--	--	3
4-BS	Engineering Mechanics	4	--	--	3
5-BS	Computer Programming	4	--	--	3
6-ES	Environmental Studies	4	--	--	3
7-HS	Applied / Engineering Chemistry Laboratory	--	--	3	2
8-BS	English- Communication Skills Laboratory - I	--	--	3	2
9-ES	Computer Programming Laboratory	--	--	3	2
Total Credits					24

I Year – II Semester

S. No	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics – II (Mathematical Methods)	4	--	--	3
3-BS	Mathematics – III	4	--	--	3
4-ES	Applied Physics	4	--	--	3
5	Electrical Circuit Analysis - I	4	--	--	3
6-ES	Engineering Drawing	4	--	--	3
7-BS	English - Communication Skills Laboratory - II	--	--	3	2
8-HS	Applied / Engineering Physics Laboratory	--	--	3	2
9-ES	Applied / Engineering Physics – Virtual Labs - Assignments	--	--	2	--
10	Engg. Workshop & IT Workshop	--	--	3	2
Total Credits					24


 Principal
GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.

II Year – I Semester

S. No	Subjects	L	T	P	Credits
1	Electrical Circuit Analysis - II	4	--	--	3
2	Electrical Machines-I	4	--	--	3
3	Basic Electronics and Devices	4	--	--	3
4	Electro Magnetic Fields	4	--	--	3
5	Thermal and Hydro Prime Movers	4	--	--	3
6	Managerial Economics & Financial Analysis	4	--	--	3
7	Thermal and Hydro Laboratory	--	--	3	2
8	Electrical Circuits Laboratory	--	--	3	2
Total Credits					22

II Year – II Semester

S. No	Subjects	L	T	P	Credits
1	Electrical Measurements	4	--	--	3
2	Electrical Machines-II	4	--	--	3
3	Switching Theory and Logic Design	4	--	--	3
4	Control Systems	4	--	--	3
5	Power Systems-I	4	--	--	3
6	Management Science	4	--	--	3
7	Electrical Machines -I Laboratory	--	--	3	2
8	Electronic Devices & Circuits Laboratory	--	--	3	2
Total Credits					22


Principal
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDY - 533 296.

III Year – I Semester

S. No	Subjects	L	T	P	Credits
1	Power Systems-II	4	--	--	3
2	Renewable Energy Sources	4	--	--	3
3	Signals and Systems	4	--	--	3
4	Pulse & Digital Circuits	4	--	--	3
5	Power Electronics	4	--	--	3
6	Electrical Machines-II Laboratory	--	--	3	2
7	Control Systems Laboratory	--	--	3	2
8	Electrical Measurements Laboratory	--	--	3	2
9-MC	IPR & Patents	--	2	--	--
Total Credits					21

III Year – II Semester

S. No	Subjects	L	T	P	Credits
1	Power Electronic Controllers & Drives	4	--	--	3
2	Power System Analysis	4	--	--	3
3	Micro Processors and Micro controllers	4	--	--	3
4	Data Structures	4	--	--	3
5	Open Elective 1. Unix and Shell Programming 2. OOPS Through JAVA 3. VLSI Design 4. Robotics 5. Neural Networks & Fuzzy Logic 6. Energy Audit and Conservation & Management	4	--	--	3
6	Power Electronics Laboratory	--	--	3	2
7	Microprocessors & Microcontrollers Laboratory	--	--	3	2
8	Data Structures Laboratory	--	--	3	2
9-MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

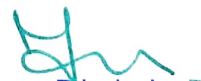

 Principal
 GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.

IV Year – I Semester

S. No	Subjects	L	T	P	Credits
1	Utilization of Electrical Energy	4	--	--	3
2	Linear IC Applications	4	--	--	3
3	Power System Operation & Control	4	--	--	3
4	Switchgear and Protection	4	--	--	3
5	<u>Elective – I:</u> 1. Electrical Machine Modeling and Analysis 2. Advanced Control Systems 3. Programmable Logic Controllers & Applications 4. Instrumentation	4	--	--	3
6	<u>Elective – II:</u> 1. Optimization Techniques 2. Electric Power Quality 3. Special Electrical Machines	4	--	--	3
7	Electrical Simulation Laboratory	--	--	2	2
8	Power Systems & Simulation Laboratory	--	--	2	2
Total Credits					22

IV Year - II Semester

S. No	Subjects	L	T	P	Credits
1	Digital Control Systems	4	--	--	3
2	HVDC Transmission	4	--	--	3
3	Electrical Distribution Systems	4	--	--	3
4	<u>Elective – III:</u> 1. High Voltage Engineering 2. Flexible Alternating Current Transmission Systems 3. Power System Reforms	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

COURSE STRUCTURE AND SYLLABUS

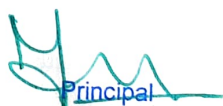
For

MECHANICAL ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

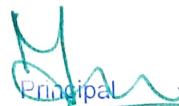

Principal
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

I Year - I Semester

S. No.	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics - I	4	--	--	3
3-ES	Engineering Chemistry	4	--	--	3
4-BS	Engineering Mechanics	4	--	--	3
5-BS	Computer Programming	4	--	--	3
6-ES	Environmental Studies	4	--	--	3
7-HS	Engineering/Applied Chemistry Laboratory	--	--	3	2
8-BS	English - Communication Skills Lab - I	--	--	3	2
9-ES	Computer Programming Lab	--	--	3	2
Total Credits					24

I Year - II Semester

S. No.	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics – II (Mathematical Methods)	4	--	--	3
3-BS	Mathematics – III	4	--	--	3
4-ES	Engineering Physics	4	--	--	3
5-HS	Basic Electrical and Electronics Engineering	4	--	--	3
6-ES	Engineering Drawing	4	--	--	3
7-BS	English - Communication Skills Lab - II	--	--	3	2
8-HS	Engineering /Applied Physics Lab	--	--	3	2
9-ES	Engineering /Applied Physics – Virtual Labs - Assignments	--	--	2	--
10	Engg. Workshop & IT Workshop	--	--	3	2
Total Credits					24


Principal

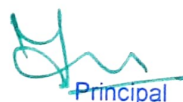
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

II Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Metallurgy & Materials Science	4	--	--	3
2	Mechanics of Solids	4	--	--	3
3	Thermodynamics	4	--	--	3
4	Managerial Economics & Financial Analysis	4	--	--	3
5	Fluid Mechanics & Hydraulic Machines	4	--	--	3
6	Computer Aided Engineering Drawing Practice	3	3	--	3
7	Electrical & Electronics Engg. Lab	--	--	3	2
8	Mechanics of Solids & Metallurgy Lab	--	--	3	2
Total Credits					22

II Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Kinematics of Machinery	4	--	--	3
2	Thermal Engineering -I	4	--	--	3
3	Production Technology	4	--	--	3
4	Design of Machine Members -I	4	--	--	3
5	Machine Drawing	3	3	--	3
6	Industrial Engineering and Management	4	--	--	3
7	Fluid Mechanics & Hydraulic Machines Lab	--	--	3	2
8	Production Technology Lab	--	--	3	2
Total Credits					22



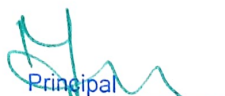
Principal
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDY - 533 296.

III Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Dynamics of Machinery	4	--	--	3
2	Metal Cutting & Machine Tools	4	--	--	3
3	Design of Machine Members-II	4	--	--	3
4	Operations Research	4	--	--	3
5	Thermal Engineering -II	4	--	--	3
6	Theory of Machines Lab	--	--	3	2
7	Machine Tools Lab	--	--	3	2
8	Thermal Engineering Lab	--	--	3	2
9	IPR & Patents	--	2	--	--
Total Credits					21

III YEAR - II Semester

S. No.	Subjects	L	T	P	Credits
1	Metrology	4	--	--	3
2	Instrumentation & Control Systems	4	--	--	3
3	Refrigeration & Air-conditioning	4	--	--	3
4	Heat Transfer	4	--	--	3
5	OPEN ELECTIVE 1. Entrepreneurship 2. Data Base Management System 3. Waste Water Management 4. Computer Graphics 5. Industrial Robotics 6. Green Engineering Systems	4	--	--	3
6	Heat Transfer Lab	--	--	3	2
7	Metrology & Instrumentation Lab	--	--	3	2
8	Computational Fluid Dynamics Lab	--	--	3	2
9MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

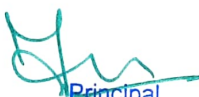
IV Year - I Semester

S. NO	Subjects	L	T	P	Credits
1	Mechatronics	4	--	--	3
2	CAD/CAM	4	--	--	3
3	Finite Element Methods	4	--	--	3
4	Power Plant Engineering	4	--	--	3
5	Elective I 1. Computational Fluid Dynamics 2. Condition Monitoring 3. Additive Manufacturing	4	--	--	3
6	Elective II 1. Advanced Materials 2. Design for Manufacture 3. Gas Dynamics & Jet Propulsion	4	--	--	3
7	CAD/CAM Lab	--	--	2	2
8	Mechatronics Lab	--	--	2	2
Total Credits					22

IV Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Production Planning and Control	4	--	--	3
T 2	Unconventional Machining Processes	4	--	--	3
3	Automobile Engineering	4	--	--	3
4	Elective III 1. Thermal Equipment Design 2. Non Destructive Evaluation 3. Quality and Reliability Engineering	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

COURSE STRUCTURE AND SYLLABUS
For
ELECTRONICS AND COMMUNICATION ENGINEERING
(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India


Principal

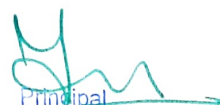
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

I Year - I Semester

S.No.	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics - I	4	--	--	3
3-ES	Mathematics -II (Numerical Methods and Complex Variables)	4	--	--	3
4-BS	Applied Physics	4	--	--	3
5-ES	Computer Programming	4	--	--	3
6-ES	Engineering Drawing	1	--	3	3
7-HS	English - Communication Skills Lab -1	--	--	3	2
8-BS	Applied / Engineering Physics Laboratory	--	--	3	2
9-BS	Applied / Engineering Physics – Virtual Labs - Assignments	--	--	2	--
10-ES	Engineering Workshop & IT Workshop	--	--	3	2
Total Credits					24

I Year - II Semester

S.No.	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics -III	4	--	--	3
3-BS	Applied Chemistry	4	--	--	3
4-ES	Electrical and Mechanical Technology	4	--	--	3
5-HS	Environmental Studies	4	--	--	3
6-ES	Data Structures	4	--	--	3
7-BS	Applied / Engineering Chemistry Laboratory	--	--	3	2
8-HS	English - Communication Skills Lab -2	--	--	3	2
9-ES	Computer Programming Lab	--	--	3	2
Total Credits					24


Principal

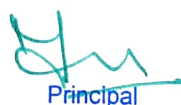
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

II Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Electronic Devices and Circuits	4	--	--	3
2	Switching Theory and Logic Design	4	--	--	3
3	Signals and Systems	4	--	--	3
4	Network Analysis	4	--	--	3
5	Random Variables and Stochastic Process	4	--	--	3
6	Managerial Economics & Financial Analysis	4	--	--	3
7	Electronic Devices and Circuits Lab	--	--	3	2
8	Networks & Electrical Technology Lab	--	--	3	2
Total Credits					22

II Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Electronic Circuit Analysis	4	--	--	3
2	Control Systems	4	--	--	3
3	Electromagnetic Waves and Transmission Lines	4	--	--	3
4	Analog Communications	4	--	--	3
5	Pulse and Digital Circuits	4	--	--	3
6	Management Science	4	--	--	3
7	Electronic Circuit Analysis Lab	--	--	3	2
8	Analog Communications Lab	--	--	3	2
Total Credits					22


Principal

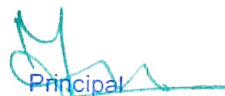
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

III Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Computer Architecture and Organization	4	--	--	3
2	Linear I C Applications	4	--	--	3
3	Digital I C Applications	4	--	--	3
4	Digital Communications	4	--	--	3
5	Antenna and Wave Propagation	4	--	--	3
6	Pulse and Digital Circuits Lab	--	--	3	2
7	Linear I C Applications Lab	--	--	3	2
8	Digital I C Applications Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

III Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Micro Processors & Micro Controllers	4	--	--	3
2	Micro Wave Engineering	4	--	--	3
3	VLSI Design	4	--	--	3
4	Digital Signal Processing	4	--	--	3
5	OPEN ELECTIVE 1. OOPs through Java 2. Data Mining 3. Industrial Robotics 4. Power Electronics 5. Bio-Medical Engineering 6. Artificial Neural Networks	4	--	--	3
6	Micro Processors & Micro Controllers Lab	--	--	3	
7	VLSI Lab	--	--	2	
8	Digital Communications Lab	--	--		2
MC	IPR & Patents	--			--
Total Credits					21


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

IV Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Radar Systems	4	--	--	3
2	Digital Image Processing	4	--	--	3
3	Computer Networks	4	--	--	3
4	Optical Communications	4	--	--	3
5	Elective I 1. TV Engineering 2. Electronic Switching Systems 3. System Design through Verilog	4	--	--	3
6	Elective II 1. Embedded Systems 2. Analog IC Design 3. Network Security & Cryptography	4	--	--	3
7	Micro Wave Engineering & Optical Lab	--	--	2	2
8	Digital Signal Processing Lab	--	--	2	2
Total Credits					22

IV Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Cellular Mobile Communications	4	--	--	3
2	Electronic Measurements and Instrumentation	4	--	--	3
3	Satellite Communications	4	--	--	3
4	Elective III 1. Wireless sensors & Networks 2. Digital IC Design 3. Operating Systems	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

COURSE STRUCTURE AND SYLLABUS

For

COMPUTER SCIENCE AND ENGINEERING *(Applicable for batches admitted from 2016-2017)*



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

Principal

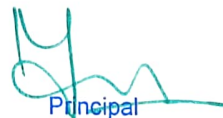
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDY - 533 296.

I Year - I Semester

S. No.	Subjects	L	T	P	Credits
1-HS	English – I	4	--	--	3
2-BS	Mathematics - I	4	--	--	3
3-BS	Mathematics – II (Mathematical Methods)	4	--	--	3
4-BS	Applied Physics	4	--	--	3
5	Computer Programming	4	--	--	3
6-ES	Engineering Drawing	4	--	--	3
7-HS	English - Communication Skills Lab - 1	--	--	3	2
8-BS	Applied / Engineering Physics Lab	--	--	3	2
9-ES	Applied / Engineering Physics – Virtual Labs – Assignments	--	--	2	--
10	Computer Programming Lab	--	--	3	2
Total Credits					24

I Year - II SEMESTER

S. No.	Subjects	L	T	P	Credits
1-HS	English – II	4	--	--	3
2-BS	Mathematics - III	4	--	--	3
3-BS	Applied Chemistry	4	--	--	3
4	Object Oriented Programming through C++	4	--	--	3
5-HS	Environmental Studies	4	--	--	3
6-ES	Engineering Mechanics	4	--	--	3
7-BS	Applied / Engineering Chemistry Laboratory	--	--	3	2
8-HS	English - Communication Skills Lab – 2	--	--	3	2
9	Object Oriented Programming Lab	--	--	3	2
Total Credits					24



Principal
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

II Year - I Semester

S. No.	Subjects	L	T	P	Credits
1-HS	Statistics with R Programming	4	--	--	3
2	Mathematical Foundations of Computer Science	4	--	--	3
3	Digital Logic Design	4	--	--	3
4	Python Programming	4	--	--	3
5	Data Structures through C++	4	--	--	3
6	Computer Graphics	4	--	--	3
7	Data Structures through C++Lab	--	--	3	2
8	Python Programming Lab	--	--	3	2
Total Credits					22

II Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Software Engineering	4	--	--	3
2	Java Programming	4	--	--	3
3	Advanced Data Structures	4	--	--	3
4	Computer Organization	4	--	--	3
5	Formal Languages and Automata Theory	4	--	--	3
6	Principles of Programming Languages	4	--	--	3
7	Advanced Data Structures Lab	--	--	3	2
8	Java Programming Lab	--	--	3	2
Total Credits					22


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRI - 533 296.

III Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Compiler Design	4	--	--	3
2	Unix Programming	4	--	--	3
3	Object Oriented Analysis and Design using UML	4	--	--	3
4	Database Management Systems	4	--	--	3
5	Operating Systems	4	--	--	3
6	Unified Modeling Lab	--	--	3	2
7	Operating System & Linux Programming Lab	--	--	3	2
8	Database Management System Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

III Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Computer Networks	4	2	--	3
2	Data Warehousing and Mining	4	--	--	3
3	Design and Analysis of Algorithms	4	--	--	3
4	Software Testing Methodologies	4	--	--	3
5	Open Elective: i. Artificial Intelligence ii. Internet of Things iii. Cyber Security iv. Digital Signal Processing v. Embedded Systems vi. Robotics	4	--	--	3
6	Network Programming Lab	--	--	3	2
7	Software Testing Lab	--	--	3	2
8	Data Warehousing and Mining Lab	--	--	3	2
9	IPR & Patents	--	2	--	--
Total Credits					21


 Principal
 GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.

IV Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Cryptography and Network Security	4	--	--	3
2	Software Architecture & Design Patterns	4	--	--	3
3	Web Technologies	4	--	--	3
4- HS	Managerial Economics and Financial Analysis	4	--	--	3
5	Elective-I i. Big Data Analytics ii. Information Retrieval Systems iii. Mobile Computing	4	--	--	3
6	Elective-II i. Cloud Computing ii. Software Project Management iii. Scripting Languages	4	--	--	3
7	Software Architecture & Design Patterns Lab	--	--	3	2
8	Web Technologies Lab	--	--	3	2
Total Credits					22

IV Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Distributed Systems	4	--	--	3
2- HS	Management Science	4	--	--	3
3	Machine Learning	4	--	--	3
4	Elective-III i. Concurrent and Parallel Programming ii. Artificial Neural Networks iii. Operations Research	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180


 Principal
 GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

B. TECH CIVIL ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India


Principal
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

GIET ENGINEERING COLLEGE
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1101	Mathematics – I	3	0	0	3
2	BS1102	Mathematics – II	3	0	0	3
3	BS1108	Engineering Physics	3	0	0	3
4	ES1104	Engineering Mechanics	3	1	0	4
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1109	Engineering Physics Lab	0	0	3	1.5
8	PR1101	Engineering Exploration Project	0	0	2	1
Total Credits			16	0	12	19.5

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1201	English	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1210	Engineering Chemistry	3	0	0	3
4	ES1201	Programming for problem Solving Using C	3	0	0	3
5	ES1207	Computer Aided Engineering Drawing	1	0	3	2.5
6	ES1202	Programming for problem Solving Using C Lab	0	0	3	1.5
7	BS1211	Engineering Chemistry Lab	0	0	3	1.5
8	HS1203	Communications Skills Lab	0	0	3	1.5
9	ES1219	Workshop Practice Lab	0	0	3	1.5
10	MC1201	Environmental Science	3	0	0	0
Total Credits			15	0	11	20.5


 Principal
GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

II YEAR: I- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	BS301	Complex Variables and Statistical Methods	3	0	0	3
2	PC301	Strength of Materials-I	3	0	0	3
3	PC302	Fluid Mechanics	3	0	0	3
4	ES301	Surveying and Geometrics'	3	0	0	3
5	PC303	Building Materials, Construction and Planning	3	0	0	3
6	PC304	Transportation Engineering-I	3	0	0	3
7	PC305	Strength of Materials Lab	0	0	3	1.5
8	PC306	Surveying Field Work – I	0	0	3	1.5
9	MC301	Constitution of India	2	0	0	0
Total Credits						21

II YEAR: II- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC401	Strength of Materials-II	3	0	0	3
2	PC402	Hydraulics and Hydraulic Machinery	3	0	0	3
3	ES401	Engineering Geology	3	0	0	3
4	PC403	Transportation Engineering - II	3	0	0	3
5	PC404	Environmental Engineering - I	3	0	0	3
6	PC405	Engineering Geology Lab	0	0	2	1
7	PC406	Transportation Engineering Lab	0	0	3	1.5
8	PC407	Fluid Mechanics & Hydraulics Machinery Lab	0	0	3	1.5
9	MC401	Essence of Indian Traditional Knowledge/ Professional Ethics and Human Values	2	0	0	0
Total Credits						19

GIET ENGINEERING COLLEGE
NH-16, Chaitanya Knowledge City,
RAJAHMUNDY - 533 296.


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

III YEAR: I- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC501	Structural Analysis	3	0	0	3
2	PC502	Concrete Technology	2	0	0	2
3	PC503	Water Resources Engineering - I	3	0	0	3
4	PC504	Environmental Engineering - II	3	0	0	3
5	PE501	Program Elective – I	3	0	0	3
6	OE501	Open Elective – I	3	0	0	3
7	PC506	Concrete Technology Lab	0	0	3	1.5
8	PC507	Surveying Field Work - II	0	0	3	1.5
		Total Credits				20

III YEAR: II- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC601	Design & Drawing of Reinforced Concrete Structures	3	0	0	3
2	PC602	Water Resources Engineering – II	3	0	0	3
3	PC603	Geotechnical Engineering - I	3	0	0	3
4	HS601	Managerial Economics & Financial Accountancy	3	0	0	3
5	PE601	Program Elective – II	3	0	0	3
6	OE601	Open Elective – II	3	0	0	3
7	PC604	CAD Lab	0	0	3	1.5
8	PC605	Environmental Engineering Lab	0	0	3	1.5
9	PR601	Socially Relevant Project	0	0	2	1
10	MC601	Employability Skills	0	0	2	0
		Total Credits				22


 Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

IV YEAR: I- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC701	Design & Drawing of Steel Structures	3	0	0	3
2	PC702	Geotechnical Engineering - II	3	0	0	3
3	PC703	Remote Sensing & GIS	3	0	0	3
4	PE701	Program Elective – III	3	0	0	3
5	OE701	Open Elective – III	3	0	0	3
6	PC704	Remote Sensing & GIS Lab	0	0	3	1.5
7	PC705	Geotechnical Engineering Lab	0	0	3	1.5
8	PR701	Industrial Training/ Internship or Seminar	0	0	3	1
9	PR702	Project Work Phase-I	0	0	4	2
		Total Credits				21

IV YEAR: II- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC801	Estimation Specifications and Contract	3	0	0	3
2	PE801	Program Elective - IV	3	0	0	3
3	PE802	Program Elective – V	3	0	0	3
4	PR801	Project Work Phase-II	0	0	16	8
		Total Credits				17


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

GIET ENGINEERING COLLEGE
 NH-16, Chaitanya Knowledge City
 RAJAHMUNDRY - 533 296



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

Open Electives	Professional Elective-I	Professional Elective-II	Professional Elective-III	Professional Elective-IV	Professional Elective-V
a) Disaster Management	a) Repair & Rehabilitation of Buildings	a) Pre-stressed Concrete	a) Bridge Engineering	a) Finite Element Methods	a) Advanced Structural Analysis
b) Environmental Pollution & Control	b) Environmental Impact Assessment	b) Watershed Management	b) Industrial Waste Water Treatment	b) Design & Drawing of Irrigation Structures	b) Urban Hydrology
c) Elements of Civil Engineering	c) Reinforced Soil Structures	c) Advanced Foundation Engineering	c) Earth & Rock-fill Dams	c) Soil Dynamics and Machine Foundations	c) Ground Improvement Techniques
d) Green Technology	d) Traffic Engineering	d) Urban Transportation Planning	d) Intelligent Transportation Systems	d) Road Safety Engineering	d) Pavement Management Systems
e) Smart Cities	e) Construction Technology & Management	e) Architecture Town Planning	e) Building Services	e) Disaster Management & Mitigation	e) Low-cost Housing
f) Project Management				f) SWAYAM / NPTEL / MOOCS COURSES (12 weeks duration)	f) SWAYAM / NPTEL / MOOCS COURSES (12 weeks duration)
g) Traffic Safety					
h) Geo-Spatial Technologies					
i) Waste Water Treatment					


 Principal
GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

COURSE STRUCTURE AND SYLLABUS

For

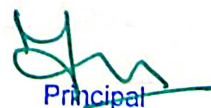
B. TECH ELECTRICAL AND ELECTRONICS ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

GIET ENGINEERING COLLEGE
NH-16, Chaitanya Knowledge City
RAJAHMUNDRY - 533 296



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1212	Fundamentals of Computers	3	0	0	3
5	ES1217	Electrical Circuit Analysis - I	3	0	0	3
6	ES1218	Electrical Engineering Workshop	0	0	3	1.5
7	BS1205	Applied Physics Lab	0	0	3	1.5
8	HS1203	Communication Skills Lab	0	1	2	2
9	PR1201	Engineering Exploration Project	0	0	2	1
Total Credits			15	1	10	21


 Principal
GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

II Year – I SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Electrical Circuit Analysis - II	EE	3	--	--	3
2		Electrical Machines-I	EE	3	--	--	3
3		Electronic Devices and Circuits	ES	3	--	--	3
4		Electro Magnetic Fields	EE	3	--	--	3
5		Thermal and Hydro Prime movers	ES	3	--	--	3
6		Managerial Economics & Financial Analysis	BS	3	--	--	3
7		Thermal and Hydro Laboratory	ES	--	--	3	1.5
8		Electrical Circuits Laboratory	EE	--	--	3	1.5
9		Essence of Indian Traditional Knowledge	MC	3	--	--	0
Total Credits				24	0	6	21

II Year – II SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Electrical Measurements & Instrumentation	EE	3	--	--	3
2		Electrical Machines-II	EE	3	--	--	3
3		Digital Electronics	ES	3	--	--	3
4		Control Systems	EE	3	--	--	3
5		Power Systems-I	EE	3	--	--	3
6		Signals and Systems	EE	3	--	--	3
7		Electrical Machines -I Laboratory	EE	--	--	3	1.5
8		Electronic Devices & Circuits Laboratory	EE	--	--	3	1.5
9		Professional Ethics and Human Values	MC	3	0	0	0
Total Credits				21	0	6	21


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

III Year – I SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Power Systems-II	EE	3	--	--	3
2		Power Electronics	EE	3	--	--	3
3		Linear IC Applications	ES	3	--	--	3
4		Digital Signal Processing	EE	3	--	--	3
5		Microprocessors and Microcontrollers	EE	3	--	--	3
6		Electrical Machines-II Laboratory	EE	--	--	3	1.5
7		Control Systems Laboratory	EE	--	--	2	1
8		Electrical Measurements & Instrumentation Laboratory	EE	--	--	3	1.5
9		Socially Relevant Projects	MC	--	--	1	1
Total Credits				15	0	9	20

III Year – II SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Electric Drives	EE	3	--	--	3
2		Power System Analysis	EE	3	--	--	3
3		Data Structures	ES	3	--	--	3
4		Digital Control Systems	EE	3	--	--	3
5		Elective - I	EL	3	--	--	3
6		Open Elective - I	OE	3	--	--	3
7		Power Electronics Laboratory	EE	--	--	3	1.5
8		Microprocessors & Microcontrollers Laboratory	EE	--	--	3	1.5
9		Employability Skills	MC	3	--	--	0
Total Credits				18		6	21


 CHAITANYA ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

IV Year – I SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Switchgear & Protection	EE	3	--	--	3
2		OOPs through JAVA	ES	3	--	--	3
3		Renewable Energy Systems	EE	3	--	--	3
4		Elective – II	EL	3	--	--	3
5		Elective - III	EL	3	--	--	3
6		Linear & Digital IC Applications Laboratory	ES	--	--	2	1
7		Power Systems& Simulation Laboratory	EE	--	--	2	1
		Industrial Training /Skill Development Programmes / Research Project	Project	--	--	2	1
8		Project-I	Project			4	2
Total Credits				15	0	10	20

IV Year – II SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Power System Operation & Control	EE	3	--	--	3
2		Open Elective - II	OE	3	--	--	3
3		Elective - IV	EL	3	--	--	3
4		Project-II	Project	--	--	16	8
Total Credits				09		16	17

BS – Basic Sciences
 HS – Humanity Sciences
 ES – Engineering Sciences

EE – Electrical Engineering
 OE – Open Elective
 EL – Elective
 Proj- Project
 MC–Mandatory Course


 Principal

GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

Elective – I:

1. Digital IC Applications
2. Communication Systems
3. Computer Networks
4. Internet of Things applications to Electrical Engineering
5. VLSI Design
6. Cloud Computing

Elective – II:

1. Utilization of Electrical Energy
2. Data Base Management System
3. Advanced Control Systems
4. Electrical Machine Design
5. Hybrid Electric Vehicles
6. Swayam Course

Elective – III:

1. Operating Systems
2. Neural Networks & Fuzzy Logic
3. High Voltage Engineering
4. Energy Auditing and Demand Side Management
5. Data Analytics with Python
6. Swayam Course

Elective – IV:

1. Electrical Distribution Systems
2. HVAC & DC Transmission
3. Flexible Alternating Current Transmission Systems
4. Power Quality
5. Smart Grid
6. Special Electrical Machines

Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

Open Electives offered by EEE Department for Other Branches(Except for EEE Branch)

Open Elective-I:

1. Renewable Energy Sources
2. Essentials of Analog and Digital Electronics
3. Electrical Estimation and Costing
4. Power Electronic Devices & Circuits
5. Fundamentals of Electrical Machines

Open Elective-II:

1. Measurements & Instrumentation
2. Fundamentals of Utilization of Electrical Energy
3. Concepts of Power System Engineering
4. Basics of Control Systems
5. Energy Audit

Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

B. TECH MECHANICAL ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

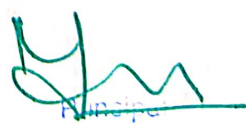
DEPARTMENT OF MECHANICAL ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1101	Mathematics – I	3	0	0	3
2	BS1102	Mathematics – II	3	0	0	3
3	BS1108	Engineering Physics	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1109	Engineering Physics Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1104	Constitution of India	2	0	0	0
Total Credits			15	0	12	19

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1201	English	3	0	0	3
2	BS1210	Engineering Chemistry	3	0	0	3
3	ES1204	Engineering Mechanics	3	0	0	3
4	ES1206	Basic Electrical & Electronics Engineering	3	0	0	3
5	ES1207	Computer Aided Engineering Drawing	1	0	3	2.5
6	HS1203	Communication Skills Lab	0	0	2	1
7	BS1211	Engineering Chemistry Lab	0	0	2	1.5
8	ES1208	Basic Electrical & Electronics Engineering Lab	0	0	3	1.5
9	ES1219	Workshop Practice Lab	0	0	3	1.5
10	PR1201	Engineering Exploration Project	0	0	2	1
Total Credits			13	0	15	21


GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

II YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	BSC	Vector Calculus & Fourier Transforms	3	--	--	3
2	PCC-ME	Mechanics of Solids	3	--	--	3
3	PCC-ME	Material Science & Metallurgy	3	--	--	3
4	PCC-ME	Production Technology	3	--	--	3
5	PCC-ME	Thermodynamics	3	--	--	3
6	PCC-ME	Machine Drawing	1	--	3	2.5
7	PCC-Lab1	Metallurgy & Mechanics of Solids Lab	--	--	3	1.5
8	PCC-Lab2	Production Technology Lab	--	--	3	1.5
9	MC2101	Environmental Science	3	--	--	--
10	PROJ-2101	Socially Relevant Project				0.5
		Total Credits	19	--	9	21

II YEAR II SEMESTER

S.No	Course Code	Course Title	L	T	P	Credits
1	BSC	Complex Variables & Statistical Methods	3	--	--	3
2	PCC-ME	Kinematics of Machinery	3	--	--	3
3	PCC-ME	Applied Thermodynamics	3	--	--	3
4	PCC-ME	Fluid Mechanics & Hydraulic Machines	3	--	--	3
5	PCC-ME	Metal Cutting & Machine Tools	3	--	--	3
6	PCC-ME	Design of Machine Members-I	3	--	--	3
7	PCC-Lab5	Fluid Mechanics & Hydraulic Machines Lab	--	--	3	1.5
8	PCC-Lab6	Machine Tools Lab	--	--	3	1.5
9	MC2201	Essence of Indian Traditional Knowledge	2	--	--	--
		Total Credits	20	--	6	21

[Signature]
Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

III YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	PCC-ME	Dynamics of Machinery	3	--	--	3
2	PCC-ME	Design of Machine Members-II	3	--	--	3
3	PCC-ME	Mechanical Measurements & Metrology	3	--	--	3
4	HSIMS	Managerial Economics and Financial Accountancy	3	--	--	3
5	PCC-ME	IC Engines & Gas turbines	3	--	--	3
6	PCC-Lab	Thermal Engineering Lab	--	--	3	1.5
7	PCC-Lab	Theory of Machines Lab	--	--	3	1.5
8	PCC-Lab	Mechanical Measurements & Metrology Lab	--	--	3	1.5
9	PROJ-3101	Socially Relevant Project				0.5
		Total Credits	15	--	9	20

III YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	PCC-ME	Operations Research	3	--	--	3
2	PCC-ME	Heat Transfer	3	--	--	3
3	PCC-ME	CAD/CAM	3	--	--	3
4	PEC-ME1	1.Composite Materials 2.Refrigeration & Air Conditioning 3. Unconventional Machining Processes 4. Advanced Mechanics of Solids 5.MOOCs(NPTEL/Swayam)	3	--	--	3
5	PEC-ME2	1. Material Characterization 2. Tribology 3. Automobile Engineering 4.Mechatronics 5.MOOCs(NPTEL/Swayam)	3	--	--	3
6	PCC-Lab	Simulation of Mechanical Systems Lab	--	--	2	1
7	PCC-Lab	Heat Transfer Lab	--	--	3	1.5
8	PCC-Lab	CAD /CAM Lab	--	--	3	1.5
9	PROJ- ME	Summer Internship*	--	--		1
		Total Credits	15	--	9	20

•The students have to undergo a summer internship for minimum of Four weeks duration from Industries/R&D/ Govt. Organizations after B.Tech III year II-Semester and credits will be awarded in B.Tech IV year I-Semester after evaluation.


 Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

IV YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	HSIMS	Industrial Management	3	--	--	3
2	PCC-ME	Finite Element Methods	3	--	--	3
3	PEC-3	1.Mechanical Vibrations 2. Renewable Energy Sources 3. Production Planning & Control 4. Machine Tool Design 5. MOOCs (NPTEL/Swayam)	3	--	--	3
4	PEC-4	1. Industrial Automation and Robotics 2. Micro and Nano manufacturing 3. Power Plant Engineering 4. Optimization Techniques 5. MOOCs (NPTEL/Swayam)	3	--	--	3
5	OEC-1	OPEN ELECTIVE -I	3	--	--	3
6	PCC-ME Lab	Finite Element Simulation Lab	--	--	2	1
7	PROJ-I	Project-I	--	--	4	2
		Total Credits	15	--	6	18

OPEN ELECTIVE -I:

1. MEMS
2. Optimization Methods
3. Operations Management
4. Nano Technology
5. Finite Element Analysis


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF MECHANICAL ENGINEERING
IV YEAR II SEMESTER (VIII SEMESTER)

S. No.	Course Code	Course Title	L	T	P	Credits
1	PEC-5	1.Additive Manufacturing 2.Gas Dynamics and Jet Propulsion 3. Product design and development 4. Reliability Engineering 5. MOOCs (NPTEL/Swayam)	3	--	--	3
2	PEC-6	1.Condition Monitoring 2.Computational Fluid Dynamics 3.Non Destructive Evaluation 4. Control Systems 5. Entrepreneurship Development	3	--	--	3
3	OEC-2	OPEN ELECTIVE -II	3	--	--	3
4	OEC-3	OPEN ELECTIVE -III	3	--	--	3
5	PROJ-II	Project-II	--	--	16	8
		Total Credits	12	--	16	20

OPEN ELECTIVE-II:

1. Green Energy Systems
2. Robotics
3. Energy Consumption and Management
4. 3D Printing Technologies
5. Mechatronics

OPEN ELECTIVE-III:

1. Total Quality Management
2. Supply Chain Management
3. Product Design & Development
4. Entrepreneurship
5. Advanced Materials

Note:

- 1) Professional Elective course (PEC) /Open Elective course (OEC) can also be completed via MOOCs (NPTEL/Swayam) Course (12 Week duration)
- 2) The list of MOOCs courses shall be approved by the chairperson of BOS.
- 3) The tutorial class can be of one hour duration as per requirements of a particular subject.

Principal

**GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.**



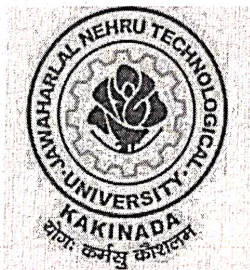
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

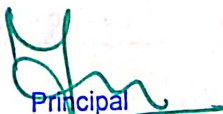
B. TECH ELECTRONICS AND COMMUNICATION ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



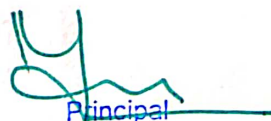
JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – IISEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1209	Network Analysis	3	0	0	3
5	ES1211	Basic Electrical Engineering	3	0	0	3
6	ES1215	Electronic workshop	0	0	2	1
7	ES1208	Basic Electrical Engineering Lab	0	0	3	1.5
8	BS1205	Applied Physics Lab	0	0	3	1.5
9	HS1203	Communication Skills Lab	0	0	2	1
10	PR1201	Engineering Exploration Project	0	0	2	1
			15	0	12	21


 Principal

GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

II Year – I Semester

S. No.	Course	Category	L	T	P	Credits
1	Electronic Devices and Circuits	PC	3	0	0	3
2	Switching Theory and Logic Design	PC	3	0	0	3
3	Signals and Systems	PC	3	0	0	3
4	Random Variables and Stochastic Processes	PC	3	0	0	3
5	Object Oriented Programming through Java	ES	3	0	0	3
6	Managerial Economics & Financial Analysis	HS	3	0	0	3
7	Electronic Devices and Circuits - Lab	LC	0	0	3	1.5
8	Switching Theory and Logic Design - Lab	LC	0	0	3	1.5
9	Constitution of India	MC	3	0	0	0
			Sub-Total			21

II Year – II Semester

S. No.	Course	Category	L	T	P	Credits
1	Electronic Circuit Analysis	PC	3	0	0	3
2	Linear Control Systems	PC	3	0	0	3
3	Electromagnetic Waves and Transmission Lines	PC	3	0	0	3
4	Analog Communications	PC	3	0	0	3
5	Computer Architecture and Organization	ES	3	0	0	3
6	Management and Organizational Behavior	HS	3	0	0	3
7	Electronic Circuit Analysis - Lab	LC	0	0	3	1.5
8	Analog Communications - Lab	LC	0	0	3	1.5
			Sub-Total			21

GIET ENGINEERING COLLEGE,
NH-16, CHAITANYA KNOWLEDGE CITY,
RAJAHMUNDRY - 533 296.

Principal
GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

III Year – I Semester

S. No.	Course	Category	L	T	P	Credits
1	Linear Integrated Circuits and Applications	PC	3	0	0	3
2	Microprocessor and Microcontrollers	PC	3	0	0	3
3	Digital Communications	PC	3	0	0	3
4	Electronic Measurements & Instrumentation	PC	3	0	0	3
5	Professional Elective (PE 1)	PE	3	0	0	3
6	Linear Integrated Circuits and Applications - Lab	LC	0	0	3	1.5
7	Digital Communications Lab	LC	0	0	3	1.5
8	Microprocessor and Microcontrollers - Lab	LC	0	0	3	1.5
9	Mini Project with Hardware Development	PR	0	0	3	1.5
10	Essence of Indian Traditional Knowledge	MC	3	0	0	0
			Sub-Total			21

III Year – IISemester

S. No.	Course	Category	L	T	P	Credits
1	Wired and Wireless Transmission Devices	PC	3	0	0	3
2	VLSI Design	PC	3	0	0	3
3	Digital Signal Processing	PC	3	0	0	3
4	Professional Elective (PE2)	PE	3	0	0	3
5	Open Elective (OE1)	OE	3	0	0	3
6	Internet of Things	PC	3	0	0	3
7	VLSI Lab	LC	0	0	3	1.5
8	Digital Signal Processing Lab	LC	0	0	3	1.5
9	Intellectual Property Rights (IPR) & Patents	MC	3	0	0	0
			Sub-Total			21


 Principal

GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IV Year – I Semester

S. No.	Course	Category	L	T	P	Credits
1	Microwave and Optical Communication Engineering	PC	3	0	0	3
2	Data Communications & Computer networks	PC	3	0	0	3
3	Digital Image and Video Processing	PC	3	0	0	3
4	Professional Elective (PE3)	PE	3	0	0	3
5	Professional Elective (PE4)	PE	3	0	0	3
6	Internet of Things Lab	LC	0	0	3	1.5
7	Microwave and Optical Communication Engineering LAB	LC	0	0	3	1.5
8	Project - Part I	PR	0	0	6	3
			Sub-Total			21

IV Year – II Semester

S. No.	Course	Category	L	T	P	Credits
1	Professional Elective (PE5)	PE	3	0	0	3
2	Open Elective (OE2)	OE	3	0	0	3
3	Project - Part II	PR	0	0	18	9
			Sub-Total			15
			Total			160


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

GIET ENGINEERING COLLEGE
 NH-16, Chaitanya Knowledge City
 RAJAHMUNDRY - 533 296



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROFESSIONAL ELECTIVES 1:

1. Information Theory & Coding
2. Digital System Design using HDL
3. Data structures and Algorithms
4. Soft computing techniques and Python programming
5. Simulation & Mathematical Modeling

PROFESSIONAL ELECTIVES 2:

1. Cellular & Mobile Communication
2. Digital IC Design
3. Business Intelligence & Analytics
4. Pattern Recognition
5. Robotics and Automation

PROFESSIONAL ELECTIVES 3:

1. Communication Standards and Protocols
2. Analog IC Design
3. Smart Sensors
4. Advanced Digital Signal Processing
5. Augmented Reality

PROFESSIONAL ELECTIVES 4:

1. Software Radio
2. Low power VLSI Design
3. Embedded Systems
4. DSP processors and Architectures
5. Multi Media Communication

PROFESSIONAL ELECTIVES 5:

1. Wireless Communication
2. VLSI Testing & Testability
3. Machine Learning & Artificial Intelligence
4. Speech Processing
5. Industrial Internet of Things

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

OPEN ELECTIVES FOR ECE:

Open Elective 1:

1. DataMining
2. PowerElectronics
3. MEMS and itsapplications
4. Artificial NeuralNetworks

Open Elective 2:

1. 3D Printing
2. Block chainTechnology
3. Cyber Security &Cryptography

OPEN ELECTIVES OFFERED BY ECE:

- OE 1 Principles of communication
OE 2 Embedded Systems

Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



R-19 Syllabus for CSE. JNTUK w. e. f. 2019-20

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

B. Tech COMPUTER SCIENCE &ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

GIET ENGINEERING COLLEGE
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE - R19

I Year – I SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1112	Fundamentals of Computer Science	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1105	IT Workshop	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – II SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1201	Programming for Problem Solving using C	3	0	0	3
5	ES1213	Digital Logic Design	3	0	0	3
6	BS1205	Applied Physics Lab	0	0	3	1.5
7	HS1203	Communication Skills Lab	0	1	2	2
8	ES1202	Programming for Problem Solving using C Lab	0	0	3	1.5
9	PR1201	Engineering Exploration Project	0	0	2	1
10	MC1204	Constitution of India	3	0	0	0
Total Credits			18	1	10	21


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

II Year – I SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	CS2101	Mathematical Foundations of Computer Science	3	1	0	4
2	CS2102	Software Engineering	3	0	0	3
3	ES2101	Python Programming	3	0	0	3
4	CS2103	Data Structures	3	0	0	3
5	CS2104	Object Oriented Programming through C++	3	0	0	3
6	CS2105	Computer Organization	3	0	0	3
7	ES2102	Python Programming Lab	0	0	3	1.5
8	CS2106	Data Structures through C++ Lab	0	0	3	1.5
9	MC2101	Essence of Indian Traditional Knowledge	2	0	0	0
10	MC2102	Employability Skills- I*	2	0	0	0
Total			23	1	6	22
*Internal Evaluation through Seminar / Test for 50 marks						

II Year – II SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	BS2201	Probability and Statistics	3	0	0	3
2	CS2201	Java Programming	2	1	0	3
3	CS2202	Operating Systems	3	0	0	3
4	CS2203	Database Management Systems	3	1	0	4
5	CS2204	Formal Languages and Automata Theory	3	0	0	3
6	CS2205	Java Programming Lab	0	0	3	1.5
7	CS2206	UNIX Operating System Lab	0	0	2	1
8	CS2207	Database Management Systems Lab	0	0	3	1.5
9	MC2201	Professional Ethics & Human Values	3	0	0	0
10	PR2201	Socially Relevant Project*	0	0	2	1
Total			17	2	10	21
*Internal Evaluation through Seminar for 50 marks						


Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

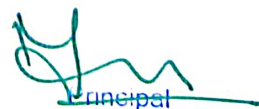
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

III Year – I SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	CS3101	Data Warehousing and Data Mining	3	0	0	3
2	CS3102	Computer Networks	3	0	0	3
3	CS3103	Compiler Design	3	0	0	3
4	CS3104	Artificial Intelligence	3	0	0	3
5	PE3101	Professional Elective- I 1. Computer Graphics 2. Principles of Programming Languages 3. Advanced Data Structures 4. Software Testing Methodologies 5. Advanced Computer Architecture	3	0	0	3
6	CS3105	Computer Networks Lab	0	0	2	1
7	CS3106	AI Tools & Techniques Lab	0	0	3	1.5
8	CS3107	Data Mining Lab	0	0	3	1.5
9	MC3101	Employability Skills -II*	2	0	0	0
Total			17	0	8	19
*Internal Evaluation through Seminar / Test for 50 marks						

III Year – II SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	CS3201	Web Technologies	3	0	0	3
2	CS3202	Distributed Systems	3	0	0	3
3	CS3203	Design and Analysis of Algorithms	3	0	0	3
4	PE3201	Professional Elective -II (NPTEL/SWAYAM) Duration: 12 Weeks Minimum *Course/subject title can't be repeated	3	0	0	3
5	OE3201	Open Elective- I (Inter Disciplinary)	3	0	0	3
6	HS3201	Managerial Economics and Financial Accountancy	3	0	0	3
7	CS3204	Web Technologies Lab	0	0	4	2
9	PR3201	Industrial Training / Skill Development Programmes / Research Project in higher learning institutes	0	0	0	1
Total			18	0	4	21


Principal

GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
IV Year – I SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	CS4101	Cryptography and Network Security	3	0	0	3
2	CS4102	UML & Design Patterns	3	0	0	3
3	CS4103	Machine Learning	3	0	0	3
4	OE4101	Open Elective -II (Inter Disciplinary)	3	0	0	3
5	PE4101	Professional Elective- III 1. Mobile Computing 2. Data Science 3. NoSQL Databases 4. Internet of Things 5. Software Project Management	3	0	0	3
6	PE4102	Professional Elective- IV 1. Web Services 2. Cloud Computing 3. Mean Stack Technologies 4. Ad-hoc and Sensor Networks 5. Cyber Security & Forensics	3	0	0	3
7	CS4104	UML Lab #	0	0	2	1
8	PR4101	Project- I	0	0	0	2
9	MC4101	IPR & Patents	3	0	0	0
Total			21	0	2	21
# Relevant theory to be taught in the lab						

IV Year – II SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	HS4201	Management and Organizational Behavior	3	0	0	3
2	OE4201	Open Elective- III (Inter Disciplinary)	3	0	0	3
3	PE4201	Professional Elective-V 1. Deep Learning 2. Quantum Computing 3. DevOps 4. Blockchain Technologies 5. Big Data Analytics	3	0	0	3
4	PR4201	Project- II	0	0	0	7
Total			9	0	0	16


 Principal
GIET ENGINEERING COLLEGE,
 NH-16, Chaitanya Knowledge City,
 RAJAHMUNDRY - 533 296.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Open Electives to be offered by CSE for Other Branches:

Open Elective I: 1. Data Structures 2. Java Programming 3. Data Base Management Systems 4. C++ Programming 5. Operating Systems 6. Internet of Things	Open Elective II: 1. Problem Solving using Python 2. Web Technologies 3. Machine Learning 4. Distributed Computing 5. AI Tools & Techniques 6. Data Science
Open Elective III: 1. Big Data 2. Image Processing 3. Mobile Application Development 4. Cyber Security 5. Deep Learning 6. Blockchain Technologies	

Principal

GIET ENGINEERING COLLEGE,
NH-16, Chaitanya Knowledge City,
RAJAHMUNDRY - 533 296.

COURSE STRUCTURE AND SYLLABUS

For

CIVIL ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

III Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Management Science	4	--	--	3
2	Engineering Geology	4	--	--	3
3	Structural Analysis -II	4	--	--	3
4	Design & Drawing of Reinforced Concrete Structures	4	2	--	3
5	Transportation Engineering - II	4	--	--	3
6	Concrete Technology Lab	--	--	3	2
7	Geology Lab	--	--	3	2
8	Transportation Engineering Lab	--	--	3	2
Total Credits					21

III Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Design & Drawing of Steel Structures	4	2	--	3
2	Geotechnical Engineering - I	4	--	--	3
3	Environmental Engineering -I	4	--	--	3
4	Water Resource Engineering -I	4	--	--	3
5	OPEN ELECTIVE i. Electronic Instrumentation ii. Data Base Management Systems iii. Alternative Energy Sources iv. Waste water Management v. Fundamentals of Liquefied Natural Gas vi. Green Fuel Technologies	4	--	--	3
6	Geotechnical Engineering Lab	--	--	3	2
7	Environmental Engineering Lab	--	--	3	2
8	Computer Aided Engineering Lab	--	--	3	2
Total Credits					21

IV Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Environmental Engineering - II	4	--	--	3
2	Water Resource Engineering - II	4	--	--	3
3	Geotechnical Engineering - II	4	--	--	3
4	Remote Sensing & GIS Applications	4	--	--	3
5	Elective I i. Finite Element Methods ii. Ground Improvement Techniques iii. Air Pollution & Control iv. Urban Hydrology v. Traffic Engineering	4	--	--	3
6	Elective II i. Advanced Structural Engineering ii. Advanced Foundation Engineering iii. Environmental Impact Assessment & Management iv. Ground Water Development v. Pavement Analysis and Design	4	--	--	3
7	IPR & Patents	--	2	--	--
8	GIS & CAD Lab	--	--	2	2
9	Irrigation Design & Drawing	--	--	2	2
Total Credits					22

IV Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Estimation Specification & Contracts	4	--	--	3
2	Construction Technology & Management	4	--	--	3
3	Prestressed Concrete	4	--	--	3
4	Elective III i. Bridge Engineering ii. Soil Dynamics and Foundations iii. Solid and Hazardous Waste Management iv. Water Resources Systems Planning v. Urban Transportation Planning Engg	4	--	--	3
5	Seminar on Internship Project	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180

SYLLABUS

COURSE STRUCTURE AND SYLLABUS

For

ELECTRICAL AND ELECTRONICS ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

III Year – I Semester

S. No	Subjects	L	T	P	Credits
1	Power Systems-II	4	--	--	3
2	Renewable Energy Sources	4	--	--	3
3	Signals and Systems	4	--	--	3
4	Pulse & Digital Circuits	4	--	--	3
5	Power Electronics	4	--	--	3
6	Electrical Machines-II Laboratory	--	--	3	2
7	Control Systems Laboratory	--	--	3	2
8	Electrical Measurements Laboratory	--	--	3	2
9-MC	IPR & Patents	--	2	--	--
Total Credits					21

III Year – II Semester

S. No	Subjects	L	T	P	Credits
1	Power Electronic Controllers & Drives	4	--	--	3
2	Power System Analysis	4	--	--	3
3	Micro Processors and Micro controllers	4	--	--	3
4	Data Structures	4	--	--	3
5	Open Elective 1. Unix and Shell Programming 2. OOPS Through JAVA 3. VLSI Design 4. Robotics 5. Neural Networks & Fuzzy Logic 6. Energy Audit and Conservation & Management	4	--	--	3
6	Power Electronics Laboratory	--	--	3	2
7	Microprocessors & Microcontrollers Laboratory	--	--	3	2
8	Data Structures Laboratory	--	--	3	2
9-MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

IV Year – I Semester

S. No	Subjects	L	T	P	Credits
1	Utilization of Electrical Energy	4	--	--	3
2	Linear IC Applications	4	--	--	3
3	Power System Operation & Control	4	--	--	3
4	Switchgear and Protection	4	--	--	3
5	Elective – I: 1. Electrical Machine Modeling and Analysis 2. Advanced Control Systems 3. Programmable Logic Controllers & Applications 4. Instrumentation	4	--	--	3
6	Elective – II: 1. Optimization Techniques 2. Electric Power Quality 3. Special Electrical Machines	4	--	--	3
7	Electrical Simulation Laboratory	--	--	2	2
8	Power Systems & Simulation Laboratory	--	--	2	2
Total Credits					22

IV Year - II Semester

S. No	Subjects	L	T	P	Credits
1	Digital Control Systems	4	--	--	3
2	HVDC Transmission	4	--	--	3
3	Electrical Distribution Systems	4	--	--	3
4	Elective – III: 1. High Voltage Engineering 2. Flexible Alternating Current Transmission Systems 3. Power System Reforms	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

COURSE STRUCTURE AND SYLLABUS

For

MECHANICAL ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

III Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Dynamics of Machinery	4	--	--	3
2	Metal Cutting & Machine Tools	4	--	--	3
3	Design of Machine Members–II	4	--	--	3
4	Operations Research	4	--	--	3
5	Thermal Engineering -II	4	--	--	3
6	Theory of Machines Lab	--	--	3	2
7	Machine Tools Lab	--	--	3	2
8	Thermal Engineering Lab	--	--	3	2
9	IPR & Patents	--	2	--	--
Total Credits					21

III YEAR - II Semester

S. No.	Subjects	L	T	P	Credits
1	Metrology	4	--	--	3
2	Instrumentation & Control Systems	4	--	--	3
3	Refrigeration & Air-conditioning	4	--	--	3
4	Heat Transfer	4	--	--	3
5	OPEN ELECTIVE 1. Entrepreneurship 2. Data Base Management System 3. Waste Water Management 4. Computer Graphics 5. Industrial Robotics 6. Green Engineering Systems	4	--	--	3
6	Heat Transfer Lab	--	--	3	2
7	Metrology & Instrumentation Lab	--	--	3	2
8	Computational Fluid Dynamics Lab	--	--	3	2
9MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

IV Year - I Semester

S. NO	Subjects	L	T	P	Credits
1	Mechatronics	4	--	--	3
2	CAD/CAM	4	--	--	3
3	Finite Element Methods	4	--	--	3
4	Power Plant Engineering	4	--	--	3
5	Elective I 1. Computational Fluid Dynamics 2. Condition Monitoring 3. Additive Manufacturing	4	--	--	3
6	Elective II 1. Advanced Materials 2. Design for Manufacture 3. Gas Dynamics & Jet Propulsion	4	--	--	3
7	CAD/CAM Lab	--	--	2	2
8	Mechatronics Lab	--	--	2	2
Total Credits					22

IV Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Production Planning and Control	4	--	--	3
2	Unconventional Machining Processes	4	--	--	3
3	Automobile Engineering	4	--	--	3
4	Elective III 1. Thermal Equipment Design 2. Non Destructive Evaluation 3. Quality and Reliability Engineering	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180

COURSE STRUCTURE AND SYLLABUS

For

ELECTRONICS AND COMMUNICATION ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

III Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Computer Architecture and Organization	4	--	--	3
2	Linear I C Applications	4	--	--	3
3	Digital I C Applications	4	--	--	3
4	Digital Communications	4	--	--	3
5	Antenna and Wave Propagation	4	--	--	3
6	Pulse and Digital Circuits Lab	--	--	3	2
7	Linear I C Applications Lab	--	--	3	2
8	Digital I C Applications Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

III Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Micro Processors & Micro Controllers	4	--	--	3
2	Micro Wave Engineering	4	--	--	3
3	VLSI Design	4	--	--	3
4	Digital Signal Processing	4	--	--	3
5	OPEN ELECTIVE 1. OOPs through Java 2. Data Mining 3. Industrial Robotics 4. Power Electronics 5. Bio-Medical Engineering 6. Artificial Neural Networks	4	--	--	3
6	Micro Processors & Micro Controllers Lab	--	--	3	2
7	VLSI Lab	--	--	3	2
8	Digital Communications Lab	--	--	3	2
MC	IPR & Patents	--	2	--	--
Total Credits					21

IV Year - I Semester

S.No.	Subjects	L	T	P	Credits
1	Radar Systems	4	--	--	3
2	Digital Image Processing	4	--	--	3
3	Computer Networks	4	--	--	3
4	Optical Communications	4	--	--	3
5	Elective I 1. TV Engineering 2. Electronic Switching Systems 3. System Design through Verilog	4	--	--	3
6	Elective II 1. Embedded Systems 2. Analog IC Design 3. Network Security & Cryptography	4	--	--	3
7	Micro Wave Engineering & Optical Lab	--	--	2	2
8	Digital Signal Processing Lab	--	--	2	2
Total Credits					22

IV Year - II Semester

S.No.	Subjects	L	T	P	Credits
1	Cellular Mobile Communications	4	--	--	3
2	Electronic Measurements and Instrumentation	4	--	--	3
3	Satellite Communications	4	--	--	3
4	Elective III 1. Wireless sensors & Networks 2. Digital IC Design 3. Operating Systems	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180

COURSE STRUCTURE AND SYLLABUS

For

COMPUTER SCIENCE AND ENGINEERING

(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

III Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Compiler Design	4	--	--	3
2	Unix Programming	4	--	--	3
3	Object Oriented Analysis and Design using UML	4	--	--	3
4	Database Management Systems	4	--	--	3
5	Operating Systems	4	--	--	3
6	Unified Modeling Lab	--	--	3	2
7	Operating System & Linux Programming Lab	--	--	3	2
8	Database Management System Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

III Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Computer Networks	4	2	--	3
2	Data Warehousing and Mining	4	--	--	3
3	Design and Analysis of Algorithms	4	--	--	3
4	Software Testing Methodologies	4	--	--	3
5	Open Elective: i. Artificial Intelligence ii. Internet of Things iii. Cyber Security iv. Digital Signal Processing v. Embedded Systems vi. Robotics	4	--	--	3
6	Network Programming Lab	--	--	3	2
7	Software Testing Lab	--	--	3	2
8	Data Warehousing and Mining Lab	--	--	3	2
9	IPR & Patents	--	2	--	--
Total Credits					21

IV Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Cryptography and Network Security	4	--	--	3
2	Software Architecture & Design Patterns	4	--	--	3
3	Web Technologies	4	--	--	3
4- HS	Managerial Economics and Financial Analysis	4	--	--	3
5	Elective-I i. Big Data Analytics ii. Information Retrieval Systems iii. Mobile Computing	4	--	--	3
6	Elective-II i. Cloud Computing ii. Software Project Management iii. Scripting Languages	4	--	--	3
7	Software Architecture& Design Patterns Lab	--	--	3	2
8	Web Technologies Lab	--	--	3	2
Total Credits					22

IV Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Distributed Systems	4	--	--	3
2- HS	Management Science	4	--	--	3
3	Machine Learning	4	--	--	3
4	Elective-III i. Concurrent and Parallel Programming ii. Artificial Neural Networks iii. Operations Research	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total Credits					24

Total Course Credits = 48+44 + 42 + 46 = 180

COURSE STRUCTURE AND SYLLABUS
FOR
INFORMATION TECHNOLOGY
(Applicable for batches admitted from 2016-2017)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

III Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Human Computer Interaction	4	--	--	3
2	Unix and Shell Programming	4	--	--	3
3	Advanced Java Programming	4	--	--	3
4	Database Management Systems	4	--	--	3
5	Operating Systems	4	--	--	3
6	Advanced Java Programming Lab	--	--	--	2
7	Unix and Operating Systems Lab	--	--	3	2
8	Database Management System Lab	--	--	3	2
MC	Professional Ethics & Human Values	--	3	--	--
Total Credits					21

III Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Computer Networks	4	--	--	3
2	Data Mining	4	--	--	3
3	Web Technologies	4	--	--	3
4	Software Testing Methodologies	4	--	--	3
5	Open Elective: i. Artificial Intelligence ii. Social Networks and Semantic Web iii. Digital Signal Processing iv. Embedded Systems v. Robotics vi. Operations Research	4	--	--	3
6	Web Technologies Lab	--	--	3	2
7	Software Testing Lab	--	--	3	2
8	Data Mining Lab	--	--	3	2
9	IPR & Patents	--	2	--	--
Total Credits					21

IV Year - I Semester

S. No.	Subjects	L	T	P	Credits
1	Cryptography and Network Security	4	--	--	3
2	Mobile Computing	4	--	--	3
3	Data Ware Housing and Business Intelligence	4	--	--	3
4- HS	Managerial Economics and Financial Analysis	4	--	--	3
5	Elective-I i. Big Data Analytics ii. Information Retrieval Systems iii. Internet of Things iv. Multimedia Programming	4	--	--	3
6	Elective-II i. Cloud Computing ii. Software Project Management iii. Machine Learning iv. Decision Support System	4	--	--	3
7	Mobile Computing Lab	--	--	3	2
8	Cryptography and Network Security Lab	--	--	3	2
Total Credits					22

IV Year - II Semester

S. No.	Subjects	L	T	P	Credits
1	Distributed Systems	4	--	--	3
2- HS	Management Science	4	--	--	3
3	Management Information System	4	--	--	3
4	Elective-III i. Concurrent and Parallel Programming ii. Cyber Security iii. Artificial Neural Networks iv. Software Quality Assurance	4	--	--	3
5	Seminar	--	3	--	2
6	Project	--	--	--	10
Total credits					24

Total Course Credits = 48+44 + 42 + 46 = 180



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

B. TECH CIVIL ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1101	Mathematics – I	3	0	0	3
2	BS1102	Mathematics – II	3	0	0	3
3	BS1108	Engineering Physics	3	0	0	3
4	ES1104	Engineering Mechanics	3	1	0	4
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1109	Engineering Physics Lab	0	0	3	1.5
8	PR1101	Engineering Exploration Project	0	0	2	1
Total Credits			16	0	12	19.5

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1201	English	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1210	Engineering Chemistry	3	0	0	3
4	ES1201	Programming for problem Solving Using C	3	0	0	3
5	ES1207	Computer Aided Engineering Drawing	1	0	3	2.5
6	ES1202	Programming for problem Solving Using C Lab	0	0	3	1.5
7	BS1211	Engineering Chemistry Lab	0	0	3	1.5
8	HS1203	Communications Skills Lab	0	0	3	1.5
9	ES1219	Workshop Practice Lab	0	0	3	1.5
10	MC1201	Environmental Science	3	0	0	0
Total Credits			15	0	11	20.5



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

II YEAR: I- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	BS301	Complex Variables and Statistical Methods	3	0	0	3
2	PC301	Strength of Materials-I	3	0	0	3
3	PC302	Fluid Mechanics	3	0	0	3
4	ES301	Surveying and Geometrics'	3	0	0	3
5	PC303	Building Materials, Construction and Planning	3	0	0	3
6	PC304	Transportation Engineering-I	3	0	0	3
7	PC305	Strength of Materials Lab	0	0	3	1.5
8	PC306	Surveying Field Work – I	0	0	3	1.5
9	MC301	Constitution of India	2	0	0	0
		Total Credits				21

II YEAR: II- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC401	Strength of Materials-II	3	0	0	3
2	PC402	Hydraulics and Hydraulic Machinery	3	0	0	3
3	ES401	Engineering Geology	3	0	0	3
4	PC403	Transportation Engineering - II	3	0	0	3
5	PC404	Environmental Engineering - I	3	0	0	3
6	PC405	Engineering Geology Lab	0	0	2	1
7	PC406	Transportation Engineering Lab	0	0	3	1.5
8	PC407	Fluid Mechanics & Hydraulics Machinery Lab	0	0	3	1.5
9	MC401	Essence of Indian Traditional Knowledge/ Professional Ethics and Human Values	2	0	0	0
		Total Credits				19



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

III YEAR: I- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC501	Structural Analysis	3	0	0	3
2	PC502	Concrete Technology	2	0	0	2
3	PC503	Water Resources Engineering - I	3	0	0	3
4	PC504	Environmental Engineering - II	3	0	0	3
5	PE501	Program Elective – I	3	0	0	3
6	OE501	Open Elective – I	3	0	0	3
7	PC506	Concrete Technology Lab	0	0	3	1.5
8	PC507	Surveying Field Work - II	0	0	3	1.5
		Total Credits				20

III YEAR: II- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC601	Design & Drawing of Reinforced Concrete Structures	3	0	0	3
2	PC602	Water Resources Engineering – II	3	0	0	3
3	PC603	Geotechnical Engineering - I	3	0	0	3
4	HS601	Managerial Economics & Financial Accountancy	3	0	0	3
5	PE601	Program Elective – II	3	0	0	3
6	OE601	Open Elective – II	3	0	0	3
7	PC604	CAD Lab	0	0	3	1.5
8	PC605	Environmental Engineering Lab	0	0	3	1.5
9	PR601	Socially Relevant Project	0	0	2	1
10	MC601	Employability Skills	0	0	2	0
		Total Credits				22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

IV YEAR: I- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC701	Design & Drawing of Steel Structures	3	0	0	3
2	PC702	Geotechnical Engineering - II	3	0	0	3
3	PC703	Remote Sensing & GIS	3	0	0	3
4	PE701	Program Elective – III	3	0	0	3
5	OE701	Open Elective – III	3	0	0	3
6	PC704	Remote Sensing & GIS Lab	0	0	3	1.5
7	PC705	Geotechnical Engineering Lab	0	0	3	1.5
8	PR701	Industrial Training/ Internship or Seminar	0	0	3	1
9	PR702	Project Work Phase-I	0	0	4	2
Total Credits						21

IV YEAR: II- SEMESTER

Sl. No.	Course Code	Course Title	L	T	P	Credits
1	PC801	Estimation Specifications and Contract	3	0	0	3
2	PE801	Program Elective - IV	3	0	0	3
3	PE802	Program Elective – V	3	0	0	3
4	PR801	Project Work Phase-II	0	0	16	8
Total Credits						17



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF CIVIL ENGINEERING

Open Electives	Professional Elective-I	Professional Elective-II	Professional Elective-III	Professional Elective-IV	Professional Elective-V
a) Disaster Management	a) Repair & Rehabilitation of Buildings	a) Pre-stressed Concrete	a) Bridge Engineering	a) Finite Element Methods	a) Advanced Structural Analysis
b) Environmental Pollution & Control	b) Environmental Impact Assessment	b) Watershed Management	b) Industrial Waste Water Treatment	b) Design & Drawing of Irrigation Structures	b) Urban Hydrology
c) Elements of Civil Engineering	c) Reinforced Soil Structures	c) Advanced Foundation Engineering	c) Earth & Rock-fill Dams	c) Soil Dynamics and Machine Foundations	c) Ground Improvement Techniques
d) Green Technology	d) Traffic Engineering	d) Urban Transportation Planning	d) Intelligent Transportation Systems	d) Road Safety Engineering	d) Pavement Management Systems
e) Smart Cities	e) Construction Technology & Management	e) Architecture Town Planning	e) Building Services	e) Disaster Management & Mitigation	e) Low-cost Housing
f) Project Management				f) SWAYAM / NPTEL / MOOCS COURSES (12 weeks duration)	f) SWAYAM / NPTEL / MOOCS COURSES (12 weeks duration)
g) Traffic Safety					
h) Geo-Spatial Technologies					
i) Waste Water Treatment					



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

COURSE STRUCTURE AND SYLLABUS

For

B. TECH ELECTRICAL AND ELECTRONICS ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1212	Fundamentals of Computers	3	0	0	3
5	ES1217	Electrical Circuit Analysis - I	3	0	0	3
6	ES1218	Electrical Engineering Workshop	0	0	3	1.5
7	BS1205	Applied Physics Lab	0	0	3	1.5
8	HS1203	Communication Skills Lab	0	1	2	2
9	PR1201	Engineering Exploration Project	0	0	2	1
Total Credits			15	1	10	21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

II Year – I SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Electrical Circuit Analysis - II	EE	3	--	--	3
2		Electrical Machines-I	EE	3	--	--	3
3		Electronic Devices and Circuits	ES	3	--	--	3
4		Electro Magnetic Fields	EE	3	--	--	3
5		Thermal and Hydro Prime movers	ES	3	--	--	3
6		Managerial Economics & Financial Analysis	BS	3	--	--	3
7		Thermal and Hydro Laboratory	ES	--	--	3	1.5
8		Electrical Circuits Laboratory	EE	--	--	3	1.5
9		Essence of Indian Traditional Knowledge	MC	3	--	--	0
Total Credits				24	0	6	21

II Year – II SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Electrical Measurements & Instrumentation	EE	3	--	--	3
2		Electrical Machines-II	EE	3	--	--	3
3		Digital Electronics	ES	3	--	--	3
4		Control Systems	EE	3	--	--	3
5		Power Systems-I	EE	3	--	--	3
6		Signals and Systems	EE	3	--	--	3
7		Electrical Machines -I Laboratory	EE	--	--	3	1.5
8		Electronic Devices & Circuits Laboratory	EE	--	--	3	1.5
9		Professional Ethics and Human Values	MC	3	0	0	0
Total Credits				21	0	6	21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

III Year – I SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Power Systems-II	EE	3	--	--	3
2		Power Electronics	EE	3	--	--	3
3		Linear IC Applications	ES	3	--	--	3
4		Digital Signal Processing	EE	3	--	--	3
5		Microprocessors and Microcontrollers	EE	3	--	--	3
6		Electrical Machines-II Laboratory	EE	--	--	3	1.5
7		Control Systems Laboratory	EE	--	--	2	1
8		Electrical Measurements & Instrumentation Laboratory	EE	--	--	3	1.5
9		Socially Relevant Projects	MC	--	--	1	1
Total Credits				15	0	9	20

III Year – II SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Electric Drives	EE	3	--	--	3
2		Power System Analysis	EE	3	--	--	3
3		Data Structures	ES	3	--	--	3
4		Digital Control Systems	EE	3	--	--	3
5		Elective - I	EL	3	--	--	3
6		Open Elective - I	OE	3	--	--	3
7		Power Electronics Laboratory	EE	--	--	3	1.5
8		Microprocessors & Microcontrollers Laboratory	EE	--	--	3	1.5
9		Employability Skills	MC	3	--	--	0
Total Credits				18		6	21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

IV Year – I SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Switchgear & Protection	EE	3	--	--	3
2		OOPs through JAVA	ES	3	--	--	3
3		Renewable Energy Systems	EE	3	--	--	3
4		Elective – II	EL	3	--	--	3
5		Elective - III	EL	3	--	--	3
6		Linear & Digital IC Applications Laboratory	ES	--	--	2	1
7		Power Systems& Simulation Laboratory	EE	--	--	2	1
		Industrial Training /Skill Development Programmes / Research Project	Project	--	--	2	1
8		Project-I	Project			4	2
Total Credits				15	0	10	20

IV Year – II SEMESTER

S. No	Course Code	Subjects	Category	L	T	P	Credits
1		Power System Operation & Control	EE	3	--	--	3
2		Open Elective - II	OE	3	--	--	3
3		Elective - IV	EL	3	--	--	3
4		Project-II	Project	--	--	16	8
Total Credits				09		16	17

BS – Basic Sciences

HS – Humanity Sciences

ES – Engineering Sciences

EE – Electrical Engineering

OE – Open Elective

EL – Elective

Proj- Project

MC–Mandatory Course



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

Elective – I:

1. Digital IC Applications
2. Communication Systems
3. Computer Networks
4. Internet of Things applications to Electrical Engineering
5. VLSI Design
6. Cloud Computing

Elective – II:

1. Utilization of Electrical Energy
2. Data Base Management System
3. Advanced Control Systems
4. Electrical Machine Design
5. Hybrid Electric Vehicles
6. Swayam Course

Elective – III:

1. Operating Systems
2. Neural Networks & Fuzzy Logic
3. High Voltage Engineering
4. Energy Auditing and Demand Side Management
5. Data Analytics with Python
6. Swayam Course

Elective – IV:

1. Electrical Distribution Systems
2. HVAC & DC Transmission
3. Flexible Alternating Current Transmission Systems
4. Power Quality
5. Smart Grid
6. Special Electrical Machines



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

COURSE STRUCTURE-R19

Open Electives offered by EEE Department for Other Branches(Except for EEE Branch)

Open Elective-I:

1. Renewable Energy Sources
2. Essentials of Analog and Digital Electronics
3. Electrical Estimation and Costing
4. Power Electronic Devices & Circuits
5. Fundamentals of Electrical Machines

Open Elective-II:

1. Measurements & Instrumentation
2. Fundamentals of Utilization of Electrical Energy
3. Concepts of Power System Engineering
4. Basics of Control Systems
5. Energy Audit



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

B. TECH MECHANICAL ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1101	Mathematics – I	3	0	0	3
2	BS1102	Mathematics – II	3	0	0	3
3	BS1108	Engineering Physics	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1109	Engineering Physics Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1104	Constitution of India	2	0	0	0
Total Credits			15	0	12	19

I Year – II SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1201	English	3	0	0	3
2	BS1210	Engineering Chemistry	3	0	0	3
3	ES1204	Engineering Mechanics	3	0	0	3
4	ES1206	Basic Electrical & Electronics Engineering	3	0	0	3
5	ES1207	Computer Aided Engineering Drawing	1	0	3	2.5
6	HS1203	Communication Skills Lab	0	0	2	1
7	BS1211	Engineering Chemistry Lab	0	0	2	1.5
8	ES1208	Basic Electrical & Electronics Engineering Lab	0	0	3	1.5
9	ES1219	Workshop Practice Lab	0	0	3	1.5
10	PR1201	Engineering Exploration Project	0	0	2	1
Total Credits			13	0	15	21


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF MECHANICAL ENGINEERING
II YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	BSC	Vector Calculus & Fourier Transforms	3	--	--	3
2	PCC-ME	Mechanics of Solids	3	--	--	3
3	PCC-ME	Material Science & Metallurgy	3	--	--	3
4	PCC-ME	Production Technology	3	--	--	3
5	PCC-ME	Thermodynamics	3	--	--	3
6	PCC-ME	Machine Drawing	1	--	3	2.5
7	PCC-Lab1	Metallurgy & Mechanics of Solids Lab	--	--	3	1.5
8	PCC-Lab2	Production Technology Lab	--	--	3	1.5
9	MC2101	Environmental Science	3	--	--	--
10	PROJ-2101	Socially Relevant Project				0.5
Total Credits			19	--	9	21

II YEAR II SEMESTER

S.No	Course Code	Course Title	L	T	P	Credits
1	BSC	Complex Variables & Statistical Methods	3	--	--	3
2	PCC-ME	Kinematics of Machinery	3	--	--	3
3	PCC-ME	Applied Thermodynamics	3	--	--	3
4	PCC-ME	Fluid Mechanics & Hydraulic Machines	3	--	--	3
5	PCC-ME	Metal Cutting & Machine Tools	3	--	--	3
6	PCC-ME	Design of Machine Members-I	3	--	--	3
7	PCC-Lab5	Fluid Mechanics & Hydraulic Machines Lab	--	--	3	1.5
8	PCC-Lab6	Machine Tools Lab	--	--	3	1.5
9	MC2201	Essence of Indian Traditional Knowledge	2	--	--	--
Total Credits			20	--	6	21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

III YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	PCC-ME	Dynamics of Machinery	3	--	--	3
2	PCC-ME	Design of Machine Members-II	3	--	--	3
3	PCC-ME	Mechanical Measurements & Metrology	3	--	--	3
4	HSIMS	Managerial Economics and Financial Accountancy	3	--	--	3
5	PCC-ME	IC Engines & Gas turbines	3	--	--	3
6	PCC-Lab	Thermal Engineering Lab	--	--	3	1.5
7	PCC-Lab	Theory of Machines Lab	--	--	3	1.5
8	PCC-Lab	Mechanical Measurements & Metrology Lab	--	--	3	1.5
9	PROJ-3101	Socially Relevant Project				0.5
		Total Credits	15	--	9	20

III YEAR II SEMESTER

S. No	Course Code	Course Title	L	T	P	Credits
1	PCC-ME	Operations Research	3	--	--	3
2	PCC-ME	Heat Transfer	3	--	--	3
3	PCC-ME	CAD/CAM	3	--	--	3
4	PEC-ME1	1.Composite Materials 2.Refrigeration & Air Conditioning 3. Unconventional Machining Processes 4. Advanced Mechanics of Solids 5.MOOCs(NPTEL/Swayam)	3	--	--	3
5	PEC-ME2	1. Material Characterization 2. Tribology 3. Automobile Engineering 4.Mechatronics 5.MOOCs(NPTEL/Swayam)	3	--	--	3
6	PCC-Lab	Simulation of Mechanical Systems Lab	--	--	2	1
7	PCC-Lab	Heat Transfer Lab	--	--	3	1.5
8	PCC-Lab	CAD /CAM Lab	--	--	3	1.5
9	PROJ- ME	Summer Internship*	--	--		1
		Total Credits	15	--	9	20

*The students have to undergo a summer internship for minimum of Four weeks duration from Industries/R&D/ Govt. Organizations after B.Tech III year II-Semester and credits will be awarded in B.Tech IV year I-Semester after evaluation.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA

KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING

IV YEAR I SEMESTER

S. No.	Course Code	Course Title	L	T	P	Credits
1	HSIMS	Industrial Management	3	--	--	3
2	PCC-ME	Finite Element Methods	3	--	--	3
3	PEC-3	1.Mechanical Vibrations 2. Renewable Energy Sources 3.Production Planning & Control 4. Machine Tool Design 5. MOOCs (NPTEL/Swayam)	3	--	--	3
4	PEC-4	1.Industrial Automation and Robotics 2. Micro and Nano manufacturing 3. Power Plant Engineering 4.Optimization Techniques 5. MOOCs (NPTEL/Swayam)	3	--	--	3
5	OEC-1	OPEN ELECTIVE -I	3	--	--	3
6	PCC-ME Lab	Finite Element Simulation Lab	--	--	2	1
7	PROJ-I	Project-I	--	--	4	2
		Total Credits	15	--	6	18

OPEN ELECTIVE -I:

1. MEMS
2. Optimization Methods
3. Operations Management
4. Nano Technology
5. Finite Element Analysis


JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF MECHANICAL ENGINEERING
IV YEAR II SEMESTER (VIII SEMESTER)

S. No.	Course Code	Course Title	L	T	P	Credits
1	PEC-5	1.Additive Manufacturing 2.Gas Dynamics and Jet Propulsion 3. Product design and development 4. Reliability Engineering 5. MOOCs (NPTEL/Swayam)	3	--	--	3
2	PEC-6	1.Condition Monitoring 2.Computational Fluid Dynamics 3.Non Destructive Evaluation 4. Control Systems 5. Entrepreneurship Development	3	--	--	3
3	OEC-2	OPEN ELECTIVE -II	3	--	--	3
4	OEC-3	OPEN ELECTIVE -III	3	--	--	3
5	PROJ-II	Project-II	--	--	16	8
		Total Credits	12	--	16	20

OPEN ELECTIVE-II:

1. Green Energy Systems
2. Robotics
3. Energy Consumption and Management
4. 3D Printing Technologies
5. Mechatronics

OPEN ELECTIVE-III:

1. Total Quality Management
2. Supply Chain Management
3. Product Design & Development
4. Entrepreneurship
5. Advanced Materials

Note:

- 1) Professional Elective course (PEC) /Open Elective course (OEC) can also be completed via MOOCs (NPTEL/Swayam) Course (12 Week duration)
- 2) The list of MOOCs courses shall be approved by the chairperson of BOS.
- 3) The tutorial class can be of one hour duration as per requirements of a particular subject.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

B. TECH ELECTRONICS AND COMMUNICATION ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA - 533 003, Andhra Pradesh, India



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

I Year – I SEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1101	Programming for Problem Solving Using C	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1102	Programming for Problem Solving Using C Lab	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – IISEMESTER

Sl. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1209	Network Analysis	3	0	0	3
5	ES1211	Basic Electrical Engineering	3	0	0	3
6	ES1215	Electronic workshop	0	0	2	1
7	ES1208	Basic Electrical Engineering Lab	0	0	3	1.5
8	BS1205	Applied Physics Lab	0	0	3	1.5
9	HS1203	Communication Skills Lab	0	0	2	1
10	PR1201	Engineering Exploration Project	0	0	2	1
			15	0	12	21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

II Year – ISemester

S. No.	Course	Category	L	T	P	Credits
1	Electronic Devices and Circuits	PC	3	0	0	3
2	Switching Theory and Logic Design	PC	3	0	0	3
3	Signals and Systems	PC	3	0	0	3
4	Random Variables and Stochastic Processes	PC	3	0	0	3
5	Object Oriented Programming through Java	ES	3	0	0	3
6	Managerial Economics & Financial Analysis	HS	3	0	0	3
7	Electronic Devices and Circuits - Lab	LC	0	0	3	1.5
8	Switching Theory and Logic Design - Lab	LC	0	0	3	1.5
9	Constitution of India	MC	3	0	0	0
			Sub-Total			21

II Year – IISemester

S. No.	Course	Category	L	T	P	Credits
1	Electronic Circuit Analysis	PC	3	0	0	3
2	Linear Control Systems	PC	3	0	0	3
3	Electromagnetic Waves and Transmission Lines	PC	3	0	0	3
4	Analog Communications	PC	3	0	0	3
5	Computer Architecture and Organization	ES	3	0	0	3
6	Management and Organizational Behavior	HS	3	0	0	3
7	Electronic Circuit Analysis - Lab	LC	0	0	3	1.5
8	Analog Communications - Lab	LC	0	0	3	1.5
			Sub-Total			21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

III Year – I Semester

S. No.	Course	Category	L	T	P	Credits
1	Linear Integrated Circuits and Applications	PC	3	0	0	3
2	Microprocessor and Microcontrollers	PC	3	0	0	3
3	Digital Communications	PC	3	0	0	3
4	Electronic Measurements & Instrumentation	PC	3	0	0	3
5	Professional Elective (PE 1)	PE	3	0	0	3
6	Linear Integrated Circuits and Applications - Lab	LC	0	0	3	1.5
7	Digital Communications Lab	LC	0	0	3	1.5
8	Microprocessor and Microcontrollers - Lab	LC	0	0	3	1.5
9	Mini Project with Hardware Development	PR	0	0	3	1.5
10	Essence of Indian Traditional Knowledge	MC	3	0	0	0
			Sub-Total			21

III Year – IISemester

S. No.	Course	Category	L	T	P	Credits
1	Wired and Wireless Transmission Devices	PC	3	0	0	3
2	VLSI Design	PC	3	0	0	3
3	Digital Signal Processing	PC	3	0	0	3
4	Professional Elective (PE2)	PE	3	0	0	3
5	Open Elective (OE1)	OE	3	0	0	3
6	Internet of Things	PC	3	0	0	3
7	VLSI Lab	LC	0	0	3	1.5
8	Digital Signal Processing Lab	LC	0	0	3	1.5
9	Intellectual Property Rights (IPR) & Patents	MC	3	0	0	0
			Sub-Total			21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

IV Year – ISemester

S. No.	Course	Category	L	T	P	Credits
1	Microwave and Optical Communication Engineering	PC	3	0	0	3
2	Data Communications & Computer networks	PC	3	0	0	3
3	Digital Image and Video Processing	PC	3	0	0	3
4	Professional Elective (PE3)	PE	3	0	0	3
5	Professional Elective (PE4)	PE	3	0	0	3
6	Internet of Things Lab	LC	0	0	3	1.5
7	Microwave and Optical Communication Engineering LAB	LC	0	0	3	1.5
8	Project - Part I	PR	0	0	6	3
			Sub-Total			21

IV Year – II Semester

S. No.	Course	Category	L	T	P	Credits
1	Professional Elective (PE5)	PE	3	0	0	3
2	Open Elective (OE2)	OE	3	0	0	3
3	Project - Part II	PR	0	0	18	9
			Sub-Total			15
			Total			160



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

PROFESSIONAL ELECTIVES 1:

1. Information Theory & Coding
2. Digital System Design using HDL
3. Data structures and Algorithms
4. Soft computing techniques and Python programming
5. Simulation & Mathematical Modeling

PROFESSIONAL ELECTIVES 2:

1. Cellular & Mobile Communication
2. Digital IC Design
3. Business Intelligence & Analytics
4. Pattern Recognition
5. Robotics and Automation

PROFESSIONAL ELECTIVES 3:

1. Communication Standards and Protocols
2. Analog IC Design
3. Smart Sensors
4. Advanced Digital Signal Processing
5. Augmented Reality

PROFESSIONAL ELECTIVES 4:

1. Software Radio
2. Low power VLSI Design
3. Embedded Systems
4. DSP processors and Architectures
5. Multi Media Communication

PROFESSIONAL ELECTIVES 5:

1. Wireless Communication
2. VLSI Testing & Testability
3. Machine Learning & Artificial Intelligence
4. Speech Processing
5. Industrial Internet of Things



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

OPEN ELECTIVES FOR ECE:

Open Elective 1:

1. DataMining
2. PowerElectronics
3. MEMS and itsapplications
4. Artificial NeuralNetworks

Open Elective 2:

1. 3D Printing
2. Block chainTechnology
3. Cyber Security &Cryptography

OPEN ELECTIVES OFFERED BY ECE:

- | | |
|------|-----------------------------|
| OE 1 | Principles of communication |
| OE 2 | Embedded Systems |



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE AND SYLLABUS

For

B. Tech COMPUTER SCIENCE &ENGINEERING

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

COURSE STRUCTURE - R19

I Year – I SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1112	Fundamentals of Computer Science	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1105	IT Workshop	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – II SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1201	Programming for Problem Solving using C	3	0	0	3
5	ES1213	Digital Logic Design	3	0	0	3
6	BS1205	Applied Physics Lab	0	0	3	1.5
7	HS1203	Communication Skills Lab	0	1	2	2
8	ES1202	Programming for Problem Solving using C Lab	0	0	3	1.5
9	PR1201	Engineering Exploration Project	0	0	2	1
10	MC1204	Constitution of India	3	0	0	0
Total Credits			18	1	10	21

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

[illegible][illegible]



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

III Year – I SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	CS3101	Data Warehousing and Data Mining	3	0	0	3
2	CS3102	Computer Networks	3	0	0	3
3	CS3103	Compiler Design	3	0	0	3
4	CS3104	Artificial Intelligence	3	0	0	3
5	PE3101	Professional Elective- I 1. Computer Graphics 2. Principles of Programming Languages 3. Advanced Data Structures 4. Software Testing Methodologies 5. Advanced Computer Architecture	3	0	0	3
6	CS3105	Computer Networks Lab	0	0	2	1
7	CS3106	AI Tools & Techniques Lab	0	0	3	1.5
8	CS3107	Data Mining Lab	0	0	3	1.5
9	MC3101	Employability Skills -II*	2	0	0	0
Total			17	0	8	19
*Internal Evaluation through Seminar / Test for 50 marks						

III Year – II SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	CS3201	Web Technologies	3	0	0	3
2	CS3202	Distributed Systems	3	0	0	3
3	CS3203	Design and Analysis of Algorithms	3	0	0	3
4	PE3201	Professional Elective -II (NPTEL/SWAYAM) Duration: 12 Weeks Minimum *Course/subject title can't be repeated	3	0	0	3
5	OE3201	Open Elective- I (Inter Disciplinary)	3	0	0	3
6	HS3201	Managerial Economics and Financial Accountancy	3	0	0	3
7	CS3204	Web Technologies Lab	0	0	4	2
9	PR3201	Industrial Training / Skill Development Programmes / Research Project in higher learning institutes	0	0	0	1
Total			18	0	4	21



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
IV Year – I SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	CS4101	Cryptography and Network Security	3	0	0	3
2	CS4102	UML & Design Patterns	3	0	0	3
3	CS4103	Machine Learning	3	0	0	3
4	OE4101	Open Elective -II (Inter Disciplinary)	3	0	0	3
5	PE4101	Professional Elective- III 1. Mobile Computing 2. Data Science 3. NoSQL Databases 4. Internet of Things 5. Software Project Management	3	0	0	3
6	PE4102	Professional Elective- IV 1. Web Services 2. Cloud Computing 3. Mean Stack Technologies 4. Ad-hoc and Sensor Networks 5. Cyber Security & Forensics	3	0	0	3
7	CS4104	UML Lab #	0	0	2	1
8	PR4101	Project- I	0	0	0	2
9	MC4101	IPR & Patents	3	0	0	0
Total			21	0	2	21
# Relevant theory to be taught in the lab						

IV Year – II SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	HS4201	Management and Organizational Behavior	3	0	0	3
2	OE4201	Open Elective- III (Inter Disciplinary)	3	0	0	3
3	PE4201	Professional Elective-V 1. Deep Learning 2. Quantum Computing 3. DevOps 4. Blockchain Technologies 5. Big Data Analytics	3	0	0	3
4	PR4201	Project- II	0	0	0	7
Total			9	0	0	16



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Open Electives to be offered by CSE for Other Branches:

Open Elective I: 1. Data Structures 2. Java Programming 3. Data Base Management Systems 4. C++ Programming 5. Operating Systems 6. Internet of Things	Open Elective II: 1. Problem Solving using Python 2. Web Technologies 3. Machine Learning 4. Distributed Computing 5. AI Tools & Techniques 6. Data Science
Open Elective III: 1. Big Data 2. Image Processing 3. Mobile Application Development 4. Cyber Security 5. Deep Learning 6. Blockchain Technologies	



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF INFORMATION TECHNOLOGY
COURSE STRUCTURE AND SYLLABUS

For

B. Tech INFORMATION TECHNOLOGY

(Applicable for batches admitted from 2019-2020)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA
KAKINADA - 533 003, Andhra Pradesh, India

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA****KAKINADA – 533 003, Andhra Pradesh, India****DEPARTMENT OF INFORMATION TECHNOLOGY****COURSE STRUCTURE - R19****I Year – I SEMESTER**

S. No	Course Code	Subjects	L	T	P	Credits
1	HS1101	English	3	0	0	3
2	BS1101	Mathematics - I	3	0	0	3
3	BS1106	Applied Chemistry	3	0	0	3
4	ES1112	Fundamentals of Computer Science	3	0	0	3
5	ES1103	Engineering Drawing	1	0	3	2.5
6	HS1102	English Lab	0	0	3	1.5
7	BS1107	Applied Chemistry Lab	0	0	3	1.5
8	ES1105	IT Workshop	0	0	3	1.5
9	MC1101	Environmental Science	3	0	0	0
Total Credits			16	0	12	19

I Year – II SEMESTER

S. No	Course Code	Subjects	L	T	P	Credits
1	BS1202	Mathematics – II	3	0	0	3
2	BS1203	Mathematics – III	3	0	0	3
3	BS1204	Applied Physics	3	0	0	3
4	ES1201	Programming for Problem Solving using C	3	0	0	3
5	ES1213	Digital Logic Design	3	0	0	3
6	BS1205	Applied Physics Lab	0	0	3	1.5
7	HS1203	Communication Skills Lab	0	1	2	2
8	ES1202	Programming for Problem Solving using C Lab	0	0	3	1.5
9	PR1201	Engineering Exploration Project	0	0	2	1
10	MC1204	Constitution of India	3	0	0	0
Total Credits			18	1	10	21

KAKINADA – 533 003, Andhra Pradesh, India

II Year – I SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	IT2101	Discrete Mathematical Structures	3	0	0	3
2	IT2102	Principles of Software Engineering	3	0	0	3
3	ES2101	Python Programming	3	0	0	3
4	IT2103	Data Structures	3	0	0	3
5	IT2104	Computer Organization	3	0	0	3
6	IT2105	Object Oriented Programming through C++	3	0	0	3
7	ES2102	Python Programming Lab	0	0	3	1.5
8	IT2106	Data Structures through C++ Lab	0	0	3	1.5
9	MC2101	Essence of Indian Traditional Knowledge	3	0	0	0
10	MC2102	Employability Skills - I*	2	0	0	0
Total			23	0	6	21
*Internal Evaluation through Seminar / Test conducted for 50 marks						

II Year – II SEMESTER

[illegible]



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF INFORMATION TECHNOLOGY

III Year – I SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	IT3101	Advanced Data Structures	3	1	0	4
2	IT3102	Computer Networks	3	0	0	3
3	IT3103	Compiler Design	3	0	0	3
4	IT3104	Artificial Intelligence	3	0	0	3
5	PE3101	Professional Elective -I 1. Software Testing Methodologies 2. NoSQL Databases 3. Scripting Languages 4. Computer Graphics 5. R-Programming	3	0	0	3
6	IT3105	Design and Analysis of Algorithms	3	0	0	3
7	IT3106	Computer Networks & Compiler Design Lab	0	0	3	1.5
8	IT3107	AI Tools & Techniques Lab	0	0	3	1.5
9	MC3101	Employability Skills - II*	2	0	0	0
Total			20	1	6	22
*Internal Evaluation through Seminar / Test conducted for 50 marks						

III Year – II SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	IT3201	Data Warehousing and Data Mining	3	0	0	3
2	OE3201	Open Elective- I (Inter Disciplinary)	3	0	0	3
3	IT3202	Web Technologies	3	0	0	3
4	PE3201	Professional Elective II (NPTEL/SWAYAM) Duration: 12 Weeks Minimum *Course/subject title can't be repeated	3	0	0	3
5	HS3201	Managerial Economics and Financial Accountancy	3	0	0	3
6	IT3203	Web Technologies Lab	0	0	3	1.5
7	IT3204	Data Mining Lab	0	0	3	1.5
8	PR3201	Industrial Training / Skill Development Programmes / Research Project in higher learning institutes	0	0	0	1
Total			15	0	6	19

KAKINADA – 533 003, Andhra Pradesh, India

IV Year – I SEMESTER

*Relevant theory to be taught in the lab



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA

KAKINADA – 533 003, Andhra Pradesh, India

DEPARTMENT OF INFORMATION TECHNOLOGY

IV Year – II SEMESTER

S.No	Course Code	Courses	L	T	P	Credits
1	HS4201	Management and Organizational Behavior	3	0	0	3
2	OE4201	Open Elective- III (Inter Disciplinary)	3	0	0	3
3	PE4201	Professional Elective- V 1. Deep Learning 2. Quantum Computing 3. Blockchain Technologies 4. Software Project Management 5. Network Programming	3	0	0	3
4	PR4201	Project- II	0	0	0	7
Total			9	0	0	16

Open Electives to be offered by IT for Other Branches:

Open Elective I: 1. Data Structures 2. Java Programming 3. Data Base Management Systems 4. C++ Programming 5. Operating Systems 6. Internet of Things	Open Elective II: 1. Problem Solving using Python 2. Web Technologies 3. Machine Learning 4. Distributed Computing 5. AI Tools & Techniques 6. Data Science
Open Elective III: 1. Big Data 2. Image Processing 3. Mobile Application Development 4. Cyber Security 5. Deep Learning 6. Block Chain Technologies	

ACADEMIC REGULATIONS
COURSE STRUCTURE & DETAILED SYLLABUS

For

MASTER OF BUSINESS ADMINISTRATION

(Applicable for the batches admitted from 2019-20)



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY KAKINADA
KAKINADA – 533003, ANDHRA PRADESH, INDIA

I YEAR I SEMESTER							
S.No	Course Code	Courses	Marks	L	T	P	C
1	C-101	Management and Organizational Behavior	100	4	0	0	4
2	C-102	Managerial Economics	100	4	0	0	4
3	C-103	Accounting for Managers	100	4	0	0	4
4	C-104	Quantitative Analysis for Business Decisions	100	4	0	0	4
5	C-105	Legal and Business Environment	100	4	0	0	4
6	C-106	Business Communication and Soft skills	100	2	0	2	4
7	C-107 Open Elective	Cross Cultural Management Rural Innovation projects MOOCs : SWAYAM/NPTEL- Related to Management Courses other than listed courses in the syllabus	100	4	0	0	4
8	C-108	Information Technology – Lab1(Spreadsheet and Tally)	50	0	0	2	2
Total			750	28	0	2	30

I YEAR II SEMESTER							
S.No	Course Code	Courses	Marks	L	T	P	C
1	C-201	Financial Management	100	4	0	0	4
2	C-202	Human Resource Management	100	4	0	0	4
3	C-203	Marketing Management	100	4	0	0	4
4	C-204	Operations Management	100	4	0	0	4
5	C-205	Business Research Methods	100	4	0	0	4
6	C-206 open elective	Project Management Technology Management Lean Management Database Management System	100	4	0	0	4
7	C-207	IT-lab 2(Programming R)	50	0	0	2	2
Total			650	24	0	2	26

II YEAR III SEMESTER							
S.No	Course Code	Courses	Marks	L	T	P	C
1	C-301	Strategic Management	100	4	0	0	4
2	C -302	Operations Research	100	4	0	0	4
3	E -301	Elective – 1	100	4	0	0	3
4	E-302	Elective – 2	100	4	0	0	3
5	E-303	Elective – 3	100	4	0	0	3
6	E-304	Elective – 4	100	4	0	0	3
7	C-304	Industrial Project based on Summer Internship	150	4	0	0	4
Total			750	28	0	0	24

II YEAR IV SEMESTER							
S.No	Course Code	Courses	Marks	L	T	P	C
1	C -401	Supply Chain Management and Analytics	100	4	0	0	4
2	C-402	Innovation and Entrepreneurship	100	4	0	0	4
3	E-401	Elective – 5	100	4	0	0	3
4	E-402	Elective – 6	100	4	0	0	3
5	E-403	Elective – 7	100	4	0	0	3
6	E-404	Elective – 8	100	4	0	0	3
7	C-403	Comprehensive Viva- voce	50	0	0	0	2
Total Marks / Credits			650	28	0	0	22
			2800				102

*The project work documentation shall be checked with anti plagiarism software (Turnitin). The permissible similarity shall be less than 30%.

*Comprehensive Viva is to verify the student knowledge as a whole from which he was studied during the two year course work.

III SEMESTER
Human Resource Management

S. no	Course Code	SUBJECT TITLE
1	EH-301	Leadership and Change Management
2	EH-302	Performance Evaluation and Compensation Management
3	EH-303	Human Resource Metrics and Analytics
4	EH-304	Human Capital Management
5	EH-305	Manpower Planning, Recruitment, and Selection

IV SEMESTER
Human Resource Management

S. no	Course Code	SUBJECT TITLE
6	EH-401	Labor Welfare and employment laws
7	EH-402	International HRM
8	EH-403	Employee Relations and Engagement
9	EH-404	Human Resources Development
10	EH-405	Strategic HRM

III SEMESTER FINANCE

S. no	Course Code	SUBJECT TITLE
1	EF-301	Investment Analysis and Portfolio Management
2	EF-302	Managing Banks and Financial Institutions
3	EF-303	Financial Markets and Services
4	EF-304	Mergers, Acquisitions and Corporate Restructuring
5	EF-305	Taxation

IV SEMESTER FINANCE

S. no	Course Code	SUBJECT TITLE
6	EF-401	Financial Derivatives
7	EF-402	Global Financial Management
8	EF-403	Financial Risk Management
9	EF-404	Strategic Financial Management
10	EF-405	Behavioral Finance

**III SEMESTER - ELECTIVES
MARKETING**

S. no	Course Code	SUBJECT TITLE
1	EM-301	Consumer Behavior
2	EM-302	Retail Management
3	EM-303	Customer Relationship Management
4	EM-304	Strategic Marketing Management
5	EM-305	Digital and Social Media Marketing

IV SEMESTER MARKETING

S. no	Course Code	SUBJECT TITLE
6	EM-401	Services Marketing
7	EM-402	Promotional and Distribution Management
8	EM-403	Green Marketing
9	EM-404	Advertising and Brand Management
10	EM-405	Global Marketing Management

**III SEMESTER ELECTIVES
SYSTEMS**

S. no	Course Code	SUBJECT TITLE
1	ES-301	Data Mining for Business Decisions
2	ES-302	Managing Software Projects
3	ES-303	Web Designing
4	ES-304	Business Analytics
5	ES-305	Managing Digital Innovation and Transformation

IV SEMESTER SYSTEMS

S. no	Course Code	SUBJECT TITLE
6	ES-401	Big Data Analytics
7	ES-402	Enterprise Resource Planning
8	ES-403	Cyber Laws & Security
9	ES-404	Information Systems Audit
10	ES-405	Artificial Intelligence and Machine Learning

**OPERATIONS MANAGEMENT
III SEMESTER**

S. no	Course Code	SUBJECT TITLE
1	EO-301	Service Operations Management
2	EO-302	Quality Toolkit for Managers
3	EO-303	Pricing and Revenue Management
4	EO-304	Operations Strategy
5	EO-305	Sales and Operations Planning

IV SEMESTER

S. no	Course Code	SUBJECT TITLE
6	EO-401	Behavioral Operations Management
7	EO-402	Theory of Constraints
8	EO-403	Management of Manufacturing Systems
9	EO-404	Sourcing Management
10	EO-405	Supply Chain Analytics

TRAVEL AND TOURISM MANAGEMENT
III SEMESTER

S. no	Course Code	SUBJECT TITLE
1	ET-301	Travel agency and Tour Operations
2	ET-302	Hospitality Management
3	ET-303	Resort Planning and Destination Management
4	ET-304	Tourism Policy and Planning
5	ET-305	Recreation Management

IV SEMESTER

S. no	Course Code	SUBJECT TITLE
6	ET-401	Travel Media and Journalism
7	ET-402	Event Management
8	ET-403	Front Office Management
9	ET-404	Information Technology and Tourism
10	ET-405	Eco Tourism Practices



**HEALTH CARE AND HOSPITAL MANAGEMENT
III SEMESTER**

S. no	Course Code	SUBJECT TITLE
1	EHC-301	Hospital organization and Management
2	EHC-302	Health Care Policies and Delivery Systems
3	EHC-303	Health Economics
4	EHC-304	Hospital Functions and Support Services
5	EHC-305	Revenue Cycle Management

IV SEMESTER

S. no	Course Code	SUBJECT TITLE
6	EHC-401	Patient Care & Services Management
7	EHC-402	Managed Health Care and Insurance
8	EHC-403	Health Laws, Ethics and Regulations
9	EHC-404	Hospital Management Information System
10	EHC-405	Health Analytics

ENTREPRENEURSHIP AND SMALL ENTERPRISE MANAGEMENT
III SEMESTER

S. no	Course Code	SUBJECT TITLE
1	EE-301	Indian Models in Entrepreneurship
2	EE-302	Social Entrepreneurship
3	EE-303	Business Plan Preparation for Small Business
4	EE-304	Entrepreneurial Marketing
5	EE-305	Planning, Structuring, and Financing Small Business

IV SEMESTER

S. no	Course Code	SUBJECT TITLE
6	EE-401	Marketing for Small Business
7	EE-402	Finance and Accounting for Small Business
8	EE-403	Technology Appreciation and Intellectual Property Rights
9	EE-404	Innovation Technology Management
10	EE-405	Venture Valuation and Accounting

AGRO-BUSINESS MANAGEMENT
III SEMESTER

S. no	Course Code	SUBJECT TITLE
	EA-301	Agro-Marketing Management
2	EA-302	Agro-Business and Rural Green Market
3	EA-303	Agro-Business Environment
4	EA-304	Agro-Supply Chain Management
5	EA-305	Entrepreneurship for Agriculture

IV SEMESTER

S. no	Course Code	SUBJECT TITLE
6	EA-401	Food Processing Management
7	EA-402	Disaster Management
8	EA-403	Food Retail Management
9	EA-404	Agro- Technology Management
10	EA-405	Organic Food Technology

**LOGISTICS AND SUPPLY CHAIN MANAGEMENT
III SEMESTER**

S. no	Course Code	SUBJECT TITLE
1	EL-301	Store keeping and Warehousing management
2	EL-302	Transportation and Infrastructure Management for SCM
3	EL-303	Purchasing and Material Management
4	EL-304	Reverse Logistics
5	EL-305	Supply Chain Risk Management

IV SEMESTER

S. no	Course Code	SUBJECT TITLE
6	EL-401	Enterprise Resource Planning
7	EL-402	International Logistics Management
8	EL-403	Lean Supply Chain Management
9	EL-404	Shipping and Maritime law
10	EL-405	Green Supply Chain Management