

1.3.1 Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

The Institute follows curriculum prescribed by the University and integrates various socially relevant cross-cutting issues like ethics, human values, environment, etc., across UG programs to sensitize the students

Human Values and Professional Ethics:

Human values and professional ethics are addressed through the course "**Constitution of India, Professional Ethics & human values and Essence of Indian Traditional & Knowledge**" offered to engineering programme. The primary objective of this course is to ensure that the students have knowledge of the constitution, fundamental duties and rights of citizens, Indian Traditions, Professional ethics and the responsibilities of engineers. The Students of First Year UG will undergo Student Induction Program (SIP) in which cross-cutting issues like Human Values and Professional Ethics are addressed.

Environment and Sustainability:

The issues of Environment and Sustainability are addressed through the course "**Environmental Studies**" offered to engineering students in the IInd and IIIrd semester. Through this course, students are sensitized to ecological and environmental issues connected with land, air, and water, with awareness on sustainable development.

Gender equity:

NEC, imparting quality education to shape global leaders has firm belief in gender equity which is indispensable to ensure sustainable development of a country. Institute has initiated promising measures to sensitize and promote gender equity amongst the stakeholders through curricular and co-curricular activities. The Institute makes concerted efforts to create a congenial environment free from gender discrimination through mutual respect.

Apart from the above, the Institute organizes various awareness programs and activities on cross-cutting issues with the support of external organizations and experts. **The NSS activities, Swachh Bharath Abhiyan, blood donation and health awareness camps conducted by Youth Red Cross Unit play vital role in promoting inclusive environment towards regional and socioeconomic diversities among students making a Positive difference and shaping them into whole some professionals.**




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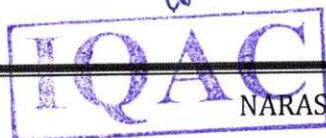
DEPARTMENT OF CIVIL ENGINEERING

Induction Programme

S.No	Course Name	Category	L-T-P-C
1	Physical Activities -- Sports, Yoga and Meditation ,Plantation	MC	0-0-6-0
2	Career Counselling	MC	2-0-2-0
3	Orientation to all branches -- career options, tools, etc.	MC	3-0-0-0
4	Orientation on admitted Branch – corresponding labs, tools and platforms	EC	2-0-3-0
5	Proficiency Modules & Productivity Tools	ES	2-1-2-0
6	Assessment on basic aptitude and mathematical skills	MC	2-0-3-0
7	Remedial Training in Foundation Courses	MC	2-1-2-0
8	Human Values & Professional Ethics	MC	3-0-0-0
9	Communication Skills -- focus on Listening, Speaking, Reading, Writing skills	BS	2-1-2-0
10	Concepts of Programming	ES	2-0-2-0

I B.Tech I SEMESTER

S.No	Subject	Course Code	Cat.Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	LINEAR ALGEBRA & CALCULUS	R23CC1101	BS&H	30	70	100	3	0	0	3
2	INTRODUCTION TO PROGRAMMING	R23CC1102	ES	30	70	100	3	0	0	3
3	ENGINEERING PHYSICS	R23CC1106	BS&H	30	70	100	2	0	0	3
4	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	R23CC1107	ES	30	70	100	3	0	0	3
5	ENGINEERING GRAPHICS	R23CC1108	BS&H	30	70	100	3	0	0	3
6	COMPUTER PROGRAMMING LAB	R23CC11L1	ES	30	70	100	0	0	3	1.5
7	IT WORKSHOP	R23CC11L5	BS&H	30	70	100	0	0	2	1
8	ENGINEERING PHYSICS LAB	R23CC11L6	ES	30	70	100	0	0	2	1
9	EEE WORKSHOP	R23CC11L7	BS&H	30	70	100	0	0	3	1.5
10	NSS/NCC/SCOUTS & GUIDES/COMMUNITY SERVICE	R23CC11MC2	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



DEPARTMENT OF CIVIL ENGINEERING

I B.Tech II SEMESTER

S.N O	Subject	Course Code	Cat.Code	Intern al Marks	External Marks	Total Marks	L	T	P	Credits
1	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	R23CC1201	BS&H	30	70	100	3	0	0	3
2	COMMUNICATIVE ENGLISH	R23CC1206	BS&H	30	70	100	2	0	0	2
3	ENGINEERING CHEMISTRY	R23CC1208	BS&H	30	70	100	3	0	0	3
4	ENGINEERING MECHANICS	R23CC1209	ES	30	70	100	3	0	0	3
5	BASIC CIVIL & MECHANICAL ENGINEERING	R23CC1212	ES	30	70	100	3	0	0	3
6	ENGINEERING WORKSHOP	R23CC12L9	ES	30	70	100	0	0	3	1.5
7	ENGINEERING MECHANICS & BUILDING PRACTICES LAB	R23CE12L8	ES	30	70	100	0	0	3	1.5
8	COMMUNICATIVE ENGLISH LAB	R23CC12L12	BS&H	30	70	100	0	0	2	1
9	ENGINEERING CHEMISTRY LAB	R23CC12L11	BS&H	30	70	100	0	0	2	1
10	HEALTH AND WELLNESS, YOGA AND SPORTS	R23CC12MC1	BS&H	100	-	100	-	-	1	0.5
TOTAL										19.5




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DEPARTMENT OF CIVIL ENGINEERING

II B.Tech I SEMESTER

S.No	Subject	Course Code	Cat.Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Numerical Techniques And Statistical Methods	R23CE2111	BS	30	70	100	3	0	0	3
2	Universal human values- understanding harmony and Ethical human conduct	R23CC2102	HSMC	30	70	100	2	1	0	3
3	Surveying	R23CE2103	ES	30	70	100	3	0	0	3
4	Strength of Materials	R23CE2104	PC	30	70	100	3	0	0	3
5	Fluid Mechanics	R23CE2105	PC	30	70	100	3	0	0	3
6	Surveying Lab	R23CE21L1	PC	30	70	100	0	0	3	1.5
7	Strength of Materials Lab	R23CE21L2	PC	30	70	100	0	0	3	1.5
8	Building Planning and Drawing	R23CE21L3	SC	30	70	100	0	1	2	2
9	Environmental Science	R23CC21MC	Audit Course	30	70	100	2	0	0	-
TOTAL										20



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INDUCTION PROGRAMME

S. No	Course Name	Category	L-T-P-C
1	Physical Activities -- Sports, Yoga and Meditation ,Plantation	MC	0-0-6-0
2	Career Counselling	MC	2-0-2-0
3	Orientation to all branches -- career options, tools, etc.	MC	3-0-0-0
4	Orientation on admitted Branch – corresponding labs, tools and platforms	EC	2-0-3-0
5	Proficiency Modules & Productivity Tools	ES	2-1-2-0
6	Assessment on basic aptitude and mathematical skills	MC	2-0-3-0
7	Remedial Training in Foundation Courses	MC	2-1-2-0
8	Human Values & Professional Ethics	MC	3-0-0-0
9	Communication Skills -- focus on Listening, Speaking, Reading, Writing skills	BS	2-1-2-0
10	Concepts of Programming	ES	2-0-2-0

I B.Tech I SEMESTER

S. No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	LINEAR ALGEBRA & CALCULUS	R23CC1101	BS&H	30	70	100	3	0	0	3
2	INTRODUCTION TO PROGRAMMING	R23CC1102	ES	30	70	100	3	0	0	3
3	ENGINEERING PHYSICS	R23CC1106	BS&H	30	70	100	3	0	0	3
4	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	R23CC1107	ES	30	70	100	3	0	0	3
5	ENGINEERING GRAPHICS	R23CC1108	BS&H	30	70	100	3	0	0	3
6	COMPUTER PROGRAMMING LAB	R23CC11L1	ES	30	70	100	0	0	3	1.5
7	IT WORKSHOP	R23CC11L5	BS&H	30	70	100	0	0	2	1
8	ENGINEERING PHYSICS LAB	R23CC11L6	ES	30	70	100	0	0	3	1.5
9	EEE WORKSHOP	R23CC11L7	BS&H	30	70	100	0	0	2	1
10	NSS/NCC/SCOUTS & GUIDES/COMMUNITY SERVICE	R23CC11M C2	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



I B.Tech II SEMESTER

S. No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	R23CC1201	BS&H	30	70	100	3	0	0	3
2	COMMUNICATIVE ENGLISH	R23CC1206	BS&H	30	70	100	3	0	0	2
3	ENGINEERING CHEMISTRY	R23CC1208	BS&H	30	70	100	3	0	0	3
4	ELECTRICAL CIRCUITS ANALYSIS -1	R23EE1210	ES	30	70	100	3	0	0	3
5	BASIC CIVIL & MECHANICAL ENGINEERING	R23CC1212	ES	30	70	100	3	0	0	3
6	ENGINEERING WORKSHOP	R23CC12L9	ES	30	70	100	0	0	3	1.5
7	ELECTRICAL CIRCUITS LAB	R23EE12L5	ES	30	70	100	0	0	3	1.5
8	ENGINEERING CHEMISTRY LAB	R23CC12L11	BS&H	30	70	100	0	0	2	1
9	COMMUNICATIVE ENGLISH LAB	R23CC12L12	BS&H	30	70	100	0	0	2	1
10	HEALTH AND WELLNESS, YOGA AND SPORTS	R23CC12MC1	BS&H	100	-	100	-	-	1	0.5
TOTAL										19.5



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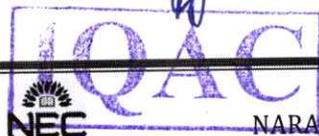
II B.TECH - I SEMESTER

S. No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Complex variables and Numerical Methods	R23EE2101	BS	30	70	100	3	0	0	3
2	Universal Human Values- Understanding Harmony & Ethical Human Conduct	R23CC2102	HSMC	30	70	100	2	1	0	3
3	Electromagnetic Field Theory	R23EE2103	ES	30	70	100	3	0	0	3
4	Electrical Circuit Analysis-II	R23EE2104	PC	30	70	100	3	0	0	3
5	DC Machines & Transformers	R23EE2105	PC	30	70	100	3	0	0	3
6	Electrical Circuit Analysis-II and Simulation Lab	R23EE21L1	PC	30	70	100	0	0	3	1.5
7	DC Machines & Transformers Lab	R23EE21L2	PC	30	70	100	0	0	3	1.5
8	Data Structures Lab	R23EE21L3	SC	30	70	100	0	1	2	2
Total							15	2	10	20

II B.TECH - II SEMESTER

S. No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Managerial Economics & Financial Analysis	R23CC2201	HS	30	70	100	2	0	0	2
2	Analog Circuits	R23EE2202	BS	30	70	100	3	0	0	3
3	Power Systems-I	R23EE2203	PC	30	70	100	3	0	0	3
4	Induction and Synchronous Machines	R23EE2204	PC	30	70	100	3	0	0	3
5	Control Systems	R23EE2205	PC	30	70	100	3	0	0	3
6	Induction and Synchronous Machines Lab	R23EE22L1	PC	30	70	100	0	0	3	1.5
7	Control Systems Lab	R23EE22L2	PC	30	70	100	0	0	3	1.5
8	Python Programming Lab	R23EE22L4	SC	30	70	100	0	1	2	2
9	Design Thinking & Innovation	R23CC22L3	ES	30	70	100	1	0	2	2
10	Environmental Studies	R23CC22MC	MC	30	70	100	2	0	0	-
Total							15	1	10	21
Mandatory Community Service Project Internship of 08 weeks duration during summer Vacation										

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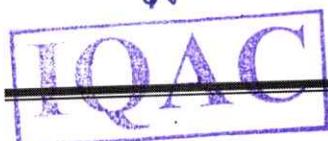


INDUCTION PROGRAMME

S. No	Course Name	Category	L-T-P-C
1	Physical Activities -- Sports, Yoga and Meditation ,Plantation	MC	0-0-6-0
2	Career Counselling	MC	2-0-2-0
3	Orientation to all branches -- career options, tools, etc.	MC	3-0-0-0
4	Orientation on admitted Branch – corresponding labs, tools and platforms	EC	2-0-3-0
5	Proficiency Modules & Productivity Tools	ES	2-1-2-0
6	Assessment on basic aptitude and mathematical skills	MC	2-0-3-0
7	Remedial Training in Foundation Courses	MC	2-1-2-0
8	Human Values & Professional Ethics	MC	3-0-0-0
9	Communication Skills -- focus on Listening, Speaking, Reading, Writing skills	BS	2-1-2-0
10	Concepts of Programming	ES	2-0-2-0

I B.Tech I SEMESTER

S. No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	LINEAR ALGEBRA & CALCULUS	R23CC1101	BS&H	30	70	100	3	0	0	3
2	INTRODUCTION TO PROGRAMMING	R23CC1102	ES	30	70	100	3	0	0	3
3	ENGINEERING PHYSICS	R23CC1106	BS&H	30	70	100	3	0	0	3
4	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	R23CC1107	ES	30	70	100	3	0	0	3
5	ENGINEERING GRAPHICS	R23CC1108	BS&H	30	70	100	3	0	0	3
6	COMPUTER PROGRAMMING LAB	R23CC11L1	ES	30	70	100	0	0	3	1.5
7	IT WORKSHOP	R23CC11L5	BS&H	30	70	100	0	0	2	1
8	ENGINEERING PHYSICS LAB	R23CC11L6	ES	30	70	100	0	0	3	1.5
9	EEE WORKSHOP	R23CC11L7	BS&H	30	70	100	0	0	2	1
10	NSS/NCC/SCOUTS & GUIDES/COMMUNITY SERVICE	R23CC11M C2	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



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I B.Tech II SEMESTER

S. No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	R23CC1201	BS&H	30	70	100	3	0	0	3
2	COMMUNICATIVE ENGLISH	R23CC1206	BS&H	30	70	100	3	0	0	2
3	ENGINEERING CHEMISTRY	R23CC1208	BS&H	30	70	100	3	0	0	3
4	ENGINEERING MECHANICS	R23CC1209	ES	30	70	100	3	0	0	3
5	BASIC CIVIL & MECHANICAL ENGINEERING	R23CC1212	ES	30	70	100	3	0	0	3
6	ENGINEERING WORKSHOP	R23CC12L9	ES	30	70	100	0	0	3	1.5
7	ENGINEERING MECHANICS LAB	R23ME12L7	ES	30	70	100	0	0	3	1.5
8	ENGINEERING CHEMISTRY LAB	R23CC12L11	BS&H	30	70	100	0	0	2	1
9	COMMUNICATIVE ENGLISH LAB	R23CC12L12	BS&H	30	70	100	0	0	2	1
10	HEALTH AND WELLNESS, YOGA AND SPORTS	R23CC12MC1	BS&H	100	-	100	-	-	1	0.5
TOTAL										19.5




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II B.TECH - I SEMESTER

S. No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Numerical Methods and Transform Techniques	R23CC2110	BS	30	70	100	3	0	0	3
2	Universal Human Values- Understanding Harmony & Ethical Human Conduct	R23CC2102	HSMC	30	70	100	2	1	0	3
3	Thermo dynamics	R23ME2103	ES	30	70	100	2	0	0	2
4	Mechanics of Solids	R23ME2104	PC	30	70	100	3	0	0	3
5	Material Science and Metallurgy	R23ME2105	PC	30	70	100	3	0	0	3
6	Mechanics of Solids and Materials Science Lab	R23ME21L1	PC	30	70	100	0	0	3	1.5
7	Computer-aided Machine Drawing	R23ME21L2	PC	30	70	100	0	0	3	1.5
8	Python programming Lab	R23ME21L3	ES	30	70	100	0	0	2	1.0
9	Embedded Systems & IoT	R23ME21L4	SC	30	70	100	0	1	2	2
10	Environmental Studies	R23CC21MC	MC	30	70	100	2	0	0	-
Total							15	2	10	20



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B.Tech - III Year II Semester

S. No.	Title	Course Code	Cat. Code	Internal Marks	External marks	Total Marks	L	T	P	Credits
1	Heat Transfer	R23ME3201	PC	30	70	100	3	0	0	3
2	Artificial Intelligence and Machine Learning	R23ME3202	PC	30	70	100	3	0	0	3
3	Finite Element Methods	R23ME3203	PC	30	70	100	3	0	0	3
Professional Elective - II										
4	Mechanical Vibrations	R23ME3204	PE	30	70	100	3	0	0	3
	Advanced Manufacturing Processes	R23ME3205								
	Micro Electro Mechanical Systems	R23ME3206								
	Sensors and Instrumentation	R23ME3207								
Professional Elective - III										
5	Energy Storage Technologies	R23ME3208	PE	30	70	100	3	0	0	3
	Industrial Hydraulics and Pneumatics	R23ME3209								
	Industrial Robotics	R23ME3210								
	Refrigeration & Air-Conditioning	R23ME3211								
Open Elective - II										
6	Introduction to Industrial Robotics	R23OE3209	OE	30	70	100	3	0	0	3
	Industrial Management	R23OE3210								
	Additive Manufacturing	R23OE3211								
	Vehicle Technology	R23OE3212								
	Industrial Safety	R23OE3213								
6	Heat Transfer Lab	R23ME32L1	PC	30	70	100	0	0	3	1.5
7	Artificial Intelligence and Machine Learning Lab	R23ME32L2	PC	30	70	100	0	0	3	1.5
8	Robotics and Drone Technologies Lab	R23ME32L3	SEC	30	70	100	0	0	4	2
9	Technical paper writing and IPR	R23ME32MC	AC	30	70	100	2	0	0	-
Total							20	0	10	23
Mandatory Industry Internship of 08 weeks duration during summer vacation										



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NARASARAOPETA ENGINEERING COLLEGE
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Induction Programme

S.No	Course Name	Category	L-T-P-C
1	Physical Activities -- Sports, Yoga and Meditation ,Plantation	MC	0-0-6-0
2	Career Counselling	MC	2-0-2-0
3	Orientation to all branches -- career options, tools, etc.	MC	3-0-0-0
4	Orientation on admitted Branch – corresponding labs, tools and platforms	EC	2-0-3-0
5	Proficiency Modules & Productivity Tools	ES	2-1-2-0
6	Assessment on basic aptitude and mathematical skills	MC	2-0-3-0
7	Remedial Training in Foundation Courses	MC	2-1-2-0
8	Human Values & Professional Ethics	MC	3-0-0-0
9	Communication Skills -- focus on Listening, Speaking, Reading, Writing skills	BS	2-1-2-0
10	Concepts of Programming	ES	2-0-2-0

I B.Tech. I SEMESTER

S.No	Subject	Course Code	Cat.Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Linear Algebra & Calculus	R23CC1101	BS&H	30	70	100	3	0	0	3
2	Introduction To Programming	R23CC1102	ES	30	70	100	3	0	0	3
3	Engineering Physics	R23CC1106	BS&H	30	70	100	3	0	0	3
4	Basic Electrical & Electronics Engineering	R23CC1107	ES	30	70	100	3	0	0	3
5	Engineering Graphics	R23CC1108	ES	30	70	100	1	0	4	3
6	Computer Programming Lab	R23CC11L1	ES	30	70	100	0	0	3	1.5
7	It Workshop	R23CC11L5	ES	30	70	100	0	0	2	1
8	Engineering Physics Lab	R23CC11L6	BS&H	30	70	100	0	0	2	1
9	Eee Workshop	R23CC11L7	ES	30	70	100	0	0	3	1.5
10	Nss/Ncc/Scouts&Guides/Community Service	R23CC11MC2	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

I B.Tech. II SEMESTER

S.No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Differential Equations & Vector Calculus	R23CC1201	BS&H	30	70	100	3	0	0	3
3	Communicative English	R23CC1206	BS&H	30	70	100	2	0	0	2
4	Chemistry	R23CC1207	BS&H	30	70	100	3	0	0	3
5	Network Analysis	R23EC1211	ES	30	70	100	3	0	0	3
2	Basic Civil & Mechanical Engineering	R23CC1212	ES	30	70	100	3	0	0	3
8	Na & Simulation Lab	R23EC12L6	ES	30	70	100	0	0	3	1.5
6	Engineering Workshop	R23CC12L9	ES	30	70	100	0	0	3	1.5
9	Chemistry Lab	R23CC12L10	BS&H	30	70	100	0	0	2	1
7	Communicative English Lab	R23CC12L12	BS&H	30	70	100	0	0	2	1
10	Health And Wellness, Yoga And Sports	R23CC12MC1	BS&H	100	-	100	-	-	1	0.5
Total										19.5





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II B.Tech. I SEMESTER

S.No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Probability theory and stochastic Process	R23EC2101	BS	30	70	100	3	0	0	3
2	Universal Human Values–Understanding Harmony and Ethical Human Conduct	R23CC2102	HSMC	30	70	100	2	1	0	3
3	Signals and Systems	R23EC2103	ES	30	70	100	3	0	0	3
4	Electronic Devices and Circuits	R23EC2104	PC	30	70	100	3	0	0	3
5	Switching Theory and Logic Design	R23EC2105	PC	30	70	100	3	0	0	3
6	Electronic Devices and Circuits Lab	R23EC21L1	PC	30	70	100	0	0	3	1.5
7	Signals and Systems Lab	R23EC21L2	PC	30	70	100	0	0	3	1.5
8	Data Structures using Python	R23EC21L3	SEC	30	70	100	0	1	2	2
Total							14	2	8	20



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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

II B.Tech. II SEMESTER

S.No	Subject	Course Code	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	Managerial Economics and Financial Analysis	R23CC2201	Management Course-1	30	70	100	2	0	0	2
2	Linear Control Systems	R23EC2202	ES	30	70	100	3	0	0	3
3	Electromagnetic Waves and Transmission Lines	R23EC2203	PC	30	70	100	3	0	0	3
4	Electronic Circuit Analysis	R23EC2204	PC	30	70	100	3	0	0	3
5	Analog Communications	R23EC2205	PC	30	70	100	3	0	0	3
6	Switching Theory and Logic Design Lab	R23EC22L1	PC	30	70	100	0	0	3	1.5
7	Electronic Circuit Analysis lab	R23EC22L2	PC	30	70	100	0	0	3	1.5
8	Soft Skills	R23EC22L4	SEC	30	70	100	0	1	2	2
9	Design Thinking & Innovation	R23EC22L3	ES	30	70	100	1	0	2	2
10	Environmental Studies	R23EC22MC	Audit Course	-	-	-	2	0	0	MC(0)
Total							17	1	10	21
Mandatory Community Service Project Internship of 08 weeks duration during summer Vacation.										



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Principal
 NARASARAOPETA ENGINEERING COLLEGE
 (AUTONOMOUS)
 NARASARAOPET - 522 601, Palnadu (Dist.), A.P.

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

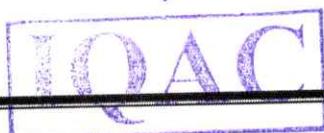
S.No	Subject	Course Code	Ca t. Co de	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	VLSI Design	R23EC3201	PC	30	70	100	3	0	0	3
2	Microprocessors & Microcontrollers	R23EC3202	PC	30	70	100	3	0	0	3
3	Digital Signal Processing	R23EC3203	PC	30	70	100	3	0	0	3
4	Analog IC Design	R23EC3204	PE-II	30	70	100	3	0	0	3
5	Satellite Communication	R23EC3205	PE-II	30	70	100	3	0	0	3
6	Smart and Wireless Instrumentation	R23EC3206	PE-II	30	70	100	3	0	0	3
7	Machine Learning	R23EC3207	PE-II	30	70	100	3	0	0	3
8	Bio Medical Instrumentation	R23EC3208	PE-III	30	70	100	3	0	0	3
9	Microwave Engineering	R23EC3209	PE-III	30	70	100	3	0	0	3
10	Embedded Systems	R23EC32010	PE-III	30	70	100	3	0	0	3
11	Artificial Intelligence	R23EC32011	PE-III	30	70	100	3	0	0	3
12			OE-II	30	70	100	3	0	0	3
13	VLSI Design Lab	R23EC32L1	PC	30	70	100	0	0	3	1.5
14	Microprocessors & Microcontrollers Lab	R23EC32L2	PC	30	70	100	0	0	3	1.5
15	Machine Learning Lab	R23EC32L3	SEC	30	70	100	0	1	2	2
16	Research methodology and IPR	R23EC32MC	AC	30	70	100	2	0	0	0
Total							20	1	8	23
MC	Student may select from the same minors pool			30	70	100	3	0	3	4.5
MC	Minor Course (Student may select from the same specialized minors pool)			30	70	100	3	0	0	3
HC	Student may select from the same honors pool			30	70	100	3	0	0	3
HC	Honors Course (Student may select from the honors pool)			30	70	100	3	0	0	3



B.TECH. - COURSE STRUCTURE – R23

INDUCTION PROGRAMME

S.No	Course Name	Category	L	T	P	CREDITS
1	Physical Activities -- Sports, Yoga and Meditation, Plantation	MC	0	0	6	0
2	Career Counselling	MC	2	0	2	0
3	Orientation to all branches -- career options, tools, etc.	MC	3	0	0	0
4	Orientation on admitted Branch -- corresponding labs, tools and platforms	EC	2	0	3	0
5	Proficiency Modules & Productivity Tools	ES	2	1	2	0
6	Assessment on basic aptitude and mathematical skills	MC	2	0	3	0
7	Remedial Training in Foundation Courses	MC	2	1	2	0
8	Human Values & Professional Ethics	MC	3	0	0	0
9	Communication Skills -- focus on Listening, Speaking, Reading, Writing skills	BS	2	1	2	0
10	Concepts of Programming	ES	2	0	2	0


Principal

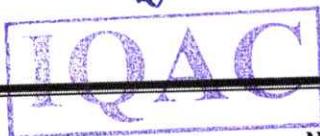
NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)

NARASARAOPETA - 522 601, Palnadu (Dist.), A.P.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

I B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1101	LINEAR ALGEBRA & CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1102	INTRODUCTION TO PROGRAMMING	ES	30	70	100	3	0	0	3
3	R23CC1103	COMMUNICATIVE ENGLISH	BS&H	30	70	100	2	0	0	2
4	R23CC1104	BASIC CIVIL AND MECHANICAL ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1105	CHEMISTRY	BS&H	30	70	100	3	0	0	3
6	R23CC11L1	COMPUTER PROGRAMMING LAB	ES	30	70	100	0	0	3	1.5
7	R23CC11L2	COMMUNICATIVE ENGLISH LAB	BS&H	30	70	100	0	0	2	1
8	R23CC11L3	ENGINEERING WORKSHOP	ES	30	70	100	0	0	3	1.5
9	R23CC11L4	CHEMISTRY LAB	BS&H	30	70	100	0	0	2	1
10	R23CC11L5	HEALTH AND WELLNESS, YOGA AND SPORTS	BS&H	30	70	100	-	-	1	0.5
TOTAL										19.5



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Principal

NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

I B.TECH - II SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1201	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1202	DATA STRUCTURES	PC	30	70	100	3	0	0	3
3	R23CC1203	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	ES	30	70	100	3	0	0	3
4	R23CC1204	ENGINEERING GRAPHICS	ES	30	70	100	1	0	4	3
5	R23CC1205	ENGINEERING PHYSICS	BS&H	30	70	100	3	0	0	3
6	R23CC12L1	DATA STRUCTURES LAB	PC	30	70	100	0	0	3	1.5
7	R23CC12L2	IT WORKSHOP	ES	30	70	100	0	0	2	1
8	R23CC12L3	ELECTRICAL AND ELECTRONICS ENGINEERING WORKSHOP	ES	30	70	100	0	0	3	1.5
9	R23CC12L7	ENGINEERING PHYSICS LAB	BS&H	30	70	100	0	0	2	1
10	R23CC12A1	NSS/NCC/SCOUTS & GUIDES/ COMMUNITY SERVICE	BS&H	30	70	100	-	-	1	0.5
TOTAL										20.5





Principal

NARASARAOPETA ENGINEERING COLLEGE

NARASARAOPETA - 522 601, Painadu (Dist.), A.P.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

II B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC2101	Discrete Mathematics & Graph Theory	BS&H	30	70	100	3	0	0	3
2	R23CC2102	Universal Human Values– Understanding Harmony	BS&H	30	70	100	2	1	0	3
3	R23CC2103	Digital Logic & Computer Organization	ES	30	70	100	3	0	0	3
4	R23CC2104	Advanced Data Structures & Algorithm Analysis	PC	30	70	100	3	0	0	3
5	R23CC2105	Object Oriented Programming Through Java	PC	30	70	100	3	0	0	3
6	R23CC21L1	Advanced Data Structures and Algorithm Analysis Lab	PC	30	70	100	0	0	3	1.5
7	R23CC21L2	Object Oriented Programming Through Java Lab	PC	30	70	100	0	0	3	1.5
8	R23CC21L3	Python Programming	SC	30	70	100	0	1	2	2
9	R23CC21MC	Environmental Studies	AC	30	70	100	2	0	0	-
TOTAL										20



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NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)
NARASARAOPET - 522 601, Palnadu (Dist.), A.P.



I B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1101	LINEAR ALGEBRA & CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1102	INTRODUCTION TO PROGRAMMING	ES	30	70	100	3	0	0	3
3	R23CC1106	ENGINEERING PHYSICS	BS&H	30	70	100	2	0	0	3
4	R23CC1107	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1108	ENGINEERING GRAPHICS	ES	30	70	100	3	0	0	3
6	R23CC11L1	COMPUTER PROGRAMMING LAB	ES	30	70	100	0	0	3	1.5
7	R23CC11L5	IT WORKSHOP	ES	30	70	100	0	0	2	1
8	R23CC11L6	ENGINEERING PHYSICS LAB	ES	30	70	100	0	0	3	1
9	R23CC11L7	EEE WORKSHOP	ES	30	70	100	0	0	2	1.5
10	R23CC11MC2	NSS/NCC/SCOUTS & GUIDES/ COMMUNITY SERVICE	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



Principal
 NARASARAOPETA ENGINEERING COLLEGE
 (AUTONOMOUS)
 NARASARAOPETA - 522 601, Palnadu (Dist.), A.P.



I B.TECH - II SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1201	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1202	DATA STRUCTURES	PC	30	70	100	3	0	0	3
3	R23CC1206	COMMUNICATIVE ENGLISH	BS&H	30	70	100	1	0	4	2
4	R23CC1207	CHEMISTRY	BS&H	30	70	100	3	0	0	3
5	R23CC1212	BASIC CIVIL AND MECHANICAL ENGINEERING	ES	30	70	100	3	0	0	3
6	R23CC12L1	DATA STRUCTURES LAB	PC	30	70	100	0	0	3	1.5
7	R23CC12L9	ENGINEERING WORKSHOP	ES	30	70	100	0	0	2	1.5
8	R23CC12L10	CHEMISTRY LAB	BS&H	30	70	100	0	0	2	1
9	R23CC12L12	COMMUNICATIVE ENGLISH LAB	ES	30	70	100	0	0	3	1
10	R23CC12MC1	HEALTH & WELLNESS, YOGA & SPORTS	BS&H	100	-	100	-	-	1	0.5
TOTAL										19.5



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**R23 II YEAR COURSE STRUCTURE****II YEAR I SEMESTER**

S.No.	Subject Code	Category	Title	L	T	P	Credits
1	R23CC2101	BS&H	Discrete Mathematics & Graph Theory	3	0	0	3
2	R23CC2102	BS&H	Universal human values – understanding harmony and Ethical human conduct	2	1	0	3
3	R23CC2106	Engineering Science	Artificial Intelligence	3	0	0	3
4	R23CC2104	Professional Core	Advanced Data Structures & Algorithms Analysis	3	0	0	3
5	R23CC2105	Professional Core	Object Oriented Programming Through Java	3	0	0	3
6	R23CC21L1	Professional Core	Advanced Data Structures and Algorithms Analysis Lab	0	0	3	1.5
7	R23CC21L2	Professional Core	Object Oriented Programming Through Java Lab	0	0	3	1.5
8	R23CC21L3	Skill Enhancement course	Python programming	0	1	2	2
Total				14	2	8	20



Principal

NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)

NARASARAOPET - 522 601, Palnadu (Dist.), A.P



II YEAR II SEMESTER

S. No.	Subject Code	Category	Title	L	T	P	Credits
1	R23CC2208	Management Course- I	Optimization Techniques	2	0	0	2
2	R23CC2202	Engineering Science/ Basic Science	Probability & Statistics	3	0	0	3
3	R23CC2206	Professional Core	Machine Learning	3	0	0	3
4	R23CC2204	Professional Core	Database Management Systems	3	0	0	3
5	R23CC2207	Professional Core	Digital Logic & Computer Organization	3	0	0	3
6	R23AM22L4	Professional Core	Machine Learning Lab	0	0	3	1.5
7	R23CC22L1	Professional Core	Database Management Systems Lab	0	0	3	1.5
8	R23CC22L2	Skill Enhancement course	Full Stack Development - 1	0	1	2	2
9	R23CC22L3	BS&H	Design Thinking & Innovation	1	0	2	2
10	R23CC22MC	Audit Course	Environmental Studies	2	0	0	-
Total				17	1	10	21
Mandatory Community Service Project Internship of 08 weeks duration during summer Vacation							



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DEPARTMENT OF CSE(ARTIFICIAL INTELLIGENCE)

I B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1101	LINEAR ALGEBRA & CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1102	INTRODUCTION TO PROGRAMMING	ES	30	70	100	3	0	0	3
3	R23CC1104	ENGINEERING PHYSICS	BS&H	30	70	100	3	0	0	3
4	R23CC1106	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1107	ENGINEERING GRAPHICS	ES	30	70	100	1	0	4	3
6	R23CC11A1	HEALTH AND WELLNESS, YOGA AND SPORTS	BS&H	30	70	100	-	-	1	0.5
7	R23CC11L3	ENGINEERING PHYSICS LAB	BS&H	30	70	100	0	0	2	1
8	R23CC11L4	ENGINEERING WORKSHOP	ES	30	70	100	0	0	3	1.5
9	R23CC11L5	COMPUTER PROGRAMMING LAB	ES	30	70	100	0	0	3	1.5
10	R23CC11L7	ELECTRICAL AND ELECTRONICS ENGINEERING WORKSHOP	ES	30	70	100	0	0	3	1.5
TOTAL										21



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Principal

DEPARTMENT OF CSE(ARTIFICIAL INTELLIGENCE)

I B.TECH - II SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1201	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1202	COMMUNICATIVE ENGLISH	BS&H	30	70	100	2	0	0	2
3	R23CC1203	CHEMISTRY	BS&H	30	70	100	3	0	0	3
4	R23CC1207	BASIC CIVIL AND MECHANICAL ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1208	DATA STRUCTURES	PC	30	70	100	3	0	0	3
6	R23CC12L1	CHEMISTRY LAB	BS&H	30	70	100	0	0	2	1
7	R23CC12L3	COMMUNICATIVE ENGLISH LAB	BS&H	30	70	100	0	0	2	1
8	R23CC12L6	IT WORKSHOP	ES	30	70	100	0	0	2	1
9	R23CC12L7	DATA STRUCTURES LAB	PC	30	70	100	0	0	3	1.5
10	R23CC12A1	NSS/NCC/SCOUTS & GUIDES/ COMMUNITY SERVICE	BS&H	30	70	100	-	-	1	0.5
TOTAL										19


IOAC


Principal
NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)

NARASARAOPETA - 522 001, Palnadu (Dist.) A.P.

DEPARTMENT OF CSE(ARTIFICIAL INTELLIGENCE)

II B.TECH- I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC2101	Discrete Mathematics & Graph Theory	BS&H	30	70	100	3	0	0	3
2	R23CC2102	Universal Human Values-Understanding Harmony	BS&H	30	70	100	2	1	0	0
3	R23CC2103	Artificial Intelligence	ES	30	70	100	3	0	0	3
4	R23CC2104	Advanced Data Structures & Algorithm Analysis	PC	30	70	100	3	0	0	3
5	R23CC2105	Object Oriented Programming Through Java	PC	30	70	100	3	0	0	3
6	R23CC21L1	Advanced Data Structures and Algorithm Analysis Lab	PC	30	70	100	0	0	3	1.5
7	R23CC21L2	Object Oriented Programming Through Java Lab	PC	30	70	100	0	0	3	1.5
8	R23CC21L3	Python Programming	SC	30	70	100	0	1	2	2
9	R23CC21MC	Environmental Studies	AC	30	70	100	2	0	0	-
TOTAL										20



IOAC

Principal
 NARASARAOPETA ENGINEERING COLLEGE
 (AUTONOMOUS)
 NARASARAOPETA, SRI SAILAM DISTRICT, A.P.

DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



I B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1101	LINEAR ALGEBRA & CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1102	INTRODUCTION TO PROGRAMMING	ES	30	70	100	3	0	0	3
3	R23CC1106	ENGINEERING PHYSICS	BS&H	30	70	100	2	0	0	3
4	R23CC1107	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1108	ENGINEERING GRAPHICS	ES	30	70	100	3	0	0	3
6	R23CC11L1	COMPUTER PROGRAMMING LAB	ES	30	70	100	0	0	3	1.5
7	R23CC11L5	IT WORKSHOP	ES	30	70	100	0	0	2	1
8	R23CC11L6	ENGINEERING PHYSICS LAB	ES	30	70	100	0	0	3	1
9	R23CC11L7	EEE WORKSHOP	ES	30	70	100	0	0	2	1.5
10	R23CC11MC2	NSS/NCC/SCOUTS & GUIDES/ COMMUNITY SERVICE	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



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Principal

NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)

NARASARAOPETA - 522 601, Palbadu (Dist.), A.P



I B.TECH - II SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1201	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1202	DATA STRUCTURES	PC	30	70	100	3	0	0	3
3	R23CC1206	COMMUNICATIVE ENGLISH	BS&H	30	70	100	1	0	4	2
4	R23CC1207	CHEMISTRY	BS&H	30	70	100	3	0	0	3
5	R23CC1212	BASIC CIVIL AND MECHANICAL ENGINEERING	ES	30	70	100	3	0	0	3
6	R23CC12L1	DATA STRUCTURES LAB	PC	30	70	100	0	0	3	1.5
7	R23CC12L9	ENGINEERING WORKSHOP	ES	30	70	100	0	0	2	1.5
8	R23CC12L10	CHEMISTRY LAB	BS&H	30	70	100	0	0	2	1
9	R23CC12L12	COMMUNICATIVE ENGLISH LAB	ES	30	70	100	0	0	3	1
10	R23CC12MC 1	HEALTH & WELLNESS, YOGA & SPORTS	BS&H	100	-	100	-	-	1	0.5
TOTAL										19.5



[Signature]
Principal

**R23 II YEAR COURSE STRUCTURE****II YEAR I SEMESTER**

S.No.	Subject Code	Category	Title	L	T	P	Credits
1	R23CC2101	BS&H	Discrete Mathematics & Graph Theory	3	0	0	3
2	R23CC2102	BS&H	Universal human values – understanding harmony and Ethical human conduct	2	1	0	3
3	R23CC2106	Engineering Science	Artificial Intelligence	3	0	0	3
4	R23CC2104	Professional Core	Advanced Data Structures & Algorithms Analysis	3	0	0	3
5	R23CC2105	Professional Core	Object Oriented Programming Through Java	3	0	0	3
6	R23CC21L1	Professional Core	Advanced Data Structures and Algorithms Analysis Lab	0	0	3	1.5
7	R23CC21L2	Professional Core	Object Oriented Programming Through Java Lab	0	0	3	1.5
8	R23CC21L3	Skill Enhancement course	Python programming	0	1	2	2
Total				14	2	8	20



DEPARTMENT OF ARTIFICIAL INTELLIGENCE & MACHINE LEARNING



II YEAR II SEMESTER

S.No.	Subject Code	Category	Title	L	T	P	Credits
1	R23CC2208	Management Course- I	Optimization Techniques	2	0	0	2
2	R23CC2202	Engineering Science/ Basic Science	Probability & Statistics	3	0	0	3
3	R23CC2206	Professional Core	Machine Learning	3	0	0	3
4	R23CC2204	Professional Core	Database Management Systems	3	0	0	3
5	R23CC2207	Professional Core	Digital Logic & Computer Organization	3	0	0	3
6	R23AM22L5	Professional Core	AI &ML Lab	0	0	3	1.5
7	R23CC22L1	Professional Core	Database Management Systems Lab	0	0	3	1.5
8	R23CC22L2	Skill Enhancement course	Full Stack Development - 1	0	1	2	2
9	R23CC22L3	BS&H	Design Thinking &Innovation	1	0	2	2
10	R23CC22MC	Audit Course	Environmental Studies	2	0	0	-
Total				17	1	10	21
Mandatory Community Service Project Internship of 08 weeks duration during summer Vacation							



Narasaraopeta Engineering College (Autonomous)



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Principal

NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)
NARASARAOPET - 522 601, Palnadu (Dist.), A.P.

DEPARTMENT OF CSE (CYBER SECURITY)



I B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1101	LINEAR ALGEBRA & CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1102	INTRODUCTION TO PROGRAMMING	ES	30	70	100	3	0	0	3
3	R23CC1106	ENGINEERING PHYSICS	BS&H	30	70	100	2	0	0	3
4	R23CC1107	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1108	ENGINEERING GRAPHICS	ES	30	70	100	3	0	0	3
6	R23CC11L1	COMPUTER PROGRAMMING LAB	ES	30	70	100	0	0	3	1.5
7	R23CC11L5	IT WORKSHOP	ES	30	70	100	0	0	2	1
8	R23CC11L6	ENGINEERING PHYSICS LAB	ES	30	70	100	0	0	3	1
9	R23CC11L7	EEE WORKSHOP	ES	30	70	100	0	0	2	1.5
10	R23CC11MC2	NSS/NCC/SCOUTS & GUIDES/ COMMUNITY SERVICE	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



Narasaraopeta Engineering College (Autonomous)

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Principal
NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)
NARASARAOPET - 522 601, Palnadu (Dist.), A.P.

DEPARTMENT OF CSE (CYBER SECURITY)



I B.TECH - II SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1201	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1202	DATA STRUCTURES	PC	30	70	100	3	0	0	3
3	R23CC1206	COMMUNICATIVE ENGLISH	BS&H	30	70	100	1	0	4	2
4	R23CC1207	CHEMISTRY	BS&H	30	70	100	3	0	0	3
5	R23CC1212	BASIC CIVIL AND MECHANICAL ENGINEERING	ES	30	70	100	3	0	0	3
6	R23CC12L1	DATA STRUCTURES LAB	PC	30	70	100	0	0	3	1.5
7	R23CC12L9	ENGINEERING WORKSHOP	ES	30	70	100	0	0	2	1.5
8	R23CC12L10	CHEMISTRY LAB	BS&H	30	70	100	0	0	2	1
9	R23CC12L12	COMMUNICATIVE ENGLISH LAB	ES	30	70	100	0	0	3	1
10	R23CC12MC1	HEALTH & WELLNESS, YOGA & SPORTS	BS&H	100	-	100	-	-	1	0.5
TOTAL										19.5



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NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)
NARASARAOPET - 522 601, Patnadu (Dist.), A.P.

**R23 II YEAR COURSE STRUCTURE****II YEAR I SEMESTER:**

S.No.	Subcode	Category	Title	L	T	P	Credits
1	R23CC2101	BS&H	Discrete Mathematics & Graph Theory	3	0	0	3
2	R23CC2102	BS&H	Universal human values – understanding harmony and Ethical human conduct	2	1	0	3
3	R23CC2103	Engineering Science	Digital Logic and Computer Organization	3	0	0	3
4	R23CC2104	Professional Core	Advanced Data Structures & Algorithms Analysis	3	0	0	3
5	R23CC2105	Professional Core	Object Oriented Programming Through Java	3	0	0	3
6	R23CC21L1	Professional Core	Advanced Data Structures and Algorithms Analysis Lab	0	0	3	1.5
7	R23CC21L2	Professional Core	Object Oriented Programming Through Java Lab	0	0	3	1.5
8	R23CC21L3	Skill Enhancement course	Python programming	0	1	2	2
Total				14	2	8	20



DEPARTMENT OF CSE (CYBER SECURITY)



II YEAR II SEMESTER:

S.No.	Subcode	Category	Title	L	T	P	Credits
1	R23CC2201	Management Course- I	Managerial Economics And Financial Analysis	2	0	0	2
2	R23CY2202	Engineering Science / Basic Science	Number Theory & Applications	3	0	0	3
3	R23CC2203	Professional Core	Operating Systems	3	0	0	3
4	R23CC2204	Professional Core	Database Management Systems	3	0	0	3
5	R23CY2205	Professional Core	Computer Networks	3	0	0	3
6	R23CY22L4	Professional Core	Operating Systems & Computer Networks Lab	0	0	3	1.5
7	R23CC22L1	Professional Core	Database Management Systems Lab	0	0	3	1.5
8	R23CC22L2	Skill Enhancement Course	Full Stack Development-1	0	1	2	2
9	R23CC22L3	BS&H	Design Thinking & Innovation	1	0	2	2
10	R23CC22MC	Audit Course	Environmental Studies	2	0	0	-
Total				17	1	10	21
Mandatory Community Service Project Internship of 08 weeks duration during summer Vacation							



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NARASARAOPET - 522 601, Painadu (Dist.), A.P.



DEPARTMENT OF CSE (DATA SCIENCE)



I B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1101	LINEAR ALGEBRA & CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1102	INTRODUCTION TO PROGRAMMING	ES	30	70	100	3	0	0	3
3	R23CC1106	ENGINEERING PHYSICS	BS&H	30	70	100	2	0	0	3
4	R23CC1107	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1108	ENGINEERING GRAPHICS	ES	30	70	100	3	0	0	3
6	R23CC11L1	COMPUTER PROGRAMMING LAB	ES	30	70	100	0	0	3	1.5
7	R23CC11L5	IT WORKSHOP	ES	30	70	100	0	0	2	1
8	R23CC11L6	ENGINEERING PHYSICS LAB	ES	30	70	100	0	0	3	1
9	R23CC11L7	EEE WORKSHOP	ES	30	70	100	0	0	2	1.5
10	R23CC11MC2	NSS/NCC/SCOUTS & GUIDES/ COMMUNITY SERVICE	BS&H	100	-	100	-	-	1	0.5
TOTAL										20.5



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 NARASARAOPETA ENGINEERING COLLEGE
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 NARASARAOPET - 522 601, Palnadu (Dist.), A.P.

DEPARTMENT OF CSE (DATA SCIENCE)



I B.TECH - II SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1201	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1202	DATA STRUCTURES	PC	30	70	100	3	0	0	3
3	R23CC1206	COMMUNICATIVE ENGLISH	BS&H	30	70	100	1	0	4	2
4	R23CC1207	CHEMISTRY	BS&H	30	70	100	3	0	0	3
5	R23CC1212	BASIC CIVIL AND MECHANICAL ENGINEERING	ES	30	70	100	3	0	0	3
6	R23CC12L1	DATA STRUCTURES LAB	PC	30	70	100	0	0	3	1.5
7	R23CC12L9	ENGINEERING WORKSHOP	ES	30	70	100	0	0	2	1.5
8	R23CC12L1 0	CHEMISTRY LAB	BS&H	30	70	100	0	0	2	1
9	R23CC12L1 2	COMMUNICATIVE ENGLISH LAB	ES	30	70	100	0	0	3	1
10	R23CC12M C1	HEALTH & WELLNESS, YOGA & SPORTS	BS&H	100	-	100	-	-	1	0.5
TOTAL										19.5



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NARASARAOPETA ENGINEERING COLLEGE
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NARASARAOPET - 522 601, Palnadu (Dist.), A.P

**R23 II YEAR COURSE STRUCTURE****II YEAR I SEMESTER**

S.No.	Subcode	Category	Title	L	T	P	Credits
1	R23CC2101	BS&H	Discrete Mathematics & Graph Theory	3	0	0	3
2	R23CC2102	BS&H	Universal human values understanding harmony and ethical human conduct	2	1	0	3
3	R23DS2107	Engineering Science	Introduction to Data Science	3	0	0	3
4	R23CC2104	Professional Core	Advanced Data Structures & Algorithms Analysis	3	0	0	3
5	R23CC2105	Professional Core	Object Oriented Programming Through Java	3	0	0	3
6	R23DS21L1	Professional Core	Data Science Lab	0	0	3	1.5
7	R23CC21L2	Professional Core	Object Oriented Programming Through Java Lab	0	0	3	1.5
8	R23CC21L3	Skill Enhancement course	Python programming	0	1	2	2
Total				14	2	8	20



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 NARASARAOPETA - 522 601, Palnadu (Dist.), A.P.

DEPARTMENT OF CSE (DATA SCIENCE)



II YEAR II SEMESTER

S.No.	Subcode	Category	Title	L	T	P	Credits
1	R23CC2208	Management Course-I	Optimization Techniques	2	0	0	2
2	R23DS2201	Engineering Science/ Basic Science	Statistical Methods for Data Science	3	0	0	3
3	R23DS2202	Professional Core	Data Engineering	3	0	0	3
4	R23CC2204	Professional Core	Database Management Systems	3	0	0	3
5	R23DS2203	Professional Core	Computer Organization and Architecture	3	0	0	3
6	R23DS22L2	Professional Core	Data Engineering Lab	0	0	3	1.5
7	R23CC22L1	Professional Core	DBMS Lab	0	0	3	1.5
8	R23DS22L4	Skill Enhancement course	Exploratory Data Analysis with Python	0	1	2	2
9	R23CC22L3	BS&H	Design Thinking &Innovation	1	0	2	2
10	R23CC22MC	BS&H	Environmental Studies	2	0	0	-
Total				17	1	10	21
Mandatory Community Service Project Internship of 08 weeks duration during summer Vacation							



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NARASARAOPETA ENGINEERING COLLEGE
(AUTONOMOUS)



NARASARAOPETA - 522 601, Palnadu (Dist.), A.P.

DEPARTMENT OF INFORMATION TECHNOLOGY

I B.TECH - I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1101	LINEAR ALGEBRA & CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1102	INTRODUCTION TO PROGRAMMING	ES	30	70	100	3	0	0	3
3	R23CC1104	ENGINEERING PHYSICS	BS&H	30	70	100	3	0	0	3
4	R23CC1106	BASIC ELECTRICAL & ELECTRONICS ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1107	ENGINEERING GRAPHICS	ES	30	70	100	1	0	4	3
6	R23CC11A1	HEALTH AND WELLNESS, YOGA AND SPORTS	BS&H	30	70	100	-	-	1	0.5
7	R23CC11L3	ENGINEERING PHYSICS LAB	BS&H	30	70	100	0	0	2	1
8	R23CC11L4	ENGINEERING WORKSHOP	ES	30	70	100	0	0	3	1.5
9	R23CC11L5	COMPUTER PROGRAMMING LAB	ES	30	70	100	0	0	3	1.5
10	R23CC11L7	ELECTRICAL AND ELECTRONICS ENGINEERING WORKSHOP	ES	30	70	100	0	0	3	1.5
TOTAL										21

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 Principal

DEPARTMENT OF INFORMATION TECHNOLOGY

I B.TECH - II SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC1201	DIFFERENTIAL EQUATIONS & VECTOR CALCULUS	BS&H	30	70	100	3	0	0	3
2	R23CC1202	COMMUNICATIVE ENGLISH	BS&H	30	70	100	2	0	0	2
3	R23CC1203	CHEMISTRY	BS&H	30	70	100	3	0	0	3
4	R23CC1207	BASIC CIVIL AND MECHANICAL ENGINEERING	ES	30	70	100	3	0	0	3
5	R23CC1208	DATA STRUCTURES	PC	30	70	100	3	0	0	3
6	R23CC12L1	CHEMISTRY LAB	BS&H	30	70	100	0	0	2	1
7	R23CC12L3	COMMUNICATIVE ENGLISH LAB	BS&H	30	70	100	0	0	2	1
8	R23CC12L6	IT WORKSHOP	ES	30	70	100	0	0	2	1
9	R23CC12L7	DATA STRUCTURES LAB	PC	30	70	100	0	0	3	1.5
10	R23CC12A1	NSS/NCC/SCOUTS & GUIDES/ COMMUNITY SERVICE	BS&H	30	70	100	-	-	1	0.5
TOTAL										19



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NARASARAOPETA ENGINEERING COLLEGE
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DEPARTMENT OF INFORMATION TECHNOLOGY

II B.TECH- I SEMESTER

S.No	Subject Code	Subject	Cat. Code	Internal Marks	External Marks	Total Marks	L	T	P	Credits
1	R23CC2101	Discrete Mathematics & Graph Theory	BS&H	30	70	100	3	0	0	3
2	R23CC2102	Universal Human Values– Understanding Harmony	BS&H	30	70	100	2	1	0	3
3	R23CC2103	Digital Logic & Computer Organization	ES	30	70	100	3	0	0	3
4	R23CC2104	Advanced Data Structures & Algorithm Analysis	PC	30	70	100	3	0	0	3
5	R23CC2105	Object Oriented Programming Through Java	PC	30	70	100	3	0	0	3
6	R23CC21L1	Advanced Data Structures and Algorithm Analysis Lab	PC	30	70	100	0	0	3	1.5
7	R23CC21L2	Object Oriented Programming Through Java Lab	PC	30	70	100	0	0	3	1.5
8	R23CC21L3	Python Programming	SC	30	70	100	0	1	2	2
9	R23CC21MC	Environmental Studies	AC	30	70	100	2	0	0	-
TOTAL										20



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