

# JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR (Established by Govt. of A.P., ACT No.30 of 2008) ANANTHAPURAMU – 515 002 (A.P.) INDIA

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## B. Tech (Regular-Full time)

(Effective for the students admitted into I year from the Academic Year 2023-24 onwards)

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### B.Tech. (Lateral Entry Scheme)

(Effective for the students admitted into II year through Lateral Entry Scheme from the Academic Year 2024 - 25 onwards)

#### **B.TECH. - COURSE STRUCTURE - R23**

(Applicable from the academic year 2023-24 onwards)

#### **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.	МС	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

GROUP A: CSE, EEE, Food Technology, Chemical Engineering

B.Tech. - I Year I Semester

S.No.	Category	Title	L/D	T	P	Credits
1	BS&H	Communicative English	2	0	0	2
2	BS&H	Engineering Chemistry/ Chemistry/Fundamental Chemistry	3	0	0	3
3	BS&H	Linear Algebra & Calculus	3	0	0	3
4	Engineering Science	Basic Civil & Mechanical Engineering	3	0	0	3
5	Engineering Science	Introduction to Programming	3	0	0	3
6	BS&H	Communicative English Lab	0	0	2	1
7	BS&H	Engineering Chemistry/ Chemistry/Fundamental Chemistry Lab	0	0	2	1
8	Engineering Science	Engineering Workshop	0	0	3	1.5
9	Engineering Science	Computer Programming Lab	0	0	3	1.5
10	BS&H	Health and wellness, Yoga and Sports	1-	-	1	0.5
		Total	14	00	11	19.5

GROUP B: Civil Engineering, Mechanical Engineering, ECE & Allied, CSE-Allied & IT

#### B.Tech. - I Year I Semester

S.No.	Category	Title	L/D	Т	P	Credits
1	BS&H	Engineering Physics	3	0	0	3
2	BS&H	Linear Algebra & Calculus	3	0	0	3
3	Engineering Science	Basic Electrical & Electronics Engineering	3	0	0	3
4	Engineering Science	Engineering Graphics	1	0	4	3
5	Engineering Science	Introduction to Programming	3	0	0	3
6	Engineering Science	IT Workshop	0	0	2	1
7	BS&H	Engineering Physics Lab	0	0	2	1
8	Engineering Science	Electrical & Electronics Engineering Workshop	0	0	3	1.5
9	Engineering Science	Computer Programming Lab	0	0	3	1.5
10	BS&H	NSS/NCC/Scouts & Guides/Community Service	-	-	1	0.5
	Total		13	00	15	20.5

GROUP A: GROUP A: CSE, EEE, Food Technology, Chemical Engineering B.Tech. – I Year II Semester

S.No.	Category	Title	L/D	T	P	Credits
1	BS&H	Engineering Physics	3	0	0	3
2	BS & H	Differential Equations & Vector Calculus	3	0	0	3
3	Engineering Science	Basic Electrical and Electronics Engineering	3	0	0	3
4	Engineering Science	Engineering Graphics	1	0	4	3
5	Engineering Science	IT Workshop	0	0	2	1
6	Professional Core	Data Structures / Electrical Circuit Analysis – I (Branch specific)	3	0	0	3
7	BS&H	Engineering Physics Lab	0	0	2	1
8	Engineering Science	Electrical and Electronics Engineering Workshop	0	0	3	1.5
9	Professional Core	Data Structures Lab / Electrical Circuit Analysis – I Lab	0	0	3	1.5
10	BS&H	NSS/NCC/Scouts & Guides/Community Service	-	-	1	0.5
	Total				15	20.5

#### GROUP A: Civil Engineering, Mechanical Engineering, ECE & Allied, CSE-Allied & IT

#### B.Tech. – I Year II Semester

S.No.	Category	Title	L	T	P	Credits
1	BS&H	Communicative English	2	0	0	2
2	BS & H	Engineering Chemistry / Chemistry / Fundamental Chemistry	3	0	0	3
3	Engineering Science	Differential Equations & Vector Calculus	3	0	0	3
4	Engineering Science	Basic Civil & Mechanical Engineering	3	0	0	3
5	Professional Core	Engineering Mechanics/Network Analysis/ Data structures (Branch specific)	3	0	0	3
6	BS&H	Communicative English Lab	0	0	2	1
7	BS&H	Engineering Chemistry / Chemistry / Fundamental Chemistry Lab	0	0	2	1
8	Engineering Science	Engineering Workshop	0	0	3	1.5
9	Professional Core	Engineering Mechanics & Building Practices Lab Engineering Mechanics Lab/ Network Analysis Lab/ Data structures Lab	0	0	3	1.5
10	BS&H	Health and wellness, Yoga and Sports	-	-	1	0.5
		Total	14	0	11	19.5

B.Tech. – II Year I Semester

S.No.	Category	Title	L	T	P	Credits
1	BS&H	Engineering Mathematics (Branch specific)	3	0	0	3
2	BS&H	Universal Human Values – Understanding Harmony	2	1	0	3
3	Engineering Science		2	0	0	2
4	Professional Core		3	0	0	3
5	Professional Core		3	0	0	3
6	Engineering Science		0	0	2	1
7	Professional Core		0	0	3	1.5
8	Professional Core		0	0	3	1.5
9	Skill Enhancement course		0	1	2	2
10	Audit Course	Environmental Science	2	0	0	-
	Tota	15	2	10	20	

#### B.Tech. - II Year II Semester

S.No.	Category	Title	L	T	P	Credits
1	Management Course - I		2	0	0	2
2	Engineering Science		3	0	0	3
3	Professional Core		3	0	0	3
4	Professional Core		3	0	0	3
5	Professional Core		3	0	0	3
6	Professional Core		0	0	2	1
7	Professional Core		0	0	3	1.5
8	Professional Core		0	0	3	1.5
9	Skill Enhancement course		0	1	2	2
10	BS&H	Design Thinking & Innovation	1	0	2	2
	Total		15	1	12	22

Mandatory Community Service Project Internship of 08 weeks duration during summer vacation

B.Tech. - III Year I Semester

S.No.	Category	Title	L	T	P	Credits
1	Professional Core		3	0	0	3
2	Professional Core		3	0	0	3
3	Professional Elective - I		2	0	0	2
4	Open Elective - I		3	0	0	3
5	Open Elective - II		3	0	0	3
6	Professional Core		0	0	3	1.5
7	Professional Core		0	0	3	1.5
8	Skill Enhancement course		0	1	2	2
9	BS&H	Tinkering Lab	0	0	2	1
10	Evaluation of Community Service Internship		-	-	-	2
	Total		14	1	10	22

#### B.Tech. – III Year II Semester

S.No.	Category	Title	L	T	P	Credits
1	Professional Core		3	0	0	3
2	Professional Core		3	0	0	3
3	Professional Core		3	0	0	3
4	Professional Elective - II		3	0	0	3
5	Professional Elective - III		2	0	0	2
6	Open Elective - III		3	0	0	3
7	Professional Core		0	0	2	1
8	Professional Core		0	0	2	1
9	Skill Enhancement course		0	1	2	2
10	Audit Course	Technical Paper	2	0	0	-
		Writing & IPR				
	Total		19	1	06	21
	Mandatory Industry Internship or	f 08 weeks duration d	uring su	mmer v	acation	1

B.Tech. – IV Year I Semester

S.No.	Category	Title	L	T	P	Credits
1	Professional Core		3	0	0	3
2	Professional Core		3	0	0	3
3	Management Course - II		2	0	0	2
4	Professional Elective - IV		3	0	0	3
5	Professional Elective - V		3	0	0	3
6	Open Elective - IV		3	0	0	3
7	Professional Core		0	0	2	1
8	Professional Core		0	0	2	1
9	Skill Enhancement Course		0	1	2	2
10	Audit Course	Constitution of India	2	0	0	-
11	Internship	Evaluation of Industry	-	-	_	2
		Internship				
	Total		19	1	06	23

#### B.Tech. – IV Year II Semester

S.No.	Category	Title	L	T	P	Credits
1	Internship & Project Work	Full semester Internship	0	0	24	12
		& Project Work				