

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY  
ANANTAPUR**

**Course structure for B.Tech. (Regular) I year (2009-10) for  
affiliated Engineering Colleges.**

**ELECTRICAL AND ELECTRONICS ENGINEERING (E.E.E.)  
(Common for Branches: E.C.E., E.E.E., E.I.E., C.S.E., I.T.,  
C.S.S.E., E.Cont.E., E.C.M.)**

Sl. No	Course code	Subject	Th	Tu/Drg/Lab	Credits
1.	9ABS101	English	2		4
2.	9ABS102	Engineering Physics	2		4
3.	9ABS103	Engineering Chemistry	2		4
4.	9ABS104	Mathematics – I	3	1 - -	6
5.	9A05101	Programming in C and Data Structures	3	1 - -	6
6.	9A03101	Engineering Drawing *		- 6 -	6
7.	9ABS105	Mathematical Methods	3	1 - -	6
8.	9A05102	C Programming & Data Structures Lab		- - 3	4
9.	9A03102	Engineering & I.T. Workshop #		- - 3	4
10.	9ABS106	Engineering Physics and Engineering Chemistry Lab **		- - 3	4
11.	9ABS107	English Language & Communication Skills Lab		- - 3	4
		contact periods/week	15	3 6 12	
			Total /week		36
Total Credits (7 Theory + 4 Labs)					52

Th = Theory; Tu = Tutorial; Drg = Drawing & Lab = Laboratory:

\* Engineering Drawing will have University External Exam.

\*\* The Students attend the Physics lab and Chemistry lab in alternate weeks. The end exam shall be conducted separately and average of the two exams will be recorded by the University exam section.

# Students attend Engineering and IT work shop as a single lab every week and the end exam is conducted as a single lab. Sharing the Maximum marks and time for one task each from Engineering workshop and IT workshop. The sum of the marks awarded will be recorded

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**ELECTRICAL AND ELECTRONICS ENGINEERING (E.E.E.)**

**II Year B.Tech - I Semester**

Sl. No	Course code	Subject	Theor y	Lab.	Credits
1.	9ABS302	Mathematics III	4		4
2.	9ABS303	Environmental Science	4		4
3.	9A01308	Fluid Mechanics and Hydraulic Machinery	4		4
4.	9A04301	Electronic Devices and circuits	4		4
5.	9A02305	Electrical Circuits	4		4
6.	9A02308	Electrical Machines -I	4		4
7.	9A01309	Basic Fluid Mechanics and Hydraulic machines lab		3	2
8.	9A04302	Electronic Devices & circuits lab		3	2
		contact periods/week	24	6	
			Total/Week	30	
Total Credits (6 Theory + 2 Labs)					28

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**II Year B.Tech - II Semester**

Sl. No	Course code	Subject	Theory		Lab.	Credits
1.	9A02404	Electromagnetic Fields	4			4
2.	9A02403	Generation of Electric Power	4			4
3.	9A02405	Analog Electronic Circuits	4			4
4.	9A04401	Switching theory and logic design	4			4
5.	9A02406	Network Theory	4			4
6.	9A02407	Electrical Machines –II	4			4
7.	9A02408	Electrical Machines Lab -I			3	2
8.	9A02409	Electric circuits and simulation lab			3	2
		contact periods/week	24		6	
			Total/Week		30	
Total Credits (6 Theory + 2 Labs)						28

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**III Year B.Tech I-Sem**

Sl. No	Course Code	Subject	L	P	Credits
1.	9AHS401	Managerial Economics and Financial Analysis	4		4
2.	9A02501	Electrical & Electronic Measurements	4		4
3.	9A02502	Transmission of Electric Power	4		4
4.	9A02503	Control Systems	4		4
5.	9A02504	Power Electronics	4		4
6.	9A02505	Electrical Machines – III	4		4
7.	9A02506	Electrical Machines Lab – II		3	2
8.	9A02507	Control Systems and Simulation Lab		3	2
		contact period / week	24	6	
			Total/Week 30		
Total Credits (6 Theory + 2 Labs)					28

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**III Year B.Tech II-Sem**

Sl. No	Course Code	Subject	L	P	Credits
1.	9AHS701	Management Science	4		4
2.	9A02601	Power Semiconductor Drives	4		4
3.	9A02602	Power System Analysis	4		4
4.	9A04602	Microprocessors and Microcontrollers	4		4
5.	9A02603	Power System Operation and Control	4		4
6.	9A10504	Linear & Digital IC Applications	4		4
7.	9AHS601	Advanced English Communication Skills Lab		3	2
8.	9A02604	Electrical Measurements Lab		3	2
		contact period / week	24	6	
Total/Week 30					
Total Credits (6 Theory + 2 Labs)					28

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**IV Year B.Tech I-Sem**

Sl. No	Course Code	Subject	L	P	Credits
1.	9A02701	Distribution of Electric Power	4		4
2.	9A04603	Digital Signal Processing	4		4
3.	9A02702	Fundamentals of HVDC & FACTS Devices	4		4
4.	9A02703	Switch Gear and Protection	4		4
5.	9A02704 9A02705 9A02706	<b>ELECTIVE - I</b> 1. Instrumentation 2. High Voltage Engineering 3. Renewable Energy Sources	4		4
6.	9A02707 9A02708 9A02709	<b>ELECTIVE - II</b> 1. Soft Computing Techniques 2. Reliability Engineering and Applications to Power Systems 3. Optimization Techniques	4		4
7.	9A02710	Microprocessors and microcontrollers lab		3	2
8.	9A02711	Power Electronics and Simulation Lab		3	2
		Contact period / week	24	6	
			Total/Week 30		
Total Credits (6 Theory + 2 Labs)					28

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**IV Year B.Tech II-Sem**

Sl.No	Course Code	Subject	L	P	Credits
1.	9A02801	Principles of Power Quality	4		4
2.	9A02802	Utilization Of Electrical Energy	4		4
3.	9A02803 9A02804 9A02805	<b>ELECTIVE – III</b> 1. Modern Control Theory 2. Special Electrical Machines 3.Plc & Dcs - Its Applications	4		4
4.	9A02806 9A02807 9A02808	<b>ELECTIVE – IV</b> 1. Embedded Systems 2. Design of Electrical Systems 3. Energy Auditing & Demand Side Management	4		4
5.	9A02809	Seminar			2
6.	9A02810	Project			10
		contact period / week	16		
			Total/Week 16		
Total Credits (4 Theory + Seminar + Project work)					28