



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
Course Structure for B. Tech (Electrical and Electronics Engineering)
(2015-16)

II B. Tech (EEE) – I Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54301	Mathematics –III	3	1	-	3
2	15A02301	Electrical Circuits – II	3	1	-	3
3	15A02302	Electrical Machines – I	3	1	-	3
4	15A02303	Control Systems Engineering	3	1	-	3
5	15A04301	Electronic Devices & Circuits	3	1	-	3
6	15A05201	Data Structures	3	1	-	3
7	15A02305	Electric Circuits Simulation Laboratory	-		4	2
8	15A04305	Electronic Devices & Circuits Laboratory	-		4	2
		Total	18	6	8	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for B. Tech (Electrical and Electronics Engineering)

(2015-16)

II B. Tech (EEE) – II Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54402	Mathematics – IV	3	1	-	3
2	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
3	15A02401	Electrical Machines – II	3	1	-	3
4	15A02402	Electrical Power Generating Systems	3	1	-	3
5	15A02403	Electromagnetic Fields	3	1	-	3
6	15A04409	Analog Electronic Circuits	3	1	-	3
7	15A02404	Electrical Machines Laboratory – I	-	-	4	2
8	15A02405	Control Systems & Simulation Laboratory	-	-	4	2
9	15A02406	Comprehensive Online Examination – I	-	-	-	1
		Total	18	6	8	23

B.Tech. III - I Semester

S.No.	Course code	Subject	Theory	Tu / Lab		Credits
1.	13A52501	Managerial Economics and Financial Analysis	3	1	-	3
2.	13A02501	Electrical & Electronic Measuring Instruments	3	1	-	3
3.	13A04508	Linear & Digital IC Applications	3	1	-	3
4.	13A02502	Electrical Power Transmission Systems	3	1	-	3
5.	13A02503	Power Electronics	3	1	-	3
6.	13A02504	Electrical Machines – III	3	1	-	3
7.	13A02505	Electrical Machines Lab – II	-	-	3	2
8.	13A02506	Control Systems and Simulation Lab	-	-	3	2
9.	13A52301	Human Values & Professional Ethics (Audit course)	2	-	-	-
Total Credits						22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

(Established by Govt. of A.P., Act. No. 30 of 2008)

ANANTHAPURAMU – 515 002 (A.P) INDIA

Revised Course Structure for B.Tech.- R13 Regulations

ELECTRICAL AND ELECTRONICS ENGINEERING

III - II Semester

S.No	Course code	Subject	Theory	Tu	Lab	Credits
1	13A02601	Power Semiconductor Drives	3	1	-	3
2	13A02602	Power System Protection	3	1	-	3
3	13A04601	Microprocessors and Microcontrollers	3	1	-	3
4	13A02603	Power System Operation and Control	3	1	-	3
5	13A02604	Power System Analysis	3	1	-	3
6		Choice Based Credit Courses				
	13A02605	1. Neural Networks & Fuzzy Logic	3	1	-	3
	13A02606	2. Programmable Logic Controller & Its Applications.				
	13A02607	3. Optimization Techniques				
7	13A02608	Power Systems and Simulation Lab	-	-	4	2
8	13A02609	Electrical Measurements Lab	-	-	4	2
	13A52502	Advanced English Communication Skills Lab (Audit course)			3	
9	13A02610	Comprehensive Online Examination-II	-	-	-	1
Total			18	6	11	23


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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for Electrical and Electronics Engineering

B. Tech Course (2013-14)

IV B. Tech – I Sem

S.No.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A02701	Electrical Distribution Systems	3	1	-	3
2	13A04602	Digital Signal Processing	3	1	-	3
3	13A52702	Management Science	3	1	-	3
4	13A02702	Utilization of Electrical Energy	3	1	-	3
5	13A02703 13A02704 13A02705	CBCC-2 (Department) 1. Modern Control Theory 2. Switched Mode Power Converters 3. Energy Auditing & Demand Side Management	3	1	-	3
6	13A02706 13A02707 13A02708	CBCC -3 (Department) 1. Smart Grid 2. Flexible AC Transmission Systems 3. Power Quality	3	1	-	3
7	13A02709	Microprocessors and Microcontrollers Laboratory	-	-	4	2
8	13A02710	Power Electronics and Simulation Laboratory	-	-	4	2
Total			18	06	08	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for Electrical and Electronics Engineering

B. Tech Course (2013-14)

IV B. Tech – II Sem

S.N o.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A02801 13A02802	MOOC – I* (i) Instrumentation (ii) Power System dynamics and control	3	1	-	3
2	13A02803 13A02804	MOOC – II* (i) HVDC Transmission (ii) Energy Resources & Technology	3	1	-	3
3	13A04703 13A02805	MOOC – III* (i) Embedded Systems (ii) Industrial Automation & Control	3	1	-	3
4	13A02806	Technical Seminar	-	-	4	2
5	13A02807	Project Work	-	-	24	12
		Total	9	03	28	23

3 Theory + 1 Technical Seminar + 1 Project work

***Either by MOOCS manner or Self study or Conventional manner**

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

Course Structure for B.Tech-R15 Regulations

Mechanical Engineering

B.Tech I – I Semester (ME)

S.No	Course code	Subject	L	T	P	C
1.	15A52101	Functional English	3	1	-	3
2.	15A54101	Mathematics – I	3	1	-	3
3.	15A05101	Computer Programming	3	1	-	3
4.	15A51101	Engineering Chemistry	3	1	-	3
5.	15A01101	Environmental Studies	3	1	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	4	2
8.	15A05102	Computer Programming Lab	-	-	4	2
Total			15	5	12	21

I-II Semester

S.No	Course code	Subject	L	T	P	Drg	C
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A03201	Material Science and Engineering	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	-	6	3
6.	15A03202	Material Science and Engineering Lab	-	-	4	-	2
7.	15A56102	Engineering Physics Lab	-	-	4	-	2
8.	15A99201	Engineering & IT Workshop	-	-	4	-	2
Total			12	4	12	6	21

- *L - Lecture hours
- *T - Tutorial hours
- *P - Practical hours
- *Drg - Drawing
- *C - Credits

II B. Tech – I Sem

S.N o.	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics - III	3	1	-	3
2	15A52301	Managerial Economics & Financial Analysis	3	1	-	3
3	15A01308	Mechanics of Solids	3	1	-	3
4	15A03301	Engineering Drawing for Mechanical Engineers	3	1	-	3
5	15A03302	Engineering Mechanics	3	1	-	3
6	15A03303	Thermodynamics	3	1	-	3
7	15A01309	Mechanics of Solids Lab	-	-	4	2
8	15A03304	Computer Aided Drafting Lab	-	-	4	2
Total			18	06	08	22

II B. Tech – II Sem

S.No.	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
3	15A03401	Machine Drawing	3	1	-	3
4	15A03402	Kinematics of Machines	3	1	-	3
5	15A03403	Thermal Engineering – 1	3	1	-	3
6	15A03404	Manufacturing Technology	3	1	-	3
7	15A03405	Thermal Engineering Laboratory	-	-	4	2
8	15A03406	Manufacturing Technology Laboratory	-	-	4	2
9	15A03407	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23



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

Course Structure & Syllabus for B.Tech. (Regular)

R13 Regulations

MECHANICAL ENGINEERING

B.Tech. III - I Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A03501	Hydraulic Machinery	3	1 -	3
2.	13A03502	Thermal Engineering - II	3	1 -	3
3.	13A03503	Dynamics of Machinery	3	1 -	3
4.	13A03504	Metal Forming Processes	3	1 -	3
5.	13A03505	Design of Machine Members - I	3	1 -	3
6.	13A03506	Heat Transfer	3	1 -	3
7.	13A03507	Heat Transfer Lab	-	- 3	2
8.	13A01509	Fluid Mechanics & Hydraulic Machinery Lab	-	- 3	2
Total Credits					22

B.Tech. III - II Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A52501	Managerial Economics & Financial Analysis	3	1 -	3
2.	13A03601	CAD/CAM	3	1 -	3
3.	13A03602	Machine Tools	3	1 -	3
4.	13A03603	Refrigeration & Air Conditioning	3	1 -	3
5.	13A03604	Design of Machine Members - II	3	1 -	3
6.	13A03605	Automobile Engineering	3	1 -	3
7.	13A03606	CAD Lab	-	- 3	2
8.	13A03607	Machine Tools Lab	-	- 3	2
9.	13A52502	Advanced English language Comm. skills Lab(Audit course)	2	- -	-
Total Credits					22

B.Tech. IV - I Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A03701	Operations Research	3	1 -	3
2.	13A03702	Automation & Robotics	3	1 -	3
3.	13A03703	Finite Element Methods	3	1 -	3
4.	13A03704	Metrology & Measurements	3	1 -	3
5.		ELECTIVE – I (Open Elective)	3	1 -	3
6.	13A03705 13A03706 13A03707 13A03708	ELECTIVE – II Computational Fluid Dynamics Mechatronics Concurrent Engineering Production & Operations Management	3	1 -	3
7.	13A03709	Metrology & Measurements Lab	-	- 3	2
8.	13A03710	Computer Aided Engineering Lab	-	- 3	2
Total Credits					22

B.Tech. IV - II Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A03801	Industrial Engineering & Management	3	1 -	3
2.	13A03802	Power Plant Engineering	3	1 -	3
3.	13A03803 13A03804 13A03805 13A03806	ELECTIVE – III Gas Turbines & Jet Propulsion Tool Design Tribology Composite Materials	3	1 -	3
4.	13A03807 13A03808 13A03809 13A03810	ELECTIVE – IV Modern Manufacturing Methods Design of Heat Transfer Equipment Mechanical Vibrations Product Design	3	1 -	3
5.	13A03811	Seminar & Comprehensive Viva-Voce	-	- -	3
6.	13A03812	Project	-	- -	10
Total Credits					25

B.Tech. III - I Semester

S.No	Course code	Subject	Theory	Tu / Lab		Credits
1.	13A02402	Control Systems Engineering	3	1	-	3
2.	13A05401	Computer Organization & Architecture	3	1	-	3
3.	13A04501	Antennas & Wave Propagation	3	1	-	3
4.	13A04502	Digital Communication Systems	3	1	-	3
5.	13A04503	Linear IC Applications	3	1	-	3
6.	13A04504	Digital IC Applications	3	1	-	3
7.	13A04505	IC Applications Lab	-	-	3	2
8.	13A04506	Analog Communication Systems Lab	-	-	3	2
Total Credits						22

B.Tech. III - II Semester

S.No	Course code	Subject	Theory	Tu / Lab		Credits
1.	13A52501	Managerial Economics & Financial Analysis	3	1	-	3
2.	13A04601	Microprocessors & Microcontrollers	3	1	-	3
3.	13A04602	Digital Signal Processing	3	1	-	3
4.	13A04603	Microwave Engineering	4	1	-	4
5.	13A04604	Electronic Measurements & Instrumentation	3	1	-	3
6.	13A04605	Microprocessors & Microcontrollers Lab	3	1	-	2
7.	13A04606	Digital Signal Processing Lab	-	-	3	2
8.	13A04607	Digital Communication Systems Lab	-	-	3	2
9.	13A52502	Advanced English Language Comm. skills Lab(Audit course)	-	-	3	-
Total Credits						22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure Electronics and Communication Engineering

B. Tech Course (2013-14)

IV B. Tech – I Sem

S.No.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A52702	Management Science	3	1	-	3
2	13A04701	VLSI Design	3	1	-	3
3	13A04702	Optical Fiber Communication	3	1	-	3
4	13A04703	Embedded Systems	3	1	-	3
5	13A04704 13A02605 13A04705	Theory-V (CBCC) -2 a. Digital Image Processing b. Neural Networks & Fuzzy Logic c. Spread Spectrum Techniques	3	1	-	3
6	13A04706 13A04707 13A04708	Theory-VI (CBCC) - 3 a. Wireless Communication b. Operating Systems c. Satellite communication	3	1	-	3
7	13A04709	VLSI & Embedded Systems Laboratory	-	-	4	2
8	13A04710	Microwave & Optical Communications Laboratory	-	-	4	2
Total			18	06	08	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure Electronics and Communication Engineering

B. Tech Course (2013-14)

IV B. Tech – II Sem

S.N o.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A04801 13A04802	MOOC-I* a. Adaptive Signal Processing b. Advanced 3G & 4G wireless Communications	3	1	-	3
2	13A04803 13A04804	MOOC-II* a. Advanced Digital Signal Processing- Multirate & Wavelet b. RF integrated Circuits	3	1	-	3
3	13A04805 13A04806	MOOC-III* a. Pattern Recognition & Application b. Linux Programming & Scripting	3	1	-	3
4	13A04807	Technical Seminar	-	-	4	2
5	13A04808	Project Work	-	-	24	12
		Total	09	03	28	23

3 Theory + 1 Technical Seminar + 1 Project work

***Either by MOOCS manner or Self study or Conventional manner**

R15

II B. Tech – I sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics-III	3	1	-	3
2	15A04301	Electronic Devices and Circuits	3	1	-	3
3	15A04302	Switching Theory and Logic Design	3	1	-	3
4	15A04303	Signals and Systems	3	1	-	3
5	15A04304	Probability Theory and Stochastic Processes	3	1	-	3
6	15A02306	Electrical Technology	3	1	-	3
7	15A04305	Electronic Devices and Circuits Laboratory	-	-	4	2
8	15A02307	Electrical Technology and Basic Simulation Laboratory	-	-	4	2
Total			18	06	08	22

II B. Tech – II sem

S. No	Course Code	Subject	L	T	P	C
1	15A54402	Mathematics-IV	3	1	-	3
2	15A04401	Electronic Circuit Analysis	3	1	-	3
3	15A04402	Analog Communication Systems	3	1	-	3
4	15A04403	Electromagnetic Theory and Transmission Lines	3	1	-	3
5	15A05201	Data Structures	3	1	-	3
6	15A02303	Control Systems Engineering	3	1	-	3
7	15A04404	Electronic Circuit Analysis Laboratory	-	-	4	2
8	15A04405	Analog Communication Systems Laboratory	-	-	4	2
9	15A04406	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23



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(Established by Govt. of A.P., Act. No. 30 of 2008)
ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations
Common to CSE/EEE/CE

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Drg / Lab	Credits
1.	15A52101	Functional English	3	1 - -	3
2.	15A54101	Mathematics – I	3	1 - -	3
3.	15A05101	Computer Programming	3	1 - -	3
4.	15A56101	Engineering Physics	3	1 - -	3
5.	15A03101	Engineering Drawing	0	- 6 -	3
6.	15A52102	English Language Communication Skills Lab	-	- - 4	2
7.	15A56102	Engineering Physics Lab	-	- - 4	2
8.	15A05102	Computer Programming Lab	-	- - 4	2
					21

For the subject Engineering Drawing, day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2hrs each for 15 marks with weightage of 80% to better mid marks and 20% for the other. The subjective paper shall contain 5 questions of equal weightage of 10 marks and the marks obtained for 3 questions shall be condensed to 15 marks, any fraction shall be rounded off to the next higher mark. There shall be no objective paper in internal examination. The sum of day to day evaluation and the internal test marks will be the final sessional marks for the subject.

In the end examination pattern for Engineering Drawing there shall be 5 questions, either-or type, of 14 marks each. There shall be no objective type questions in the end examination.



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Course Structure for B.Tech. - R15 Regulations

COMPUTER SCIENCE & ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab	Credits
1.	15A52201	English for Professional Communication	3	1 - -	3
2.	15A54201	Mathematics – II	3	1 - -	3
3.	15A05201	Data Structures	3	1 - -	3
4.	15A51101	Engineering Chemistry	3	1 - -	3
5.	15A01101	Environmental Studies	3	1 -	3
6.	15A05202	Data Structures Lab	-	- - 4	2
7.	15A51102	Engineering Chemistry Lab	-	- - 4	2
8.	15A99201	Engineering & IT Workshop	-	- - 4	2
			15	5 12	21

II B. Tech – I Sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics III	3	1	-	3
2	15A05301	Database Management Systems	3	1	-	3
3	15A05302	Discrete Mathematics	3	1	-	3
4	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
5	15A04306	Digital Logic Design	3	1	-	3
6	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
7	15A05303	Database Management Systems Laboratory	-	-	4	2
8	15A99302	Basic Electrical and Electronics Laboratory	-	-	4	2
		Total	18	06	08	22

II B. Tech – II Sem

S. N o	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A05401	Software Engineering	3	1	-	3
3	15A05402	Computer Organization	3	1	-	3
4	15A04407	Microprocessors & Interfacing	3	1	-	3
5	15A05403	Object Oriented Programming using Java	3	1	-	3
6	15A05404	Formal Languages and Automata Theory	3	1	-	3
7	15A04408	Microprocessors & Interfacing Laboratory	-	-	4	2
8	15A05405	Java Programming Laboratory	-	-	4	2
9	15A05406	Comprehensive Online Examination-I	-	-	-	1
		Total	18	06	08	23

B.Tech. III - I Semester

S.No	Course code	Subject	Theory	Tu / Lab		Credits
1.	13A05501	Operating Systems	3	1	-	3
2.	13A05502	Compiler Design	3	1	-	3
3.	13A05503	Unix and Shell Programming	3	1	-	3
4.	13A05504	Software Engineering	3	1	-	3
5.	13A04507	Micro Processors & Interfacing	3	1	-	3
6.	13A52501	Managerial Economics and Financial Analysis	3	1	-	3
7.	13A05505	Operating Systems Lab	-	-	3	2
8.	13A05506	Compiler Design and Assembly Language Programming Lab	-	-	3	2
9.	13A52502	Advanced English language Comm. Skills Lab (Audit Course)	-	-	3	
Total Credits						22

B.Tech. III - II Semester

S.No	Course code	Subject	Theory	Tu / Lab		Credits
1.	13A05601	Computer Networks	3	1	-	3
2.	13A05602	Object Oriented Analysis, Design & Modeling	3	1	-	3
3.	13A05603	Data Mining	3	1	-	3
4.	13A05604	Web Programming	3	1	-	3
5.	13A05605	Software Testing Methodologies	3	1	-	3
6.	13A05606	Advanced Computer Architecture	3	1	-	3
7.	13A05607	Unified Modeling Language and Data Mining Lab	-	-	3	2
8.	13A05608	Web Programming Lab	-	-	3	2
Total Credits						22



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Revised Course Structure for B.Tech.- R13 Regulations

COMPUTER SCIENCE & ENGINEERING

III - II Semester

S.No	Course code	Subject	Theory	Tu / Lab		Credits
1.	13A05601	Computer Networks	3	1	-	3
2.	13A05602	Object Oriented Analysis, Design & Modeling	3	1	-	3
3.	13A05603	Data Mining	3	1	-	3
4.	13A05604	Web Technologies	3	1	-	3
5.	13A05605	Software Testing Methodologies	3	1	-	3
		Choice Based Credit Courses	3	1	-	3
6.	13A05606	1. Big Data Technologies				
	13A05607	2. Cloud Computing				
	13A05608	3. Linux Administration & Programming				
7.	13A05609	Unified Modeling Language and Testing Lab	-	-	3	2
8.	13A05610	Web Technologies & Data Mining Lab	-	-	3	2
9.	13A05611	Comprehensive Online Examination-II	-	-	-	1
		Total	18	6	9	23


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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for Computer Science and Engineering B. Tech Course (2013-14)

IV - I Semester

S.No	Course code	Subject	Theory	T	P	Credits
1.	13A05701	Software Architecture & Design Patterns	3	1	-	3
2.	13A05702	Cryptography & Network Security	3	1	-	3
3.	13A05703	Mobile Application Development	3	1	-	3
4.	13A52702	Management Science	3	1	-	3
5.	13A05704 13A05705 13A05706	Choice Based Credit Courses (Department specific) 1. Human Computer Interaction 2. Computer Graphics & Multimedia 3. Soft Computing	3	1	-	3
6.	13A05707 13A05708 13A05709	Choice Based Credit Courses (Department specific) 1. Artificial Intelligence 2. Information Retrieval Systems 3. Advanced Computer Architecture	3	1	-	3
7.	13A05710	Computer Networks and Network Security Laboratory	-		4	2
8.	13A05711	Mobile Application Development Laboratory	-		4	2
Total			18	06	08	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for Computer Science and Engineering B. Tech Course (2013-14)

IV - II Semester

S.No	Course code	Subject	Theory	Tu	Lab	Credits
1.	13A05801 13A05802	MOOC 1 1. Mobile Computing 2. Natural Language Processing	3	1	-	3
2.	13A05803 13A05804	MOOC 2 1. Parallel Algorithms 2. Real Time Systems	3	1	-	3
3.	13A05805 13A05806	MOOC 3 1. High Performance Computing 2. Python Programming	3	1	-	3
4.	13A05807	Technical Seminar	-	-	4	2
5.	13A05808	Project work	-	-	24	12
Total			09	03	28	23

3 Theory + 1 Technical Seminar + 1 Project work

***Either by MOOCS manner or Self study or Conventional manner**



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

Course Structure for B.Tech. - R15 Regulations
Common to CSE/EEE/CE

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Drg / Lab			Credits
1.	15A52101	Functional English	3	1	-	-	3
2.	15A54101	Mathematics – I	3	1	-	-	3
3.	15A05101	Computer Programming	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	0	-	6	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A05102	Computer Programming Lab	-	-	-	4	2
							21

For the subject Engineering Drawing, day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2hrs each for 15 marks with weightage of 80% to better mid marks and 20% for the other. The subjective paper shall contain 5 questions of equal weightage of 10 marks and the marks obtained for 3 questions shall be condensed to 15 marks, any fraction shall be rounded off to the next higher mark. There shall be no objective paper in internal examination. The sum of day to day evaluation and the internal test marks will be the final sessional marks for the subject.

In the end examination pattern for Engineering Drawing there shall be 5 questions, either-or type, of 14 marks each. There shall be no objective type questions in the end examination.



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Course Structure for B.Tech. - R15 Regulations
Common to ECE/ME/EIE/IT

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Lab		Credits
1.	15A52101	Functional English	3	1	-	3
2.	15A54101	Mathematics – I	3	1	-	3
3.	15A05101	Computer Programming	3	1	-	3
4.	15A51101	Engineering Chemistry	3	1	-	3
5.	15A01101	Environmental Studies	3	1	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	-	2
7.	15A51102	Engineering Chemistry Lab	-	-	-	2
8.	15A05102	Computer Programming Lab	-	-	-	2
						21



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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations

MECHANICAL ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab.			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A03201	Material Science and Engineering	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	6	-	3
6.	15A03202	Material Science and Engineering Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			12	4	6	12	21



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Course Structure for B.Tech. - R15 Regulations

ELECTRICAL AND ELECTRONICS ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A54201	Mathematics – II	3	1	-	-	3
2.	15A52201	English for Professional Communication	3	1	-	-	3
3.	15A51101	Engineering Chemistry	3	1	-	-	3
4.	15A01101	Environmental Studies	3	1	-	-	3
5.	15A02201	Electrical Circuits – I	3	1	-	-	3
6.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
7.	15A02202	Electrical Circuits Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5		12	21



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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations

ELECTRONICS & COMMUNICATION ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A04201	Network Analysis	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	0	-	6	-	3
6.	15A04202	Network Analysis Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A99201	Engineering and IT Workshop	-	-	-	4	2
			12	4	6	12	21



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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations

COMPUTER SCIENCE & ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A05201	Data Structures	3	1	-	-	3
4.	15A51101	Engineering Chemistry	3	1	-	-	3
5.	15A01101	Environmental Studies	3	1	-	-	3
6.	15A05202	Data Structures Lab	-	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5	12	21	

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure and Detailed Syllabus (2014-15 onwards) Master of Business Administration

MBA Semester – I

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00101	Management & Organizational Behavior	4	-	4
2.	14E00102	Business Environment	4	-	4
3.	14E00103	Marketing Management	4	-	4
4.	14E00104	Financial Accounting for Managers	4	-	4
5.	14E00105	Business Statistics	4	-	4
6.	14E00106	Business Communication	2	-	2
7.	14E00107	Information Technology for Managers	2	-	2
8.	14E00108	Business Communication Lab	-	3	2
9.	14E00109	Information Technology for Managers Lab	-	3	2
		Contact Periods/Week	24	6	
		Total		30	28

MBA Semester – II

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00201	Human Resource Management	4	-	4
2.	14E00202	Managerial Economics	4	-	4
3.	14E00203	Business Research Methods	4	-	4
4.	14E00204	Financial Management	4	-	4
5.	14E00205	Operations Research	4	-	4
6.	14E00206	Operations Management	4	-	4
7.	14E00207	Management Information System	2	-	2
8.	14E00208	Management Information System Lab	-	3	2
9.	14E00209	Communication Lab	-	3	2
		Contact Periods/Week	26	6	
		Total		33	30

MBA Semester – III

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00301	Business Ethics and Corporate Governance	4	-	4
2.	14E00302	Legal Aspects of Business	4	-	4
3.	14E00303	Entrepreneurship Development	4	-	4
4.	14E00304 14E00305 14E00306 14E00307	Elective I Management Control System Product and Brand Management Human Resource planning e-Business	4	-	4
5.	14E00308 14E00309 14E00310 14E00311	Elective II Financial Institutions, Markets and Services Customer Relationship Management Training and Development Supply Chain Management	4	-	4
6.	14E00312 14E00313 14E00314 14E00315	Elective III Investment and Portfolio Management Sales and Distribution Management Performance Management Enterprise Resource Planning	4	-	4
7.	14E00316 14E00317 14E00318 14E00319	Elective IV Risk Management and Insurance Advertising and sales Promotion Management Knowledge Management Data warehousing and Mining	4	-	4
8.	14E00320	Business Simulation Lab	-	3	2
9.	14E00321	Human Values and Professional Ethics	2	-	
		Contact Periods/Week	30	3	
		Total		33	30

MBA Semester – IV

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00401	Strategic Management	4	-	4
2.	14E00402	Green Business Management	4	-	4
3.	14E00403 14E00404 14E00405 14E05406	Elective V Financial Derivatives Services Marketing Organization Development Data Communication and Network Analysis	4	-	4
4.	14E00407 14E00408 14E00409 14E00410	Elective VI International Financial Management International Marketing Global Human Resource Management Corporate Information Management	4	-	4
5.	14E00411	Seminar (Contemporary Issues on Business)	-	- 3	2
6.	14E05412	Project Work	-	- 12	10
		Contact Periods/Week	16	- 15	
		total		31	28

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY, ANANTAPUR

Course Structure and Syllabi for M.Tech.

VLSI SYSTEM DESIGN VLSI SYSTEMS AND VLSI

for affiliated Engineering Colleges 2009-10

I YEAR I SEMESTER

S. No	Course code	Subject	Theory	Lab.	Credits
1.	9D57101	VLSI Technology	4		4
2.	9D57102	Analog IC Design	4		4
3.	9D57103	Digital IC Design	4		4
4.	9D57104	Hardware Description Languages	4		4
5.	9D57105	Hardware Software Co-design	4		4
6.		ELECTIVE I	4		4
	9D57106a	a. Embedded system Concepts			
	9D57106b	b. System Modeling & Simulation			
	9D57106c	c. ASIC Design			
7.	9D57107	Digital IC Design Lab		3	2
		contact periods/week	24	3	
			Total 27		26

2009-10

I YEAR

II SEMESTER

S. No	Course code	Subject	Theory	Lab.	Credits
1.	9D55201	Testing & Testability			
2.	9D57202	Low Power VLSI Design	4		4
3.	9D57203	Algorithms for VLSI Design Automation	4		4
4.	9D55204	FPGA Architectures & Applications	4		4
5.	9D57205	Scripting Language for VLSI Design Automation	4		4
6.		ELECTIVE II	4		4
	9D57206a	a. Nano Electronics			
	9D57206b	b. Cryptography & Network Security			
	9D57206c	c. Real Time Operating Systems			
7.	9D57207	Mixed Signal Lab		3	2
		contact periods/week	24	3	
			Total 27		26

II YEAR

(III & IV Semesters)

S. No	Course code	Subject	credits
1	9D57401	Seminar	
2	9D57402	Project work	2
			16



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
Course Structure for B. Tech (Electrical and Electronics Engineering)
(2015-16)

II B. Tech (EEE) – I Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54301	Mathematics –III	3	1	-	3
2	15A02301	Electrical Circuits – II	3	1	-	3
3	15A02302	Electrical Machines – I	3	1	-	3
4	15A02303	Control Systems Engineering	3	1	-	3
5	15A04301	Electronic Devices & Circuits	3	1	-	3
6	15A05201	Data Structures	3	1	-	3
7	15A02305	Electric Circuits Simulation Laboratory	-		4	2
8	15A04305	Electronic Devices & Circuits Laboratory	-		4	2
		Total	18	6	8	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for B. Tech (Electrical and Electronics Engineering)

(2015-16)

II B. Tech (EEE) – II Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54402	Mathematics – IV	3	1	-	3
2	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
3	15A02401	Electrical Machines – II	3	1	-	3
4	15A02402	Electrical Power Generating Systems	3	1	-	3
5	15A02403	Electromagnetic Fields	3	1	-	3
6	15A04409	Analog Electronic Circuits	3	1	-	3
7	15A02404	Electrical Machines Laboratory – I	-	-	4	2
8	15A02405	Control Systems & Simulation Laboratory	-	-	4	2
9	15A02406	Comprehensive Online Examination – I	-	-	-	1
		Total	18	6	8	23

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ANANTHAPURAMU – 515 002 (A.P.) INDIA.

Course Structure for B.Tech-R15 Regulations

ELECTRICAL & ELECTRONICS ENGINEERING

B.Tech III-I Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02501	Electrical Measurements	3	1	-	3
2.	15A04509	Linear & Digital IC Applications	3	1	-	3
3.	15A02502	Electrical Power Transmission Systems	3	1	-	3
4.	15A02503	Power Electronics	3	1	-	3
5.	15A02504	Electrical Machines – III	3	1	-	3
6.	15A04510 15A02505	MOOCS -I Digital Circuits and Systems Networks Signals and Systems	3	1	-	3
7.	15A02506	Electrical Machines Laboratory – II	-	-	4	2
8.	15A02507	Electrical Measurements Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total:			20	6	10	22

B.Tech III-II Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A02601	Power Semiconductor Drives	3	1	-	3
3.	15A02602	Power System Protection	3	1	-	3
4.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
5.	15A02603	Power System Analysis	3	1	-	3
6.	15A02604 15A02605 15A02606 15A01608	CBCC -I 1) Neural Networks & Fuzzy Logic 2) Programmable Logic Controller & Its Applications 3) Optimization Techniques 4) Intellectual Property Rights	3	1	-	3
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-		4	2
8.	15A02607	Power Electronics & Simulation Laboratory	-		4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)	-		2	-
10.	15A02608	Comprehensive Online Examination - II	-	-	-	1
Total:			18	6	12	23



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for Electrical and Electronics Engineering

B. Tech Course (2013-14)

IV B. Tech – I Sem

S.No.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A02701	Electrical Distribution Systems	3	1	-	3
2	13A04602	Digital Signal Processing	3	1	-	3
3	13A52702	Management Science	3	1	-	3
4	13A02702	Utilization of Electrical Energy	3	1	-	3
5	13A02703 13A02704 13A02705	CBCC-2 (Department) 1. Modern Control Theory 2. Switched Mode Power Converters 3. Energy Auditing & Demand Side Management	3	1	-	3
6	13A02706 13A02707 13A02708	CBCC -3 (Department) 1. Smart Grid 2. Flexible AC Transmission Systems 3. Power Quality	3	1	-	3
7	13A02709	Microprocessors and Microcontrollers Laboratory	-	-	4	2
8	13A02710	Power Electronics and Simulation Laboratory	-	-	4	2
Total			18	06	08	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for Electrical and Electronics Engineering

B. Tech Course (2013-14)

IV B. Tech – II Sem

S.N o.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A02801 13A02802	MOOC – I* (i) Instrumentation (ii) Power System dynamics and control	3	1	-	3
2	13A02803 13A02804	MOOC – II* (i) HVDC Transmission (ii) Energy Resources & Technology	3	1	-	3
3	13A04703 13A02805	MOOC – III* (i) Embedded Systems (ii) Industrial Automation & Control	3	1	-	3
4	13A02806	Technical Seminar	-	-	4	2
5	13A02807	Project Work	-	-	24	12
		Total	9	03	28	23

3 Theory + 1 Technical Seminar + 1 Project work

***Either by MOOCS manner or Self study or Conventional manner**

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ANANTHAPURAMU – 515 002 (A.P.) INDIA.

Course Structure for B.Tech-R15 Regulations

Mechanical Engineering

B.Tech I – I Semester (ME)

S.No	Course code	Subject	L	T	P	C
1.	15A52101	Functional English	3	1	-	3
2.	15A54101	Mathematics – I	3	1	-	3
3.	15A05101	Computer Programming	3	1	-	3
4.	15A51101	Engineering Chemistry	3	1	-	3
5.	15A01101	Environmental Studies	3	1	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	4	2
8.	15A05102	Computer Programming Lab	-	-	4	2
Total			15	5	12	21

I-II Semester

S.No	Course code	Subject	L	T	P	Drg	C
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A03201	Material Science and Engineering	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	-	6	3
6.	15A03202	Material Science and Engineering Lab	-	-	4	-	2
7.	15A56102	Engineering Physics Lab	-	-	4	-	2
8.	15A99201	Engineering & IT Workshop	-	-	4	-	2
Total			12	4	12	6	21

- *L - Lecture hours
- *T - Tutorial hours
- *P - Practical hours
- *Drg - Drawing
- *C - Credits

II B. Tech – I Sem

S.N o.	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics - III	3	1	-	3
2	15A52301	Managerial Economics & Financial Analysis	3	1	-	3
3	15A01308	Mechanics of Solids	3	1	-	3
4	15A03301	Engineering Drawing for Mechanical Engineers	3	1	-	3
5	15A03302	Engineering Mechanics	3	1	-	3
6	15A03303	Thermodynamics	3	1	-	3
7	15A01309	Mechanics of Solids Lab	-	-	4	2
8	15A03304	Computer Aided Drafting Lab	-	-	4	2
Total			18	06	08	22

II B. Tech – II Sem

S.No.	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
3	15A03401	Machine Drawing	3	1	-	3
4	15A03402	Kinematics of Machines	3	1	-	3
5	15A03403	Thermal Engineering – 1	3	1	-	3
6	15A03404	Manufacturing Technology	3	1	-	3
7	15A03405	Thermal Engineering Laboratory	-	-	4	2
8	15A03406	Manufacturing Technology Laboratory	-	-	4	2
9	15A03407	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23

B.Tech III-I Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A01510	Fluid Mechanics and Hydraulic Machines	3	1	-	3
2.	15A03501	Thermal Engineering - II	3	1	-	3
3.	15A03502	Dynamics of Machinery	3	1	-	3
4.	15A03503	Machine Tools	3	1	-	3
5.	15A03504	Design of Machine Members - I	3	1	-	3
6.	15A03505 15A03506 15A03507	MOOCS -I a. Entrepreneurship b. Nano Technology c. Micro Electro Mechanical Systems	3	1	-	3
7.	15A01511	Fluid Mechanics and Hydraulic Machines Laboratory	-	-	4	2
8.	15A03508	Machine Tools Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	6	10	22

B.Tech III-II Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A03601	Operations Research	3	1	-	3
2.	15A03602	Design of Machine Members – II	3	1	-	3
3.	15A03603	Heat Transfer	3	1	-	3
4.	15A03604	Finite Element Method	3	1	-	3
5.	15A03605	Metal forming Process	3	1	-	3
6.	15A03606 15A03607 15A03608 15A01608	CBCC-I a. Non Conventional Source of Energy b. Total Quality Management c. Mechatronics d. Intellectual Property Rights	3	1	-	3
7.	15A03609	Heat Transfer Laboratory	-	-	4	2
8.	15A03610	Computer Aided Engineering Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)			2	-
10.	15A03611	Comprehensive Online Examination - II	-	-	-	1
Total			18	6	11	23



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Course Structure & Syllabus for B.Tech. (Regular)

R13 Regulations

MECHANICAL ENGINEERING

B.Tech. IV - I Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A03701	Operations Research	3	1 -	3
2.	13A03702	Automation & Robotics	3	1 -	3
3.	13A03703	Finite Element Methods	3	1 -	3
4.	13A03704	Metrology & Measurements	3	1 -	3
5.		ELECTIVE – I (Open Elective)	3	1 -	3
6.	13A03705 13A03706 13A03707 13A03708	ELECTIVE – II Computational Fluid Dynamics Mechatronics Concurrent Engineering Production & Operations Management	3	1 -	3
7.	13A03709	Metrology & Measurements Lab	-	- 3	2
8.	13A03710	Computer Aided Engineering Lab	-	- 3	2
Total Credits					22

B.Tech. IV - II Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	13A03801	Industrial Engineering & Management	3	1 -	3
2.	13A03802	Power Plant Engineering	3	1 -	3
3.	13A03803 13A03804 13A03805 13A03806	ELECTIVE – III Gas Turbines & Jet Propulsion Tool Design Tribology Composite Materials	3	1 -	3
4.	13A03807 13A03808 13A03809 13A03810	ELECTIVE – IV Modern Manufacturing Methods Design of Heat Transfer Equipment Mechanical Vibrations Product Design	3	1 -	3
5.	13A03811	Seminar & Comprehensive Viva-Voce	-	- -	3
6.	13A03812	Project	-	- -	10
Total Credits					25



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure Electronics and Communication Engineering

B. Tech Course (2013-14)

IV B. Tech – I Sem

S.No.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A52702	Management Science	3	1	-	3
2	13A04701	VLSI Design	3	1	-	3
3	13A04702	Optical Fiber Communication	3	1	-	3
4	13A04703	Embedded Systems	3	1	-	3
5	13A04704 13A02605 13A04705	Theory-V (CBCC) -2 a. Digital Image Processing b. Neural Networks & Fuzzy Logic c. Spread Spectrum Techniques	3	1	-	3
6	13A04706 13A04707 13A04708	Theory-VI (CBCC) - 3 a. Wireless Communication b. Operating Systems c. Satellite communication	3	1	-	3
7	13A04709	VLSI & Embedded Systems Laboratory	-	-	4	2
8	13A04710	Microwave & Optical Communications Laboratory	-	-	4	2
		Total	18	06	08	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure Electronics and Communication Engineering

B. Tech Course (2013-14)

IV B. Tech – II Sem

S.N o.	Course Code	Subject	Theory	Tu	Lab	Credits
1	13A04801 13A04802	MOOC-I* a. Adaptive Signal Processing b. Advanced 3G & 4G wireless Communications	3	1	-	3
2	13A04803 13A04804	MOOC-II* a. Advanced Digital Signal Processing- Multirate & Wavelet b. RF integrated Circuits	3	1	-	3
3	13A04805 13A04806	MOOC-III* a. Pattern Recognition & Application b. Linux Programming & Scripting	3	1	-	3
4	13A04807	Technical Seminar	-	-	4	2
5	13A04808	Project Work	-	-	24	12
		Total	09	03	28	23

3 Theory + 1 Technical Seminar + 1 Project work

***Either by MOOCS manner or Self study or Conventional manner**

R15**II B. Tech – I sem**

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics-III	3	1	-	3
2	15A04301	Electronic Devices and Circuits	3	1	-	3
3	15A04302	Switching Theory and Logic Design	3	1	-	3
4	15A04303	Signals and Systems	3	1	-	3
5	15A04304	Probability Theory and Stochastic Processes	3	1	-	3
6	15A02306	Electrical Technology	3	1	-	3
7	15A04305	Electronic Devices and Circuits Laboratory	-	-	4	2
8	15A02307	Electrical Technology and Basic Simulation Laboratory	-	-	4	2
Total			18	06	08	22

II B. Tech – II sem

S. No	Course Code	Subject	L	T	P	C
1	15A54402	Mathematics-IV	3	1	-	3
2	15A04401	Electronic Circuit Analysis	3	1	-	3
3	15A04402	Analog Communication Systems	3	1	-	3
4	15A04403	Electromagnetic Theory and Transmission Lines	3	1	-	3
5	15A05201	Data Structures	3	1	-	3
6	15A02303	Control Systems Engineering	3	1	-	3
7	15A04404	Electronic Circuit Analysis Laboratory	-	-	4	2
8	15A04405	Analog Communication Systems Laboratory	-	-	4	2
9	15A04406	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23

R15

B.Tech III-I Semester (ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04511	Computer Organization	3	1	-	3
2.	15A04501	Antennas and Wave Propagation	3	1	-	3
3.	15A04502	Digital Communication Systems	3	1	-	3
4.	15A04503	Linear Integrated Circuits and Applications	3	1	-	3
5.	15A04504	Digital System Design	3	1	-	3
6.		MOOCS-I	3	1	-	3
	15A04505	a. Linux Programming & Scripting				
	15A04506	b. MEMS & Microsystems				
7.	15A04507	IC Applications Laboratory	-	-	4	2
8.	15A04508	Digital Communication Systems Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	06	10	22

B.Tech III-II Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
2.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
3.	15A04602	Electronic Measurements and Instrumentation	3	1	-	3
4.	15A04603	Digital Signal Processing	3	1	-	3
5.	15A04604	VLSI Design	3	1	-	3
6.		CBCC-I	3	1	-	3
	15A04605	a. MATLAB Programming				
	15A04606	b. Industrial Electronics				
	15A02605	c. Neural Networks & Fuzzy Logic				
	15A01608	d. Intellectual Property Rights				
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A04608	Digital Signal Processing Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A04609	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	12	23



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations
Common to CSE/EEE/CE

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Drg / Lab	Credits
1.	15A52101	Functional English	3	1 - -	3
2.	15A54101	Mathematics – I	3	1 - -	3
3.	15A05101	Computer Programming	3	1 - -	3
4.	15A56101	Engineering Physics	3	1 - -	3
5.	15A03101	Engineering Drawing	0	- 6 -	3
6.	15A52102	English Language Communication Skills Lab	-	- - 4	2
7.	15A56102	Engineering Physics Lab	-	- - 4	2
8.	15A05102	Computer Programming Lab	-	- - 4	2
					21

For the subject Engineering Drawing, day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2hrs each for 15 marks with weightage of 80% to better mid marks and 20% for the other. The subjective paper shall contain 5 questions of equal weightage of 10 marks and the marks obtained for 3 questions shall be condensed to 15 marks, any fraction shall be rounded off to the next higher mark. There shall be no objective paper in internal examination. The sum of day to day evaluation and the internal test marks will be the final sessional marks for the subject.

In the end examination pattern for Engineering Drawing there shall be 5 questions, either-or type, of 14 marks each. There shall be no objective type questions in the end examination.



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Course Structure for B.Tech. - R15 Regulations

COMPUTER SCIENCE & ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A05201	Data Structures	3	1	-	-	3
4.	15A51101	Engineering Chemistry	3	1	-	-	3
5.	15A01101	Environmental Studies	3	1	-	-	3
6.	15A05202	Data Structures Lab	-	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5	12	21	

II B. Tech – I Sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics III	3	1	-	3
2	15A05301	Database Management Systems	3	1	-	3
3	15A05302	Discrete Mathematics	3	1	-	3
4	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
5	15A04306	Digital Logic Design	3	1	-	3
6	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
7	15A05303	Database Management Systems Laboratory	-	-	4	2
8	15A99302	Basic Electrical and Electronics Laboratory	-	-	4	2
		Total	18	06	08	22

II B. Tech – II Sem

S. No	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A05401	Software Engineering	3	1	-	3
3	15A05402	Computer Organization	3	1	-	3
4	15A04407	Microprocessors & Interfacing	3	1	-	3
5	15A05403	Object Oriented Programming using Java	3	1	-	3
6	15A05404	Formal Languages and Automata Theory	3	1	-	3
7	15A04408	Microprocessors & Interfacing Laboratory	-	-	4	2
8	15A05405	Java Programming Laboratory	-	-	4	2
9	15A05406	Comprehensive Online Examination-I	-	-	-	1
		Total	18	06	08	23

B.Tech III-I Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05501	Operating Systems	3	1	-	3
2.	15A05502	Computer Networks	3	1	-	3
3.	15A05503	Object Oriented Analysis and Design	3	1	-	3
4.	15A05504	Principles of Programming Languages	3	1	-	3
5.	15A05505	Software Testing	3	1	-	3
6.	15A05506 15A05507 15A05508	MOOCS-I a. Introduction to Big Data b. R Programming c. Introduction to Operations Management	3	1	-	3
7.	15A05509	Object Oriented Analysis and Design & Software Testing Laboratory	-	-	4	2
8.	15A05510	Operating Systems Laboratory	-	-	4	2
9.	15A99501	Social Values & Ethics (Audit Course)	2	-	2	-
Total			20	06	10	22

B.Tech III-II Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05601	Compiler Design	3	1	-	3
2.	15A05602	Data Warehousing & Mining	3	1	-	3
3.	15A05603	Design Patterns	3	1	-	3
4.	15A05604	Design and Analysis of Algorithms	3	1	-	3
5.	15A05605	Web and Internet Technologies	3	1	-	3
6.	15A05606 15A05607 15A05608 15A01608	CBCC-I a. Artificial Intelligence b. Linux Environment System c. System Applications & Product (SAP) d. Intellectual Property Rights	3	1	-	3
7.	15A05609	Web and Internet Technologies Laboratory	-	-	4	2
8.	15A05610	Data Warehousing & Mining Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills(AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A05611	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	10	23



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for Computer Science and Engineering B. Tech Course (2013-14)

IV - I Semester

S.No	Course code	Subject	Theory	T	P	Credits
1.	13A05701	Software Architecture & Design Patterns	3	1	-	3
2.	13A05702	Cryptography & Network Security	3	1	-	3
3.	13A05703	Mobile Application Development	3	1	-	3
4.	13A52702	Management Science	3	1	-	3
5.	13A05704 13A05705 13A05706	Choice Based Credit Courses (Department specific) 1. Human Computer Interaction 2. Computer Graphics & Multimedia 3. Soft Computing	3	1	-	3
6.	13A05707 13A05708 13A05709	Choice Based Credit Courses (Department specific) 1. Artificial Intelligence 2. Information Retrieval Systems 3. Advanced Computer Architecture	3	1	-	3
7.	13A05710	Computer Networks and Network Security Laboratory	-		4	2
8.	13A05711	Mobile Application Development Laboratory	-		4	2
Total			18	06	08	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

**Course Structure for Computer Science and Engineering
B. Tech Course (2013-14)**

IV - II Semester

S.No	Course code	Subject	Theory	Tu	Lab	Credits
1.	13A05801 13A05802	MOOC 1 1. Mobile Computing 2. Natural Language Processing	3	1	-	3
2.	13A05803 13A05804	MOOC 2 1. Parallel Algorithms 2. Real Time Systems	3	1	-	3
3.	13A05805 13A05806	MOOC 3 1. High Performance Computing 2. Python Programming	3	1	-	3
4.	13A05807	Technical Seminar	-	-	4	2
5.	13A05808	Project work	-	-	24	12
Total			09	03	28	23

3 Theory + 1 Technical Seminar + 1 Project work

***Either by MOOCS manner or Self study or Conventional manner**



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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations
Common to CSE/EEE/CE

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Drg / Lab			Credits
1.	15A52101	Functional English	3	1	-	-	3
2.	15A54101	Mathematics – I	3	1	-	-	3
3.	15A05101	Computer Programming	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	0	-	6	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A05102	Computer Programming Lab	-	-	-	4	2
							21

For the subject Engineering Drawing, day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2hrs each for 15 marks with weightage of 80% to better mid marks and 20% for the other. The subjective paper shall contain 5 questions of equal weightage of 10 marks and the marks obtained for 3 questions shall be condensed to 15 marks, any fraction shall be rounded off to the next higher mark. There shall be no objective paper in internal examination. The sum of day to day evaluation and the internal test marks will be the final sessional marks for the subject.

In the end examination pattern for Engineering Drawing there shall be 5 questions, either-or type, of 14 marks each. There shall be no objective type questions in the end examination.



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Course Structure for B.Tech. - R15 Regulations
Common to ECE/ME/EIE/IT

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Lab		Credits
1.	15A52101	Functional English	3	1	-	3
2.	15A54101	Mathematics – I	3	1	-	3
3.	15A05101	Computer Programming	3	1	-	3
4.	15A51101	Engineering Chemistry	3	1	-	3
5.	15A01101	Environmental Studies	3	1	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	-	2
7.	15A51102	Engineering Chemistry Lab	-	-	-	2
8.	15A05102	Computer Programming Lab	-	-	-	2
						21



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Course Structure for B.Tech. - R15 Regulations

MECHANICAL ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab.			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A03201	Material Science and Engineering	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	6	-	3
6.	15A03202	Material Science and Engineering Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			12	4	6	12	21



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Course Structure for B.Tech. - R15 Regulations

ELECTRICAL AND ELECTRONICS ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A54201	Mathematics – II	3	1	-	-	3
2.	15A52201	English for Professional Communication	3	1	-	-	3
3.	15A51101	Engineering Chemistry	3	1	-	-	3
4.	15A01101	Environmental Studies	3	1	-	-	3
5.	15A02201	Electrical Circuits – I	3	1	-	-	3
6.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
7.	15A02202	Electrical Circuits Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5		12	21



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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations

ELECTRONICS & COMMUNICATION ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A04201	Network Analysis	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	0	-	6	-	3
6.	15A04202	Network Analysis Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A99201	Engineering and IT Workshop	-	-	-	4	2
			12	4	6	12	21



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

Course Structure for B.Tech. - R15 Regulations

COMPUTER SCIENCE & ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A05201	Data Structures	3	1	-	-	3
4.	15A51101	Engineering Chemistry	3	1	-	-	3
5.	15A01101	Environmental Studies	3	1	-	-	3
6.	15A05202	Data Structures Lab	-	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5	12	21	

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure and Detailed Syllabus (2014-15 onwards) Master of Business Administration

MBA Semester – I

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00101	Management & Organizational Behavior	4	-	4
2.	14E00102	Business Environment	4	-	4
3.	14E00103	Marketing Management	4	-	4
4.	14E00104	Financial Accounting for Managers	4	-	4
5.	14E00105	Business Statistics	4	-	4
6.	14E00106	Business Communication	2	-	2
7.	14E00107	Information Technology for Managers	2	-	2
8.	14E00108	Business Communication Lab	-	3	2
9.	14E00109	Information Technology for Managers Lab	-	3	2
		Contact Periods/Week	24	6	
		Total		30	28

MBA Semester – II

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00201	Human Resource Management	4	-	4
2.	14E00202	Managerial Economics	4	-	4
3.	14E00203	Business Research Methods	4	-	4
4.	14E00204	Financial Management	4	-	4
5.	14E00205	Operations Research	4	-	4
6.	14E00206	Operations Management	4	-	4
7.	14E00207	Management Information System	2	-	2
8.	14E00208	Management Information System Lab	-	3	2
9.	14E00209	Communication Lab	-	3	2
		Contact Periods/Week	26	6	
		Total		33	30

MBA Semester – III

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00301	Business Ethics and Corporate Governance	4	-	4
2.	14E00302	Legal Aspects of Business	4	-	4
3.	14E00303	Entrepreneurship Development	4	-	4
4.	14E00304 14E00305 14E00306 14E00307	Elective I Management Control System Product and Brand Management Human Resource planning e-Business	4	-	4
5.	14E00308 14E00309 14E00310 14E00311	Elective II Financial Institutions, Markets and Services Customer Relationship Management Training and Development Supply Chain Management	4	-	4
6.	14E00312 14E00313 14E00314 14E00315	Elective III Investment and Portfolio Management Sales and Distribution Management Performance Management Enterprise Resource Planning	4	-	4
7.	14E00316 14E00317 14E00318 14E00319	Elective IV Risk Management and Insurance Advertising and sales Promotion Management Knowledge Management Data warehousing and Mining	4	-	4
8.	14E00320	Business Simulation Lab	-	3	2
9.	14E00321	Human Values and Professional Ethics	2	-	
		Contact Periods/Week	30	3	
		Total		33	30

MBA Semester – IV

S. No	Course code	Subject	Th	Lab/Study	Credits
1.	14E00401	Strategic Management	4	-	4
2.	14E00402	Green Business Management	4	-	4
3.	14E00403 14E00404 14E00405 14E05406	Elective V Financial Derivatives Services Marketing Organization Development Data Communication and Network Analysis	4	-	4
4.	14E00407 14E00408 14E00409 14E00410	Elective VI International Financial Management International Marketing Global Human Resource Management Corporate Information Management	4	-	4
5.	14E00411	Seminar (Contemporary Issues on Business)	-	- 3	2
6.	14E05412	Project Work	-	- 12	10
		Contact Periods/Week	16	- 15	
		total		31	28

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
ANANTHAPURAMU (A.P.)
COURSE STRUCTURE AND SYLLABUS
(For Affiliated Engineering Colleges w.e.f. 2017-18 Admitted Batch)

M.Tech-ECE-VLSI, VLSI SYSTEMS, VLSI SYSTEM DESIGN (VLSI, VLSIS, VLSISD)

M.Tech I Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D06101	Structural Digital System Design	4	-	-	4
2.	17D57101	Advanced MOSFET Modeling	4	-	-	4
3.	17D57102	CMOS Analog IC Design	4	-	-	4
4.	17D57103	CMOS Digital IC Design	4	-	-	4
5.		Elective-I	3	-	-	3
	17D57104	a. VLSI Signal Processing				
	17D06103	b. Advanced Computer Architecture				
	17D57105	c. CAD for VLSI				
6.		Elective-II	3	-	-	3
	17D06202	a. CPLD and FPGA Architectures and Applications				
	17D55206	b. ASIC Design				
	17D57106	c. Optimization Techniques in VLSI Design				
7.	17D38107	Structural Digital System Design Lab	-	-	3	2
8.	17D57107	VLSI System Design Lab - I	-	-	3	2
Total			22	-	06	26

M.Tech II Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D57201	Low Power VLSI Design	4	-	-	4
2.	17D57202	CMOS Mixed signal Design	4	-	-	4
3.	17D06201	Embedded System Design	4	-	-	4
4.	17D06109	Test and Testability	4	-	-	4
5.		Elective-III	3	-	-	3
	17D55201	a. System On Chip Architecture				
	17D57203	b. Semiconductor Memory Design and Testing				
	17D57204	c. RF IC Design				
6.		Elective-IV	3	-	-	3
	17D38202	a. Internet of Things				
	17D55204	b. Hardware and Software Co-design of Embedded System				
	17D57205	c. Physical Design Automation				
7.	17D38208	Embedded System Design Lab	-	-	3	2
8.	17D57206	VLSI System Design Lab - II	-	-	3	2
Total			22	-	06	26

M.Tech. II YEAR (III Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D20301 17D20302 17D20303	Elective – V (Open Elective) 1. Research Methodology 2. Human Values & Professional Ethics 3. Intellectual Property Rights	4	---	---	4
2.	17D57301	ELECTIVE – VI (MOOCs)	--	---	---	--
3.	17D57302	Comprehensive Viva Voce	--	---	---	2
4.	17D57303	Seminar	--	---	---	2
5.	17D57304	Teaching Assignment	--	---	---	2
6.	17D57305	Project Work Phase I	--	---	---	4
	Total		4			14

M.Tech. II YEAR (IV Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D57401	Project Work Phase II	--	---	---	12
	Total					12

Project Viva Voce Grades:**A: Satisfactory****B: Not Satisfactory**



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
Course Structure for B. Tech (Electrical and Electronics Engineering)
(2015-16)

II B. Tech (EEE) – I Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54301	Mathematics –III	3	1	-	3
2	15A02301	Electrical Circuits – II	3	1	-	3
3	15A02302	Electrical Machines – I	3	1	-	3
4	15A02303	Control Systems Engineering	3	1	-	3
5	15A04301	Electronic Devices & Circuits	3	1	-	3
6	15A05201	Data Structures	3	1	-	3
7	15A02305	Electric Circuits Simulation Laboratory	-		4	2
8	15A04305	Electronic Devices & Circuits Laboratory	-		4	2
		Total	18	6	8	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for B. Tech (Electrical and Electronics Engineering)

(2015-16)

II B. Tech (EEE) – II Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54402	Mathematics – IV	3	1	-	3
2	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
3	15A02401	Electrical Machines – II	3	1	-	3
4	15A02402	Electrical Power Generating Systems	3	1	-	3
5	15A02403	Electromagnetic Fields	3	1	-	3
6	15A04409	Analog Electronic Circuits	3	1	-	3
7	15A02404	Electrical Machines Laboratory – I	-	-	4	2
8	15A02405	Control Systems & Simulation Laboratory	-	-	4	2
9	15A02406	Comprehensive Online Examination – I	-	-	-	1
		Total	18	6	8	23

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

(Established by Govt. of A.P., Act. No. 30 of 2008)

ANANTHAPURAMU – 515 002 (A.P.) INDIA.

Course Structure for B.Tech-R15 Regulations

ELECTRICAL & ELECTRONICS ENGINEERING

B.Tech III-I Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02501	Electrical Measurements	3	1	-	3
2.	15A04509	Linear & Digital IC Applications	3	1	-	3
3.	15A02502	Electrical Power Transmission Systems	3	1	-	3
4.	15A02503	Power Electronics	3	1	-	3
5.	15A02504	Electrical Machines – III	3	1	-	3
6.		MOOCS -I	3	1	-	3
	15A04510	Digital Circuits and Systems				
	15A02505	Networks Signals and Systems				
7.	15A02506	Electrical Machines Laboratory – II	-	-	4	2
8.	15A02507	Electrical Measurements Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total:			20	6	10	22

B.Tech III-II Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A02601	Power Semiconductor Drives	3	1	-	3
3.	15A02602	Power System Protection	3	1	-	3
4.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
5.	15A02603	Power System Analysis	3	1	-	3
6.	15A02604 15A02605 15A02606 15A01608	CBCC -I 1) Neural Networks & Fuzzy Logic 2) Programmable Logic Controller & Its Applications 3) Optimization Techniques 4) Intellectual Property Rights	3	1	-	3
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A02607	Power Electronics & Simulation Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A02608	Comprehensive Online Examination - II	-	-	-	1
Total:			18	6	12	23

B.Tech IV-I Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02701	Electrical Distribution Systems	3	1	-	3
2.	15A04603	Digital Signal Processing	3	1	-	3
3.	15A02702	Power System Operation and Control	3	1	-	3
4.	15A02703	Utilization of Electrical Energy	3	1	-	3
5.	15A02704 15A02705 15A02706	CBCC-II a) Modern Control Theory b) Switched Mode Power Converters c) Energy Auditing & Demand Side Management	3	1	-	3
6.	15A02707	CBCC-III a) Smart Grid	3	1	-	3

	15A02708	b) Flexible AC Transmission Systems				
	15A02709	c) Power Quality				
7.	15A04608	Digital Signal Processing Laboratory	-		4	2
8.	15A02710	Power Systems & Simulation Laboratory	-		4	2
Total:			18	6	8	22

B.Tech IV-II Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02801 15A02802 15A02803	MOOCS – II 1. Instrumentation 2. Power System Dynamics and Control 3. Industrial Automation & Control	3	1	-	3
2.	15A02804 15A04702 15A02805	MOOCS – III 1. HVDC Transmission 2. Embedded Systems 3. Energy Resources & Technology	3	1	-	3
3.	15A02806	Comprehensive Viva Voce	-	-	4	2
4.	15A02807	Technical Seminar	-	-	4	2
5.	15A02808	Project Work	-		24	12
Total:			6	2	32	22

2 Theory + 1 Comprehensive Viva voce + 1 Technical Seminar + 1 Project work

*Either by MOOCS manner or Self study or Conventional manner

Minor Degree in EEE

S. No.	Course Code	Subject	L	T	P	C
III B. Tech – I Semester						
1	15A02303	Control Systems Engineering	3	1	-	3
III B. Tech – II Semester						
2	15A02402	Electrical Power Generating Systems	3	1	-	3
IV B. Tech –I Semester						
3	15A02502	Electrical Power Transmission Systems	3	1	-	3
IV B. Tech – II Semester						
4	15A02603	Power System Analysis	3	1	-	3
		Total	12	4	-	12

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ANANTHAPURAMU – 515 002 (A.P.) INDIA.

Course Structure for B.Tech-R15 Regulations

Mechanical Engineering

B.Tech I – I Semester (ME)

S.No	Course code	Subject	L	T	p	C
1.	15A52101	Functional English	3	1	-	3
2.	15A54101	Mathematics – I	3	1	-	3
3.	15A05101	Computer Programming	3	1	-	3
4.	15A51101	Engineering Chemistry	3	1	-	3
5.	15A01101	Environmental Studies	3	1	-	3
6.	15A52102	English Language Communication SkillsLab	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	4	2
8.	15A05102	Computer Programming Lab	-	-	4	2
Total			15	5	12	21

I-II Semester

S.No	Course code	Subject	L	T	P	Drg	C
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A03201	Material Science and Engineering	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	-	6	3
6.	15A03202	Material Science and Engineering Lab	-	-	4	-	2
7.	15A56102	Engineering Physics Lab	-	-	4	-	2
8.	15A99201	Engineering & IT Workshop	-	-	4	-	2
Total			12	4	12	6	21

- *L - Lecture hours
- *T - Tutorial hours
- *P - Practical hours
- *Drg - Drawing
- *C - Credits

II B. Tech – I Sem

S.No.	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics - III	3	1	-	3
2	15A52301	Managerial Economics & Financial Analysis	3	1	-	3
3	15A01308	Mechanics of Solids	3	1	-	3
4	15A03301	Engineering Drawing for Mechanical Engineers	3	1	-	3
5	15A03302	Engineering Mechanics	3	1	-	3
6	15A03303	Thermodynamics	3	1	-	3
7	15A01309	Mechanics of Solids Lab	-	-	4	2
8	15A03304	Computer Aided Drafting Lab	-	-	4	2
Total			18	06	08	22

II B. Tech – II Sem

S.No.	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
3	15A03401	Machine Drawing	3	1	-	3
4	15A03402	Kinematics of Machines	3	1	-	3
5	15A03403	Thermal Engineering – I	3	1	-	3
6	15A03404	Manufacturing Technology	3	1	-	3
7	15A03405	Thermal Engineering Laboratory	-	-	4	2
8	15A03406	Manufacturing Technology Laboratory	-	-	4	2
9	15A03407	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23

B.Tech III-I Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A01510	Fluid Mechanics and Hydraulic Machines	3	1	-	3
2.	15A03501	Thermal Engineering - II	3	1	-	3
3.	15A03502	Dynamics of Machinery	3	1	-	3
4.	15A03503	Machine Tools	3	1	-	3
5.	15A03504	Design of Machine Members - I	3	1	-	3
6.	15A03505 15A03506 15A03507	MOOCS -I a. Entrepreneurship b. Nano Technology c. Micro Electro Mechanical Systems	3	1	-	3
7.	15A01511	Fluid Mechanics and Hydraulic Machines Laboratory	-	-	4	2
8.	15A03508	Machine Tools Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	6	10	22

B.Tech III-II Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A03601	Operations Research	3	1	-	3
2.	15A03602	Design of Machine Members – II	3	1	-	3
3.	15A03603	Heat Transfer	3	1	-	3
4.	15A03604	Finite Element Method	3	1	-	3
5.	15A03605	Metal forming Process	3	1	-	3
6.	15A03606 15A03607 15A03608 15A01608	CBCC-I a. Non Conventional Source of Energy b. Total Quality Management c. Mechatronics d. Intellectual Property Rights	3	1	-	3
7.	15A03609	Heat Transfer Laboratory	-	-	4	2
8.	15A03610	Computer Aided Engineering Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)			2	-
10.	15A03611	Comprehensive Online Examination - II	-	-	-	1

Total	18	6	11	23
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B.Tech IV-I Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A03701	Automobile Engineering	3	1	-	3
3.	15A03702	CAD/CAM	3	1	-	3
4.	15A03703	Metrology and Measurements	3	1	-	3
5.	15A03704 15A03705 15A03706	CBCC-II a. Refrigeration and Air – Conditioning b. Tool Design c. Modern Manufacturing Methods	3	1	-	3
6.	15A03707 15A03708 15A03709	CBCC-III a. Computational Fluid Dynamics b. Automation and Robotics c. Production & Operations Management	3	1	-	3
7.	15A03710	CAD/ CAM Laboratory	-	-	4	2
8.	15A03711	Metrology and Measurements Laboratory	-	-	4	2
Total			18	6	8	22

B.Tech IV-II Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A03801 15A03802 15A03803	MOOCS-II a. Industrial Engineering b. Product Design c. Composite Materials	3	1	0	3
2.	15A03804 15A03805 15A03806	MOOCS -III a. Power Plant Engineering b. Gas Turbines and Jet Propulsion c. Energy Management	3	1	0	3
3.	15A03807	Comprehensive Viva Voce	0	0	4	2
4.	15A03808	Technical Seminar	0	0	4	2
5.	15A03809	Project work	0	0	24	12
Total			6	2	32	22

R15

II B. Tech – I sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics-III	3	1	-	3
2	15A04301	Electronic Devices and Circuits	3	1	-	3
3	15A04302	Switching Theory and Logic Design	3	1	-	3
4	15A04303	Signals and Systems	3	1	-	3
5	15A04304	Probability Theory and Stochastic Processes	3	1	-	3
6	15A02306	Electrical Technology	3	1	-	3
7	15A04305	Electronic Devices and Circuits Laboratory	-	-	4	2
8	15A02307	Electrical Technology and Basic Simulation Laboratory	-	-	4	2
Total			18	06	08	22

II B. Tech – II sem

S. No	Course Code	Subject	L	T	P	C
1	15A54402	Mathematics-IV	3	1	-	3
2	15A04401	Electronic Circuit Analysis	3	1	-	3
3	15A04402	Analog Communication Systems	3	1	-	3
4	15A04403	Electromagnetic Theory and Transmission Lines	3	1	-	3
5	15A05201	Data Structures	3	1	-	3
6	15A02303	Control Systems Engineering	3	1	-	3
7	15A04404	Electronic Circuit Analysis Laboratory	-	-	4	2
8	15A04405	Analog Communication Systems Laboratory	-	-	4	2
9	15A04406	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23

R15

B.Tech III-I Semester (ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04511	Computer Organization	3	1	-	3
2.	15A04501	Antennas and Wave Propagation	3	1	-	3
3.	15A04502	Digital Communication Systems	3	1	-	3
4.	15A04503	Linear Integrated Circuits and Applications	3	1	-	3
5.	15A04504	Digital System Design	3	1	-	3
6.		MOOCS-I	3	1	-	3
	15A04505	a. Linux Programming & Scripting				
	15A04506	b. MEMS & Microsystems				
7.	15A04507	IC Applications Laboratory	-	-	4	2
8.	15A04508	Digital Communication Systems Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	06	10	22

B.Tech III-II Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
2.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
3.	15A04602	Electronic Measurements and Instrumentation	3	1	-	3
4.	15A04603	Digital Signal Processing	3	1	-	3
5.	15A04604	VLSI Design	3	1	-	3
6.		CBCC-I	3	1	-	3
	15A04605	a. MATLAB Programming				
	15A04606	b. Industrial Electronics				
	15A02605	c. Neural Networks & Fuzzy Logic				
	15A01608	d. Intellectual Property Rights				
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A04608	Digital Signal Processing Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A04609	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	12	23

R15**B.Tech IV-I Semester(ECE)**

S. No.	Course Code	Subject	L	T	P	C
1.	15A04701	Optical Fiber Communication	3	1	-	3
2.	15A04702	Embedded Systems	3	1	-	3
3.	15A04703	Microwave Engineering	3	1	-	3
4.	15A04704	Data Communications and Networking	3	1	-	3
5.	15A04705 15A04706 15A04707	CBCC-II a. Radar Systems b. Adaptive Signal Processing c. FPGA Design	3	1	-	3
6.	15A04708 15A04709 15A04710	CBCC-III a. Digital Image Processing b. Cellular & Mobile Communication c. Real Time Systems	3	1	-	3
7.	15A04711	Microwave and Optical Communication Laboratory	-	-	4	2
8.	15A04712	VLSI & Embedded Systems Laboratory	-	-	4	2
Total			18	06	08	22

B.Tech IV-II Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04801 15A04802	MOOCS-II* a. Advanced Digital Signal Processing- Multirate & Wavelet b. Low Power VLSI Circuits & Systems	3	1	-	3
2.	15A04803 15A04804	MOOCS-III * a. Pattern Recognition & Applications b. RF Integrated Circuits	3	1	-	3
3.	15A04805	Comprehensive Viva Voce	-	-	4	2
4.	15A04806	Technical Seminar	-	-	4	2
5.	15A04807	Project Work	-	-	24	12
Total			6	02	32	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations
Common to CSE/EEE/CE

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Drg / Lab	Credits
1.	15A52101	Functional English	3	1 - -	3
2.	15A54101	Mathematics – I	3	1 - -	3
3.	15A05101	Computer Programming	3	1 - -	3
4.	15A56101	Engineering Physics	3	1 - -	3
5.	15A03101	Engineering Drawing	0	- 6 -	3
6.	15A52102	English Language Communication Skills Lab	-	- - 4	2
7.	15A56102	Engineering Physics Lab	-	- - 4	2
8.	15A05102	Computer Programming Lab	-	- - 4	2
					21

For the subject Engineering Drawing, day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2hrs each for 15 marks with weightage of 80% to better mid marks and 20% for the other. The subjective paper shall contain 5 questions of equal weightage of 10 marks and the marks obtained for 3 questions shall be condensed to 15 marks, any fraction shall be rounded off to the next higher mark. There shall be no objective paper in internal examination. The sum of day to day evaluation and the internal test marks will be the final sessional marks for the subject.

In the end examination pattern for Engineering Drawing there shall be 5 questions, either-or type, of 14 marks each. There shall be no objective type questions in the end examination.



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations

COMPUTER SCIENCE & ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A05201	Data Structures	3	1	-	-	3
4.	15A51101	Engineering Chemistry	3	1	-	-	3
5.	15A01101	Environmental Studies	3	1	-	-	3
6.	15A05202	Data Structures Lab	-	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5	12	21	

II B. Tech – I Sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics III	3	1	-	3
2	15A05301	Database Management Systems	3	1	-	3
3	15A05302	Discrete Mathematics	3	1	-	3
4	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
5	15A04306	Digital Logic Design	3	1	-	3
6	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
7	15A05303	Database Management Systems Laboratory	-	-	4	2
8	15A99302	Basic Electrical and Electronics Laboratory	-	-	4	2
		Total	18	06	08	22

II B. Tech – II Sem

S. N o	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A05401	Software Engineering	3	1	-	3
3	15A05402	Computer Organization	3	1	-	3
4	15A04407	Microprocessors & Interfacing	3	1	-	3
5	15A05403	Object Oriented Programming using Java	3	1	-	3
6	15A05404	Formal Languages and Automata Theory	3	1	-	3
7	15A04408	Microprocessors & Interfacing Laboratory	-	-	4	2
8	15A05405	Java Programming Laboratory	-	-	4	2
9	15A05406	Comprehensive Online Examination-I	-	-	-	1
		Total	18	06	08	23

B.Tech III-I Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05501	Operating Systems	3	1	-	3
2.	15A05502	Computer Networks	3	1	-	3
3.	15A05503	Object Oriented Analysis and Design	3	1	-	3
4.	15A05504	Principles of Programming Languages	3	1	-	3
5.	15A05505	Software Testing	3	1	-	3
6.	15A05506 15A05507 15A05508	MOOCS-I a. Introduction to Big Data b. R Programming c. Introduction to Operations Management	3	1	-	3
7.	15A05509	Object Oriented Analysis and Design & Software Testing Laboratory	-	-	4	2
8.	15A05510	Operating Systems Laboratory	-	-	4	2
9.	15A99501	Social Values & Ethics (Audit Course)	2	-	2	-
Total			20	06	10	22

B.Tech III-II Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05601	Compiler Design	3	1	-	3
2.	15A05602	Data Warehousing & Mining	3	1	-	3
3.	15A05603	Design Patterns	3	1	-	3
4.	15A05604	Design and Analysis of Algorithms	3	1	-	3
5.	15A05605	Web and Internet Technologies	3	1	-	3
6.	15A05606 15A05607 15A05608 15A01608	CBCC-I a. Artificial Intelligence b. Linux Environment System c. System Applications & Product (SAP) d. Intellectual Property Rights	3	1	-	3
7.	15A05609	Web and Internet Technologies Laboratory	-	-	4	2
8.	15A05610	Data Warehousing & Mining Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills(AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A05611	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	10	23

B.Tech IV-I Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A05701	Grid & Cloud Computing	3	1	-	3
3.	15A05702	Information Security	3	1	-	3
4.	15A05703	Mobile Application Development	3	1	-	3
5.	15A05704 15A05705 15A05706	CBCC-II a. Software Architecture b. Computer Graphics c. Machine Learning	3	1	-	3
6.	15A05707 15A05708 15A05709	CBCC-III a. Software Project Management b. Distributed Systems c. Real Time Systems	3	1	-	3
7.	15A05710	Grid & Cloud Computing Laboratory	-	-	4	2
8.	15A05711	Mobile Application Development Laboratory	-	-	4	2
Total			18	06	08	22

B.Tech IV-II Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05801 15A05802 15A05803	MOOCS-II a. Data Analytics b. Mobile Computing c. Innovations and IT Management	3	1	-	3
2.	15A05804 15A05805 15A05806	MOOCS-III a. Building Large Scale Software Systems b. Enabling Technologies for Data Science Analytics : IoT c. Cyber Security	3	1	-	3
3.	15A05807	Comprehensive Viva-Voce	-	-	4	2
4.	15A05808	Technical Seminar	-	-	4	2
5.	15A05809	Project Work	-	-	24	12
Total			6	2	32	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
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ANANTHAPURAMU – 515 002 (A.P) INDIA

Course Structure for B.Tech. - R15 Regulations
Common to CSE/EEE/CE

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Drg / Lab			Credits
1.	15A52101	Functional English	3	1	-	-	3
2.	15A54101	Mathematics – I	3	1	-	-	3
3.	15A05101	Computer Programming	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	0	-	6	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A05102	Computer Programming Lab	-	-	-	4	2
							21

For the subject Engineering Drawing, day-to-day work shall be evaluated for 15 marks by the concerned subject teacher based on the reports/submissions prepared in the class. And there shall be two midterm examinations in a semester for duration of 2hrs each for 15 marks with weightage of 80% to better mid marks and 20% for the other. The subjective paper shall contain 5 questions of equal weightage of 10 marks and the marks obtained for 3 questions shall be condensed to 15 marks, any fraction shall be rounded off to the next higher mark. There shall be no objective paper in internal examination. The sum of day to day evaluation and the internal test marks will be the final sessional marks for the subject.

In the end examination pattern for Engineering Drawing there shall be 5 questions, either-or type, of 14 marks each. There shall be no objective type questions in the end examination.



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Course Structure for B.Tech. - R15 Regulations
Common to ECE/ME/EIE/IT

I B.Tech. - I Semester

S.No	Course code	Subject	Theory	Tu / Lab	Credits
1.	15A52101	Functional English	3	1 -	3
2.	15A54101	Mathematics – I	3	1 -	3
3.	15A05101	Computer Programming	3	1 -	3
4.	15A51101	Engineering Chemistry	3	1 -	3
5.	15A01101	Environmental Studies	3	1 -	3
6.	15A52102	English Language Communication Skills Lab	-	- -	2
7.	15A51102	Engineering Chemistry Lab	-	- -	2
8.	15A05102	Computer Programming Lab	-	- -	2
					21



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Course Structure for B.Tech. - R15 Regulations

MECHANICAL ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab.			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A03201	Material Science and Engineering	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	6	-	3
6.	15A03202	Material Science and Engineering Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			12	4	6	12	21



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Course Structure for B.Tech. - R15 Regulations

ELECTRICAL AND ELECTRONICS ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A54201	Mathematics – II	3	1	-	-	3
2.	15A52201	English for Professional Communication	3	1	-	-	3
3.	15A51101	Engineering Chemistry	3	1	-	-	3
4.	15A01101	Environmental Studies	3	1	-	-	3
5.	15A02201	Electrical Circuits – I	3	1	-	-	3
6.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
7.	15A02202	Electrical Circuits Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5		12	21



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Course Structure for B.Tech. - R15 Regulations

ELECTRONICS & COMMUNICATION ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A04201	Network Analysis	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	0	-	6	-	3
6.	15A04202	Network Analysis Lab	-	-	-	4	2
7.	15A56102	Engineering Physics Lab	-	-	-	4	2
8.	15A99201	Engineering and IT Workshop	-	-	-	4	2
			12	4	6	12	21



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Course Structure for B.Tech. - R15 Regulations

COMPUTER SCIENCE & ENGINEERING

I-II Semester

S.No	Course code	Subject	Th	Tu/Drg/Lab			Credits
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A05201	Data Structures	3	1	-	-	3
4.	15A51101	Engineering Chemistry	3	1	-	-	3
5.	15A01101	Environmental Studies	3	1	-	-	3
6.	15A05202	Data Structures Lab	-	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	-	4	2
			15	5	12	21	

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure and Detailed Syllabi (2017-18 onwards)

Master of Business Administration

MBA Semester – I

S. No	Course code	Subject	L	T	P	C
1.	17E00101	Management & Organizational Behaviour	4	-	-	4
2.	17E00102	Business Environment & Law	4	-	-	4
3.	17E00103	Managerial Economics	4	-	-	4
4.	17E00104	Financial Accounting for Managers	4	-	-	4
5.	17E00105	Statistics for Managers	4	-	-	4
6.	17E00106	Management Information Systems	2	-	-	2
7.	17E00107	Information Technologie for Managers	2	-	-	2
8.	17E00108	Communication Lab	-	-	3	2
9.	17E00109	Data Analytics Lab	-	-	3	2
		Total	24	-	6	28

MBA Semester – II

S. No	Course code	Subject	L	T	P	Credits
1.	17E00201	Human Resource Management	4		-	4
2.	17E00202	Marketing Management	4		-	4
3.	17E00203	Business Research Methods	4		-	4
4.	17E00204	Financial Management	4		-	4
5.	17E00205	Operations Research	4		-	4
6.	17E00206	Operations Management	4		-	4
7.	17E00207	Business Communication	2		-	2
8.	17E00208	Business Analytics Lab	-		3	2
9.	17E00209	Business Communication Lab	-		3	2
		Total	26		6	30

***Note: The student shall initiate project work immediately after II semester and evaluation shall take place in IV semester**

MBA Semester – III

S. No	Course code	Subject	L	T	P	C
1.	17E00301	Business Ethics & Corporate Governance	4	-	-	4
2.	17E00302	Green Business Management	4	-	-	4
3.	17E00303	Entrepreneurship Development	4	-	-	4
4.	17E00304 17E00305 17E00306 17E00307	Elective I Cost and Management Accounting Product and Brand Management Human Resource Development Mobile Commerce	4	-	-	4
5.	17E00308 17E00309 17E00310 17E00311	Elective II Financial Institutions and Services Consumer Behavior Labor laws and Legislation Supply Chain Management	4	-	-	4
6.	17E00312 17E00313 17E00314 17E00315	Elective III Investment and Portfolio Management Rural Marketing Performance Management Enterprise Resource Planning	4	-	-	4
7.	17E00316 17E00317 17E00318 17E00319	Elective IV Auditing and Taxation Advertising and Sales Promotion Management Knowledge Management Data warehousing and Mining	4	-	-	4
8.	17E00320	Business Simulation Lab	-	-	3	2
9.	17E00321	MOOCS	-	-	-	
		Total	28	-	3	30

MBA Semester – IV

S. No	Course code	Subject	L	T	P	C
1.	17E00401	Strategic Management	4	-	-	4
2.	17E00402	E-Business	4	-	-	4
3.	17E00403 17E00404 17E00405 17E00406	Elective V Financial Derivatives Services Marketing Organization Development Data Communication and Network Analysis	4	-	-	4
4.	17E00407 17E00408 17E00409 17E00410	Elective VI International Financial Management International Marketing Global Human Resource Management Corporate Information Management	4	-	-	4
5.	17E00411	Seminar (Contemporary Issues on Business)	-	-	3	2
6.	17E00412	Project Work	-	-	12	10
		Total	16	-	15	28

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
ANANTHAPURAMU (A.P.)
COURSE STRUCTURE AND SYLLABUS
(For Affiliated Engineering Colleges w.e.f. 2017-18 Admitted Batch)

M.Tech-ECE-VLSI, VLSI SYSTEMS, VLSI SYSTEM DESIGN (VLSI, VLSIS, VLSISD)

M.Tech I Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D06101	Structural Digital System Design	4	-	-	4
2.	17D57101	Advanced MOSFET Modeling	4	-	-	4
3.	17D57102	CMOS Analog IC Design	4	-	-	4
4.	17D57103	CMOS Digital IC Design	4	-	-	4
5.		Elective-I	3	-	-	3
	17D57104	a. VLSI Signal Processing				
	17D06103	b. Advanced Computer Architecture				
	17D57105	c. CAD for VLSI				
6.		Elective-II	3	-	-	3
	17D06202	a. CPLD and FPGA Architectures and Applications				
	17D55206	b. ASIC Design				
	17D57106	c. Optimization Techniques in VLSI Design				
7.	17D38107	Structural Digital System Design Lab	-	-	3	2
8.	17D57107	VLSI System Design Lab - I	-	-	3	2
Total			22	-	06	26

M.Tech II Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D57201	Low Power VLSI Design	4	-	-	4
2.	17D57202	CMOS Mixed signal Design	4	-	-	4
3.	17D06201	Embedded System Design	4	-	-	4
4.	17D06109	Test and Testability	4	-	-	4
5.		Elective-III	3	-	-	3
	17D55201	a. System On Chip Architecture				
	17D57203	b. Semiconductor Memory Design and Testing				
	17D57204	c. RF IC Design				
6.		Elective-IV	3	-	-	3
	17D38202	a. Internet of Things				
	17D55204	b. Hardware and Software Co-design of Embedded System				
	17D57205	c. Physical Design Automation				
7.	17D38208	Embedded System Design Lab	-	-	3	2
8.	17D57206	VLSI System Design Lab - II	-	-	3	2
Total			22	-	06	26

M.Tech. II YEAR (III Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D20301 17D20302 17D20303	Elective – V (Open Elective) 1. Research Methodology 2. Human Values & Professional Ethics 3. Intellectual Property Rights	4	---	---	4
2.	17D57301	ELECTIVE – VI (MOOCs)	--	---	---	--
3.	17D57302	Comprehensive Viva Voce	--	---	---	2
4.	17D57303	Seminar	--	---	---	2
5.	17D57304	Teaching Assignment	--	---	---	2
6.	17D57305	Project Work Phase I	--	---	---	4
	Total		4			14

M.Tech. II YEAR (IV Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D57401	Project Work Phase II	--	---	---	12
	Total					12

Project Viva Voce Grades:**A: Satisfactory****B: Not Satisfactory**



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
Course Structure for B. Tech (Electrical and Electronics Engineering)
(2015-16)

II B. Tech (EEE) – I Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54301	Mathematics –III	3	1	-	3
2	15A02301	Electrical Circuits – II	3	1	-	3
3	15A02302	Electrical Machines – I	3	1	-	3
4	15A02303	Control Systems Engineering	3	1	-	3
5	15A04301	Electronic Devices & Circuits	3	1	-	3
6	15A05201	Data Structures	3	1	-	3
7	15A02305	Electric Circuits Simulation Laboratory	-		4	2
8	15A04305	Electronic Devices & Circuits Laboratory	-		4	2
		Total	18	6	8	22



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure for B. Tech (Electrical and Electronics Engineering)

(2015-16)

II B. Tech (EEE) – II Sem

S.No	Course Code	Subject	Th	Tu	Lab	C
1	15A54402	Mathematics – IV	3	1	-	3
2	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
3	15A02401	Electrical Machines – II	3	1	-	3
4	15A02402	Electrical Power Generating Systems	3	1	-	3
5	15A02403	Electromagnetic Fields	3	1	-	3
6	15A04409	Analog Electronic Circuits	3	1	-	3
7	15A02404	Electrical Machines Laboratory – I	-	-	4	2
8	15A02405	Control Systems & Simulation Laboratory	-	-	4	2
9	15A02406	Comprehensive Online Examination – I	-	-	-	1
		Total	18	6	8	23

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ANANTHAPURAMU – 515 002 (A.P.) INDIA.

Course Structure for B.Tech-R15 Regulations

ELECTRICAL & ELECTRONICS ENGINEERING

B.Tech III-I Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02501	Electrical Measurements	3	1	-	3
2.	15A04509	Linear & Digital IC Applications	3	1	-	3
3.	15A02502	Electrical Power Transmission Systems	3	1	-	3
4.	15A02503	Power Electronics	3	1	-	3
5.	15A02504	Electrical Machines – III	3	1	-	3
6.		MOOCS -I	3	1	-	3
	15A04510	Digital Circuits and Systems				
	15A02505	Networks Signals and Systems				
7.	15A02506	Electrical Machines Laboratory – II	-	-	4	2
8.	15A02507	Electrical Measurements Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total:			20	6	10	22

B.Tech III-II Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A02601	Power Semiconductor Drives	3	1	-	3
3.	15A02602	Power System Protection	3	1	-	3
4.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
5.	15A02603	Power System Analysis	3	1	-	3
6.	15A02604 15A02605 15A02606 15A01608	CBCC -I 1) Neural Networks & Fuzzy Logic 2) Programmable Logic Controller & Its Applications 3) Optimization Techniques 4) Intellectual Property Rights	3	1	-	3
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A02607	Power Electronics & Simulation Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A02608	Comprehensive Online Examination - II	-	-	-	1
Total:			18	6	12	23

B.Tech IV-I Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02701	Electrical Distribution Systems	3	1	-	3
2.	15A04603	Digital Signal Processing	3	1	-	3
3.	15A02702	Power System Operation and Control	3	1	-	3
4.	15A02703	Utilization of Electrical Energy	3	1	-	3
5.	15A02704 15A02705 15A02706	CBCC-II a) Modern Control Theory b) Switched Mode Power Converters c) Energy Auditing & Demand Side Management	3	1	-	3
6.	15A02707	CBCC-III a) Smart Grid	3	1	-	3

	15A02708	b) Flexible AC Transmission Systems				
	15A02709	c) Power Quality				
7.	15A04608	Digital Signal Processing Laboratory	-		4	2
8.	15A02710	Power Systems & Simulation Laboratory	-		4	2
Total:			18	6	8	22

B.Tech IV-II Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02801 15A02802 15A02803	MOOCS – II 1. Instrumentation 2. Power System Dynamics and Control 3. Industrial Automation & Control	3	1	-	3
2.	15A02804 15A04702 15A02805	MOOCS – III 1. HVDC Transmission 2. Embedded Systems 3. Energy Resources & Technology	3	1	-	3
3.	15A02806	Comprehensive Viva Voce	-	-	4	2
4.	15A02807	Technical Seminar	-	-	4	2
5.	15A02808	Project Work	-		24	12
Total:			6	2	32	22

2 Theory + 1 Comprehensive Viva voce + 1 Technical Seminar + 1 Project work

*Either by MOOCS manner or Self study or Conventional manner

Minor Degree in EEE

S. No.	Course Code	Subject	L	T	P	C
III B. Tech – I Semester						
1	15A02303	Control Systems Engineering	3	1	-	3
III B. Tech – II Semester						
2	15A02402	Electrical Power Generating Systems	3	1	-	3
IV B. Tech –I Semester						
3	15A02502	Electrical Power Transmission Systems	3	1	-	3
IV B. Tech – II Semester						
4	15A02603	Power System Analysis	3	1	-	3
		Total	12	4	-	12

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Course Structure for B.Tech-R15 Regulations

Mechanical Engineering

B.Tech I – I Semester (ME)

S.No	Course code	Subject	L	T	P	C
1.	15A52101	Functional English	3	1	-	3
2.	15A54101	Mathematics – I	3	1	-	3
3.	15A05101	Computer Programming	3	1	-	3
4.	15A51101	Engineering Chemistry	3	1	-	3
5.	15A01101	Environmental Studies	3	1	-	3
6.	15A52102	English Language Communication Skills Lab	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	4	2
8.	15A05102	Computer Programming Lab	-	-	4	2
Total			15	5	12	21

I-II Semester

S.No	Course code	Subject	L	T	P	Drg	C
1.	15A52201	English for Professional Communication	3	1	-	-	3
2.	15A54201	Mathematics – II	3	1	-	-	3
3.	15A03201	Material Science and Engineering	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	-	6	3
6.	15A03202	Material Science and Engineering Lab	-	-	4	-	2
7.	15A56102	Engineering Physics Lab	-	-	4	-	2
8.	15A99201	Engineering & IT Workshop	-	-	4	-	2
Total			12	4	12	6	21

- * L - Lecture hours
- * T - Tutorial hours
- * P - Practical hours
- * Drg - Drawing
- * C - Credits

II B. Tech – I Sem

S.N o.	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics - III	3	1	-	3
2	15A52301	Managerial Economics & Financial Analysis	3	1	-	3
3	15A01308	Mechanics of Solids	3	1	-	3
4	15A03301	Engineering Drawing for Mechanical Engineers	3	1	-	3
5	15A03302	Engineering Mechanics	3	1	-	3
6	15A03303	Thermodynamics	3	1	-	3
7	15A01309	Mechanics of Solids Lab	-	-	4	2
8	15A03304	Computer Aided Drafting Lab	-	-	4	2
Total			18	06	08	22

II B. Tech – II Sem

S.No.	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
3	15A03401	Machine Drawing	3	1	-	3
4	15A03402	Kinematics of Machines	3	1	-	3
5	15A03403	Thermal Engineering – 1	3	1	-	3
6	15A03404	Manufacturing Technology	3	1	-	3
7	15A03405	Thermal Engineering Laboratory	-	-	4	2
8	15A03406	Manufacturing Technology Laboratory	-	-	4	2
9	15A03407	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23

B.Tech III-I Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A01510	Fluid Mechanics and Hydraulic Machines	3	1	-	3
2.	15A03501	Thermal Engineering - II	3	1	-	3
3.	15A03502	Dynamics of Machinery	3	1	-	3
4.	15A03503	Machine Tools	3	1	-	3
5.	15A03504	Design of Machine Members - I	3	1	-	3
6.	15A03505 15A03506 15A03507	MOOCS -I a. Entrepreneurship b. Nano Technology c. Micro Electro Mechanical Systems	3	1	-	3
7.	15A01511	Fluid Mechanics and Hydraulic Machines Laboratory	-	-	4	2
8.	15A03508	Machine Tools Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	6	10	22

B.Tech III-II Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A03601	Operations Research	3	1	-	3
2.	15A03602	Design of Machine Members – II	3	1	-	3
3.	15A03603	Heat Transfer	3	1	-	3
4.	15A03604	Finite Element Method	3	1	-	3
5.	15A03605	Metal forming Process	3	1	-	3
6.	15A03606 15A03607 15A03608 15A01608	CBCC-I a. Non Conventional Source of Energy b. Total Quality Management c. Mechatronics d. Intellectual Property Rights	3	1	-	3
7.	15A03609	Heat Transfer Laboratory	-	-	4	2
8.	15A03610	Computer Aided Engineering Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)			2	-
10.	15A03611	Comprehensive Online Examination - II	-	-	-	1
Total			18	6	11	23

B.Tech IV-I Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A03701	Automobile Engineering	3	1	-	3
3.	15A03702	CAD/CAM	3	1	-	3
4.	15A03703	Metrology and Measurements	3	1	-	3
5.	15A03704 15A03705 15A03706	CBCC-II a. Refrigeration and Air – Conditioning b. Tool Design c. Modern Manufacturing Methods	3	1	-	3
6.	15A03707 15A03708 15A03709	CBCC-III a. Computational Fluid Dynamics b. Automation and Robotics c. Production & Operations Management	3	1	-	3
7.	15A03710	CAD/ CAM Laboratory	-	-	4	2
8.	15A03711	Metrology and Measurements Laboratory	-	-	4	2
Total			18	6	8	22

B.Tech IV-II Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A03801 15A03802 15A03803	MOOCS-II a. Industrial Engineering b. Product Design c. Composite Materials	3	1	0	3
2.	15A03804 15A03805 15A03806	MOOCS -III a. Power Plant Engineering b. Gas Turbines and Jet Propulsion c. Energy Management	3	1	0	3
3.	15A03807	Comprehensive Viva Voce	0	0	4	2
4.	15A03808	Technical Seminar	0	0	4	2
5.	15A03809	Project work	0	0	24	12
Total			6	2	32	22

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II B. Tech – I sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics-III	3	1	-	3
2	15A04301	Electronic Devices and Circuits	3	1	-	3
3	15A04302	Switching Theory and Logic Design	3	1	-	3
4	15A04303	Signals and Systems	3	1	-	3
5	15A04304	Probability Theory and Stochastic Processes	3	1	-	3
6	15A02306	Electrical Technology	3	1	-	3
7	15A04305	Electronic Devices and Circuits Laboratory	-	-	4	2
8	15A02307	Electrical Technology and Basic Simulation Laboratory	-	-	4	2
Total			18	06	08	22

II B. Tech – II sem

S. No	Course Code	Subject	L	T	P	C
1	15A54402	Mathematics-IV	3	1	-	3
2	15A04401	Electronic Circuit Analysis	3	1	-	3
3	15A04402	Analog Communication Systems	3	1	-	3
4	15A04403	Electromagnetic Theory and Transmission Lines	3	1	-	3
5	15A05201	Data Structures	3	1	-	3
6	15A02303	Control Systems Engineering	3	1	-	3
7	15A04404	Electronic Circuit Analysis Laboratory	-	-	4	2
8	15A04405	Analog Communication Systems Laboratory	-	-	4	2
9	15A04406	Comprehensive Online Examination-I	-	-	-	1
Total			18	06	08	23

R15

B.Tech III-I Semester (ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04511	Computer Organization	3	1	-	3
2.	15A04501	Antennas and Wave Propagation	3	1	-	3
3.	15A04502	Digital Communication Systems	3	1	-	3
4.	15A04503	Linear Integrated Circuits and Applications	3	1	-	3
5.	15A04504	Digital System Design	3	1	-	3
6.		MOOCS-I	3	1	-	3
	15A04505	a. Linux Programming & Scripting				
	15A04506	b. MEMS & Microsystems				
7.	15A04507	IC Applications Laboratory	-	-	4	2
8.	15A04508	Digital Communication Systems Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	06	10	22

B.Tech III-II Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
2.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
3.	15A04602	Electronic Measurements and Instrumentation	3	1	-	3
4.	15A04603	Digital Signal Processing	3	1	-	3
5.	15A04604	VLSI Design	3	1	-	3
6.		CBCC-I	3	1	-	3
	15A04605	a. MATLAB Programming				
	15A04606	b. Industrial Electronics				
	15A02605	c. Neural Networks & Fuzzy Logic				
	15A01608	d. Intellectual Property Rights				
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A04608	Digital Signal Processing Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A04609	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	12	23

R15**B.Tech IV-I Semester(ECE)**

S. No.	Course Code	Subject	L	T	P	C
1.	15A04701	Optical Fiber Communication	3	1	-	3
2.	15A04702	Embedded Systems	3	1	-	3
3.	15A04703	Microwave Engineering	3	1	-	3
4.	15A04704	Data Communications and Networking	3	1	-	3
5.	15A04705 15A04706 15A04707	CBCC-II a. Radar Systems b. Adaptive Signal Processing c. FPGA Design	3	1	-	3
6.	15A04708 15A04709 15A04710	CBCC-III a. Digital Image Processing b. Cellular & Mobile Communication c. Real Time Systems	3	1	-	3
7.	15A04711	Microwave and Optical Communication Laboratory	-	-	4	2
8.	15A04712	VLSI & Embedded Systems Laboratory	-	-	4	2
Total			18	06	08	22

B.Tech IV-II Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04801 15A04802	MOOCS-II* a. Advanced Digital Signal Processing- Multirate & Wavelet b. Low Power VLSI Circuits & Systems	3	1	-	3
2.	15A04803 15A04804	MOOCS-III * a. Pattern Recognition & Applications b. RF Integrated Circuits	3	1	-	3
3.	15A04805	Comprehensive Viva Voce	-	-	4	2
4.	15A04806	Technical Seminar	-	-	4	2
5.	15A04807	Project Work	-	-	24	12
Total			6	02	32	22



Jawaharlal Nehru Technological University Anantapur

(Established by Govt. of A.P., Act. No. 30 of 2008)

Ananthapuramu-515 002 (A.P) India

First Year B.Tech Course Structures and Syllabi under R19 Regulations

COMPUTER SCIENCE & ENGINEERING

Semester - 1 (Theory - 3, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54101	Algebra and Calculus	BS	3-1-0	4
2.	19A51102T	Chemistry	BS	3-0-0	3
3.	19A05101T	Problem Solving & Programming	ES	3-1-0	4
4.	19A03102	Engineering Graphics Lab	ES	1-0-4	3
5.	19A03101	Engineering Workshop	LC	0-0-2	1
6.	19A51102P	Chemistry Lab	BS	0-0-3	1.5
7.	19A05101P	Problem Solving & Programming Lab	ES	0-0-3	1.5
Total					18

Semester - 2 (Theory - 5, Lab - 5)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A02201T	Basic Electrical and Electronics Engineering	ES	3-0-0	3
2.	19A54202	Probability and Statistics	BS	3-1-0	4
3.	19A56101T	Applied Physics	BS	3-0-0	3
4.	19A05201T	Data Structures	ES	3-0-0	3
5.	19A52101T	Communicative English - I	HS	2-0-0	2
6.	19A05202	Computer Science and Engineering Workshop	LC	0-0-2	1
7.	19A52101P	Communicative English - I Lab	HS	0-0-2	1
8.	19A02201P	Basic Electrical & Electronics Engineering Lab	ES	0-0-3	1.5
9.	19A56101P	Applied Physics Lab	BS	0-0-3	1.5
10.	19A05201P	Data Structures Lab	ES	0-0-3	1.5
Total					21.5

II B. Tech – I Sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics III	3	1	-	3
2	15A05301	Database Management Systems	3	1	-	3
3	15A05302	Discrete Mathematics	3	1	-	3
4	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
5	15A04306	Digital Logic Design	3	1	-	3
6	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
7	15A05303	Database Management Systems Laboratory	-	-	4	2
8	15A99302	Basic Electrical and Electronics Laboratory	-	-	4	2
		Total	18	06	08	22

II B. Tech – II Sem

S. N o	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A05401	Software Engineering	3	1	-	3
3	15A05402	Computer Organization	3	1	-	3
4	15A04407	Microprocessors & Interfacing	3	1	-	3
5	15A05403	Object Oriented Programming using Java	3	1	-	3
6	15A05404	Formal Languages and Automata Theory	3	1	-	3
7	15A04408	Microprocessors & Interfacing Laboratory	-	-	4	2
8	15A05405	Java Programming Laboratory	-	-	4	2
9	15A05406	Comprehensive Online Examination-I	-	-	-	1
		Total	18	06	08	23

B.Tech III-I Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05501	Operating Systems	3	1	-	3
2.	15A05502	Computer Networks	3	1	-	3
3.	15A05503	Object Oriented Analysis and Design	3	1	-	3
4.	15A05504	Principles of Programming Languages	3	1	-	3
5.	15A05505	Software Testing	3	1	-	3
6.	15A05506 15A05507 15A05508	MOOCS-I a. Introduction to Big Data b. R Programming c. Introduction to Operations Management	3	1	-	3
7.	15A05509	Object Oriented Analysis and Design & Software Testing Laboratory	-	-	4	2
8.	15A05510	Operating Systems Laboratory	-	-	4	2
9.	15A99501	Social Values & Ethics (Audit Course)	2	-	2	-
Total			20	06	10	22

B.Tech III-II Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05601	Compiler Design	3	1	-	3
2.	15A05602	Data Warehousing & Mining	3	1	-	3
3.	15A05603	Design Patterns	3	1	-	3
4.	15A05604	Design and Analysis of Algorithms	3	1	-	3
5.	15A05605	Web and Internet Technologies	3	1	-	3
6.	15A05606 15A05607 15A05608 15A01608	CBCC-I a. Artificial Intelligence b. Linux Environment System c. System Applications & Product (SAP) d. Intellectual Property Rights	3	1	-	3
7.	15A05609	Web and Internet Technologies Laboratory	-	-	4	2
8.	15A05610	Data Warehousing & Mining Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills(AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A05611	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	10	23

B.Tech IV-I Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A05701	Grid & Cloud Computing	3	1	-	3
3.	15A05702	Information Security	3	1	-	3
4.	15A05703	Mobile Application Development	3	1	-	3
5.	15A05704 15A05705 15A05706	CBCC-II a. Software Architecture b. Computer Graphics c. Machine Learning	3	1	-	3
6.	15A05707 15A05708 15A05709	CBCC-III a. Software Project Management b. Distributed Systems c. Real Time Systems	3	1	-	3
7.	15A05710	Grid & Cloud Computing Laboratory	-	-	4	2
8.	15A05711	Mobile Application Development Laboratory	-	-	4	2
Total			18	06	08	22

B.Tech IV-II Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05801 15A05802 15A05803	MOOCS-II a. Data Analytics b. Mobile Computing c. Innovations and IT Management	3	1	-	3
2.	15A05804 15A05805 15A05806	MOOCS-III a. Building Large Scale Software Systems b. Enabling Technologies for Data Science Analytics : IoT c. Cyber Security	3	1	-	3
3.	15A05807	Comprehensive Viva-Voce	-	-	4	2
4.	15A05808	Technical Seminar	-	-	4	2
5.	15A05809	Project Work	-	-	24	12
Total			6	2	32	22

ELECTRICAL & ELECTRONICS ENGINEERING

Semester - 1 (Theory - 4, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54101	Algebra & Calculus	BS	3-1-0	4
2.	19A56101T	Applied Physics	BS	3-0-0	3
3.	19A05101T	Problem Solving & Programming	ES	3-1-0	4
4.	19A52101T	Communicative English 1	HS	2-0-0	2
5.	19A02101	Electrical & Electronics Engineering Workshop	LC	0-0-2	1
6.	19A56101P	Applied Physics Lab	BS	0-0-3	1.5
7.	19A05101P	Problem Solving & Programming Lab	ES	0-0-3	1.5
8.	19A52101P	Communicative English 1 Lab	HS	0-0-2	1
Total					18

Semester - 2 (Theory - 4, Lab - 5)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A01201T	Basic Civil & Mechanical Engineering	ES	3-0-0	3
2.	19A54201	Differential Equations and Vector Calculus	BS	3-1-0	4
3.	19A51102T	Chemistry	BS	3-0-0	3
4.	19A05201T	Data Structures	ES	3-0-0	3
5.	19A03101	Engineering Workshop	LC	0-0-2	1
6.	19A03102	Engineering Graphics Lab	ES	1-0-4	3
7.	19A01201P	Basic Civil & Mechanical Engineering Lab	ES	0-0-3	1.5
8.	19A51102P	Chemistry Lab	BS	0-0-3	1.5
9.	19A05201P	Data Structures Lab	ES	0-0-3	1.5
Total					21.5

MECHANICAL ENGINEERING

Semester - 1 (Theory - 3, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54101	Algebra and Calculus	BS	3-1-0	4
2.	19A51101T	Engineering Chemistry	BS	3-0-0	3
3.	19A05101T	Problem Solving & Programming	ES	3-1-0	4
4.	19A03102	Engineering Graphics Lab	ES	1-0-4	3
5.	19A03101	Engineering Workshop	LC	0-0-2	1
6.	19A51101P	Engineering Chemistry Lab	BS	0-0-3	1.5
7.	19A05101P	Problem Solving & Programming Lab	ES	0-0-3	1.5
Total					18

Semester - 2 (Theory - 5, Lab - 5)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A02201T	Basic Electrical & Electronics Engineering	ES	3-0-0	3
2.	19A54201	Differential Equations and Vector Calculus	BS	3-1-0	4
3.	19A56102T	Engineering Physics	BS	3-0-0	3
4.	19A05201T	Data Structures	ES	3-0-0	3
5.	19A52101T	Communicative English 1	HS	2-0-0	2
6.	19A52101P	Communicative English 1 Lab	HS	0-0-2	1
7.	19A03201	Mechanical Engineering Workshop	LC	0-0-2	1
8.	19A02201P	Basic Electrical & Electronics Engineering Lab	ES	0-0-3	1.5
9.	19A56102P	Engineering Physics Lab	BS	0-0-3	1.5
10.	19A05201P	Data Structures Lab	ES	0-0-3	1.5
Total					21.5

ELECTRONICS & COMMUNICATION ENGINEERING

Semester - 1 (Theory - 4, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54101	Algebra & Calculus	BS	3-1-0	4
2.	19A56101T	Applied Physics	BS	3-0-0	3
3.	19A05101T	Problem Solving & Programming	ES	3-1-0	4
4.	19A52101T	Communicative English 1	HS	2-0-0	2
5.	19A04101	Electronics & Communication Engineering Workshop	LC	0-0-2	1
6.	19A56101P	Applied Physics Lab	BS	0-0-3	1.5
7.	19A05101P	Problem Solving & Programming Lab	ES	0-0-3	1.5
8.	19A52101P	Communicative English 1 Lab	HS	0-0-2	1
Total					18

Semester - 2 (Theory - 4, Lab - 5)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A04201T	Network Theory	ES	3-0-0	3
2.	19A54201	Differential Equations and Vector Calculus	BS	3-1-0	4
3.	19A51102T	Chemistry	BS	3-0-0	3
4.	19A05201T	Data Structures	ES	3-0-0	3
5.	19A03101	Engineering Workshop	LC	0-0-2	1
6.	19A03102	Engineering Graphics Lab	ES	1-0-4	3
7.	19A04201P	Network Theory Lab	ES	0-0-3	1.5
8.	19A51102P	Chemistry Lab	BS	0-0-3	1.5
9.	19A05201P	Data Structures Lab	ES	0-0-3	1.5
Total					21.5

COMPUTER SCIENCE & ENGINEERING

Semester - 1 (Theory - 3, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54101	Algebra and Calculus	BS	3-1-0	4
2.	19A51102T	Chemistry	BS	3-0-0	3
3.	19A05101T	Problem Solving & Programming	ES	3-1-0	4
4.	19A03102	Engineering Graphics Lab	ES	1-0-4	3
5.	19A03101	Engineering Workshop	LC	0-0-2	1
6.	19A51102P	Chemistry Lab	BS	0-0-3	1.5
7.	19A05101P	Problem Solving & Programming Lab	ES	0-0-3	1.5
Total					18

Semester - 2 (Theory - 5, Lab - 5)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A02201T	Basic Electrical and Electronics Engineering	ES	3-0-0	3
2.	19A54202	Probability and Statistics	BS	3-1-0	4
3.	19A56101T	Applied Physics	BS	3-0-0	3
4.	19A05201T	Data Structures	ES	3-0-0	3
5.	19A52101T	Communicative English - I	HS	2-0-0	2
6.	19A05202	Computer Science and Engineering Workshop	LC	0-0-2	1
7.	19A52101P	Communicative English - I Lab	HS	0-0-2	1
8.	19A02201P	Basic Electrical & Electronics Engineering Lab	ES	0-0-3	1.5
9.	19A56101P	Applied Physics Lab	BS	0-0-3	1.5
10.	19A05201P	Data Structures Lab	ES	0-0-3	1.5
Total					21.5

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure and Detailed Syllabi (2017-18 onwards)

Master of Business Administration

MBA Semester – I

S. No	Course code	Subject	L	T	P	C
1.	17E00101	Management & Organizational Behaviour	4	-	-	4
2.	17E00102	Business Environment & Law	4	-	-	4
3.	17E00103	Managerial Economics	4	-	-	4
4.	17E00104	Financial Accounting for Managers	4	-	-	4
5.	17E00105	Statistics for Managers	4	-	-	4
6.	17E00106	Management Information Systems	2	-	-	2
7.	17E00107	Information Technology for Managers	2	-	-	2
8.	17E00108	Communication Lab	-	-	3	2
9.	17E00109	Data Analytics Lab	-	-	3	2
		Total	24	-	6	28

MBA Semester – II

S. No	Course code	Subject	L	T	P	Credits
1.	17E00201	Human Resource Management	4		-	4
2.	17E00202	Marketing Management	4		-	4
3.	17E00203	Business Research Methods	4		-	4
4.	17E00204	Financial Management	4		-	4
5.	17E00205	Operations Research	4		-	4
6.	17E00206	Operations Management	4		-	4
7.	17E00207	Business Communication	2		-	2
8.	17E00208	Business Analytics Lab	-		3	2
9.	17E00209	Business Communication Lab	-		3	2
		Total	26		6	30

***Note: The student shall initiate project work immediately after II semester and evaluation shall take place in IV semester**

MBA Semester – III

S. No	Course code	Subject	L	T	P	C
1.	17E00301	Business Ethics & Corporate Governance	4	-	-	4
2.	17E00302	Green Business Management	4	-	-	4
3.	17E00303	Entrepreneurship Development	4	-	-	4
4.	17E00304 17E00305 17E00306 17E00307	Elective I Cost and Management Accounting Product and Brand Management Human Resource Development Mobile Commerce	4	-	-	4
5.	17E00308 17E00309 17E00310 17E00311	Elective II Financial Institutions and Services Consumer Behavior Labor laws and Legislation Supply Chain Management	4	-	-	4
6.	17E00312 17E00313 17E00314 17E00315	Elective III Investment and Portfolio Management Rural Marketing Performance Management Enterprise Resource Planning	4	-	-	4
7.	17E00316 17E00317 17E00318 17E00319	Elective IV Auditing and Taxation Advertising and Sales Promotion Management Knowledge Management Data warehousing and Mining	4	-	-	4
8.	17E00320	Business Simulation Lab	-	-	3	2
9.	17E00321	MOOCS	-	-	-	
		Total	28	-	3	30

MBA Semester – IV

S. No	Course code	Subject	L	T	P	C
1.	17E00401	Strategic Management	4	-	-	4
2.	17E00402	E-Business	4	-	-	4
3.	17E00403 17E00404 17E00405 17E00406	Elective V Financial Derivatives Services Marketing Organization Development Data Communication and Network Analysis	4	-	-	4
4.	17E00407 17E00408 17E00409 17E00410	Elective VI International Financial Management International Marketing Global Human Resource Management Corporate Information Management	4	-	-	4
5.	17E00411	Seminar (Contemporary Issues on Business)	-	-	3	2
6.	17E00412	Project Work	-	-	12	10
		Total	16	-	15	28

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
ANANTHAPURAMU (A.P.)
COURSE STRUCTURE AND SYLLABUS
(For Affiliated Engineering Colleges w.e.f. 2017-18 Admitted Batch)

M.Tech-ECE-VLSI, VLSI SYSTEMS, VLSI SYSTEM DESIGN (VLSI, VLSIS, VLSISD)

M.Tech I Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D06101	Structural Digital System Design	4	-	-	4
2.	17D57101	Advanced MOSFET Modeling	4	-	-	4
3.	17D57102	CMOS Analog IC Design	4	-	-	4
4.	17D57103	CMOS Digital IC Design	4	-	-	4
5.		Elective-I	3	-	-	3
	17D57104	a. VLSI Signal Processing				
	17D06103	b. Advanced Computer Architecture				
	17D57105	c. CAD for VLSI				
6.		Elective-II	3	-	-	3
	17D06202	a. CPLD and FPGA Architectures and Applications				
	17D55206	b. ASIC Design				
	17D57106	c. Optimization Techniques in VLSI Design				
7.	17D38107	Structural Digital System Design Lab	-	-	3	2
8.	17D57107	VLSI System Design Lab - I	-	-	3	2
Total			22	-	06	26

M.Tech II Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D57201	Low Power VLSI Design	4	-	-	4
2.	17D57202	CMOS Mixed signal Design	4	-	-	4
3.	17D06201	Embedded System Design	4	-	-	4
4.	17D06109	Test and Testability	4	-	-	4
5.		Elective-III	3	-	-	3
	17D55201	a. System On Chip Architecture				
	17D57203	b. Semiconductor Memory Design and Testing				
	17D57204	c. RF IC Design				
6.		Elective-IV	3	-	-	3
	17D38202	a. Internet of Things				
	17D55204	b. Hardware and Software Co-design of Embedded System				
	17D57205	c. Physical Design Automation				
7.	17D38208	Embedded System Design Lab	-	-	3	2
8.	17D57206	VLSI System Design Lab - II	-	-	3	2
Total			22	-	06	26

M.Tech. II YEAR (III Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D20301 17D20302 17D20303	Elective – V (Open Elective) 1. Research Methodology 2. Human Values & Professional Ethics 3. Intellectual Property Rights	4	---	---	4
2.	17D57301	ELECTIVE – VI (MOOCs)	--	---	---	--
3.	17D57302	Comprehensive Viva Voce	--	---	---	2
4.	17D57303	Seminar	--	---	---	2
5.	17D57304	Teaching Assignment	--	---	---	2
6.	17D57305	Project Work Phase I	--	---	---	4
	Total		4			14

M.Tech. II YEAR (IV Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D57401	Project Work Phase II	--	---	---	12
	Total					12

Project Viva Voce Grades:**A: Satisfactory****B: Not Satisfactory**

JNTUA Curriculum
Electrical & Electronics Engineering B. Tech Course Structure

2nd Year to 4th Years Course Structure

Semester – 3 (Theory - 6, Lab – 3, MC-1)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54302	Complex Variables & Transforms	BS	2-1-0	3
2.	19A02301T	Basic Electrical Circuits	PC	2-1-0	3
3.	19A02302	Power System Architecture	PC	2-1-0	3
4.	19A02303T	DC Machines & Transformers	PC	2-1-0	3
5.	19A04306T	Semiconductor Devices and Circuits	PC	1-1-0	2
6.	19A04304	Digital Electronics and Logic Design	PC	2-1-0	3
7.	19A02303P	DC Machines & Transformers Lab	PC	0-0-3	1.5
8.	19A04306P	Semiconductor Devices and Circuits Lab	PC	0-0-3	1.5
9.	19A02301P	Basic Electrical Circuits Lab	PC	0-0-3	1.5
10.	19A99302	Biology For Engineers	MC	3-0-0	0
Total					21.5

Semester - 4 (Theory - 6, Lab – 2, MC-1)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54401	Numerical Methods & Probability Theory	BS	2-1-0	3
2.	19A02401T	Electrical Circuit Analysis	PC	2-1-0	3
3.	19A02402	Engineering Electromagnetics	PC	2-1-0	3
4.	19A02403	Power Electronics	PC	2-1-0	3
5.	19A04405	Analog Electronic Circuits	PC	2-1-0	3
6.	19A05304T	Python Programming	ES	2-1-0	3
7.	19A02401P	Electrical Circuit Analysis Lab	PC	0-0-3	1.5
8.	19A04406	Electronic Circuits Lab	PC	0-0-3	1.5
9.	19A99301	Environmental Science	MC	3-0-0	0
Total					21

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ANANTHAPURAMU – 515 002 (A.P.) INDIA.

Course Structure for B.Tech-R15 Regulations

ELECTRICAL & ELECTRONICS ENGINEERING

B.Tech III-I Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02501	Electrical Measurements	3	1	-	3
2.	15A04509	Linear & Digital IC Applications	3	1	-	3
3.	15A02502	Electrical Power Transmission Systems	3	1	-	3
4.	15A02503	Power Electronics	3	1	-	3
5.	15A02504	Electrical Machines – III	3	1	-	3
6.		MOOCS -I	3	1	-	3
	15A04510	Digital Circuits and Systems				
	15A02505	Networks Signals and Systems				
7.	15A02506	Electrical Machines Laboratory – II	-	-	4	2
8.	15A02507	Electrical Measurements Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total:			20	6	10	22

B.Tech III-II Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A02601	Power Semiconductor Drives	3	1	-	3
3.	15A02602	Power System Protection	3	1	-	3
4.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
5.	15A02603	Power System Analysis	3	1	-	3
6.	15A02604 15A02605 15A02606 15A01608	CBCC -I 1) Neural Networks & Fuzzy Logic 2) Programmable Logic Controller & Its Applications 3) Optimization Techniques 4) Intellectual Property Rights	3	1	-	3
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A02607	Power Electronics & Simulation Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A02608	Comprehensive Online Examination - II	-	-	-	1
Total:			18	6	12	23

B.Tech IV-I Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02701	Electrical Distribution Systems	3	1	-	3
2.	15A04603	Digital Signal Processing	3	1	-	3
3.	15A02702	Power System Operation and Control	3	1	-	3
4.	15A02703	Utilization of Electrical Energy	3	1	-	3
5.	15A02704 15A02705 15A02706	CBCC-II a) Modern Control Theory b) Switched Mode Power Converters c) Energy Auditing & Demand Side Management	3	1	-	3
6.	15A02707	CBCC-III a) Smart Grid	3	1	-	3

	15A02708	b) Flexible AC Transmission Systems				
	15A02709	c) Power Quality				
7.	15A04608	Digital Signal Processing Laboratory	-		4	2
8.	15A02710	Power Systems & Simulation Laboratory	-		4	2
Total:			18	6	8	22

B.Tech IV-II Semester (EEE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A02801 15A02802 15A02803	MOOCS – II 1. Instrumentation 2. Power System Dynamics and Control 3. Industrial Automation & Control	3	1	-	3
2.	15A02804 15A04702 15A02805	MOOCS – III 1. HVDC Transmission 2. Embedded Systems 3. Energy Resources & Technology	3	1	-	3
3.	15A02806	Comprehensive Viva Voce	-	-	4	2
4.	15A02807	Technical Seminar	-	-	4	2
5.	15A02808	Project Work	-		24	12
Total:			6	2	32	22

2 Theory + 1 Comprehensive Viva voce + 1 Technical Seminar + 1 Project work

*Either by MOOCS manner or Self study or Conventional manner

Minor Degree in EEE

S. No.	Course Code	Subject	L	T	P	C
III B. Tech – I Semester						
1	15A02303	Control Systems Engineering	3	1	-	3
III B. Tech – II Semester						
2	15A02402	Electrical Power Generating Systems	3	1	-	3
IV B. Tech –I Semester						
3	15A02502	Electrical Power Transmission Systems	3	1	-	3
IV B. Tech – II Semester						
4	15A02603	Power System Analysis	3	1	-	3
		Total	12	4	-	12



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II year B.Tech Course Structures and Syllabi under R19 Regulations

JNTUA Curriculum
Mechanical Engineering B. Tech Course Structure

2nd Year to 4th Years Course Structure

Semester - 3 (Theory - 6, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54301	Complex Variables, Transforms and PDE	BS	2-1-0	3
2.	19A05304T	Python Programming	ES	2-1-0	3
3.	19A03301T	Manufacturing Processes	PC	3-0-0	3
4.	19A03302	Engineering Mechanics	PC	3-0-0	3
5.	19A03303T	Material Science and Engineering	PC	3-0-0	3
6.	19A99303T	Design Thinking & Product Innovation	ES	2-0-0	2
7.	19A99303P	Design Thinking & Product Innovation Lab	ES	0-0-3	1.5
8.	19A03301P	Manufacturing Processes Lab	PC	0-0-3	1.5
9.	19A03303P	Material Science and Engineering Lab	PC	0-0-3	1.5
10.	19A99301	Environmental Sciences	MC	3-0-0	0
Total					21.5

Semester - 4 (Theory - 6, Lab - 2)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54304	Numerical Methods and Probability theory	BS	2-1-0	3
2.	19A03401	Thermodynamics	PC	2-1-0	3
3.	19A03402T	Mechanics of Materials	PC	2-1-0	3
4.	19A01407	Fluid Mechanics and Hydraulic Machinery	PC	2-1-0	3
5.	19A05406T	Internet of Things	ES	2-0-2	3
6.	19A03403	Kinematics of Machinery	PC	2-1-0	3
7.	19A03404	Computer Aided Machine Drawing	PC	0-0-3	1.5
8.	19A03402P	Mechanics of Materials Lab	PC	0-0-3	1.5
9.	19A99302	Biology For Engineers	MC	3-0-0	0
Total					21

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Course Structure for B.Tech-R15 Regulations

Mechanical Engineering

B.Tech III-I Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A01510	Fluid Mechanics and Hydraulic Machines	3	1	-	3
2.	15A03501	Thermal Engineering - II	3	1	-	3
3.	15A03502	Dynamics of Machinery	3	1	-	3
4.	15A03503	Machine Tools	3	1	-	3
5.	15A03504	Design of Machine Members - I	3	1	-	3
6.	15A03505 15A03506 15A03507	MOOCS -I a. Entrepreneurship b. Nano Technology c. Micro Electro Mechanical Systems	3	1	-	3
7.	15A01511	Fluid Mechanics and Hydraulic Machines Laboratory	-	-	4	2
8.	15A03508	Machine Tools Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	6	10	22

B.Tech III-II Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A03601	Operations Research	3	1	-	3
2.	15A03602	Design of Machine Members – II	3	1	-	3
3.	15A03603	Heat Transfer	3	1	-	3
4.	15A03604	Finite Element Method	3	1	-	3
5.	15A03605	Metal forming Process	3	1	-	3
6.	15A03606 15A03607 15A03608 15A01608	CBCC-I a. Non Conventional Source of Energy b. Total Quality Management c. Mechatronics d. Intellectual Property Rights	3	1	-	3
7.	15A03609	Heat Transfer Laboratory	-	-	4	2
8.	15A03610	Computer Aided Engineering Laboratory	-	-	4	2

9.	15A52602	Advanced English Language Communication Skills (AELCS) Laboratory (Audit Course)			2	-
10.	15A03611	Comprehensive Online Examination - II	-	-	-	1
Total			18	6	11	23

B.Tech IV-I Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A03701	Automobile Engineering	3	1	-	3
3.	15A03702	CAD/CAM	3	1	-	3
4.	15A03703	Metrology and Measurements	3	1	-	3
5.	15A03704 15A03705 15A03706	CBCC-II a. Refrigeration and Air – Conditioning b. Tool Design c. Modern Manufacturing Methods	3	1	-	3
6.	15A03707 15A03708 15A03709	CBCC-III a. Computational Fluid Dynamics b. Automation and Robotics c. Production & Operations Management	3	1	-	3
7.	15A03710	CAD/ CAM Laboratory	-	-	4	2
8.	15A03711	Metrology and Measurements Laboratory	-	-	4	2
Total			18	6	8	22

B.Tech IV-II Semester (ME)

S. No.	Course Code	Subject	L	T	P	C
1.	15A03801 15A03802 15A03803	MOOCS-II a. Industrial Engineering b. Product Design c. Composite Materials	3	1	0	3
2.	15A03804 15A03805 15A03806	MOOCS -III a. Power Plant Engineering b. Gas Turbines and Jet Propulsion c. Energy Management	3	1	0	3
3.	15A03807	Comprehensive Viva Voce	0	0	4	2
4.	15A03808	Technical Seminar	0	0	4	2
5.	15A03809	Project work	0	0	24	12
Total			6	2	32	22

JNTUA Curriculum
Electronics and Communication Engineering B. Tech Course Structure

2nd Year to 4th Years Course Structure

Semester – 3 (Theory - 6, Lab –3)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A54302	Complex Variables and Transforms	BS	3-0-0	3
2.	19A04301	Signals & Systems	PC	3-0-0	3
3.	19A04302T	Electronic Devices and Circuits	PC	3-0-0	3
4.	19A04303	Probability Theory and Stochastic Processes	PC	3-0-0	3
5.	19A04304	Digital Electronics and Logic Design	PC	3-0-0	3
6.	19A02304T	Electrical Technology	ES	3-0-0	3
7.	19A04302P	Electronic Devices and Circuits Lab	PC	0-0-3	1.5
8.	19A04305	Basic Simulation Lab	PC	0-0-2	1
9.	19A02304P	Electrical Technology Lab	ES	0-0-2	1
10.	19A99302	Biology For Engineers	HS	3-0-0	0
Total					21.5

Semester – 4 (Theory - 6, Lab –2)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	19A04401	Electromagnetic Waves and Transmission lines	PC	3-0-0	3
2.	19A04402T	Electronic Circuits – Analysis and Design	PC	3-0-0	3
3.	19A02404	Control Systems	ES	3-0-0	3
4.	19A04403T	Analog Communications	PC	3-0-0	3
5.	19A05304T	Python Programming	ES	2-1-0	3
6.	19A04404	Computer Architecture and Organization	PC	3-0-0	3
7.	19A04402P	Electronic Circuits – Analysis and Design Lab	PC	0-0-3	1.5
8.	19A04403P	Analog Communications Lab	PC	0-0-3	1.5
9.	19A99301	Environmental Science	BS	3-0-0	0
Total					21

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B.Tech III-I Semester (ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04511	Computer Organization	3	1	-	3
2.	15A04501	Antennas and Wave Propagation	3	1	-	3
3.	15A04502	Digital Communication Systems	3	1	-	3
4.	15A04503	Linear Integrated Circuits and Applications	3	1	-	3
5.	15A04504	Digital System Design	3	1	-	3
6.		MOOCS-I	3	1	-	3
	15A04505	a. Linux Programming & Scripting				
	15A04506	b. MEMS & Microsystems				
7.	15A04507	IC Applications Laboratory	-	-	4	2
8.	15A04508	Digital Communication Systems Laboratory	-	-	4	2
9.	15A99501	Audit course – Social Values & Ethics	2	0	2	0
Total			20	06	10	22

B.Tech III-II Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
2.	15A04601	Microprocessors & Microcontrollers	3	1	-	3
3.	15A04602	Electronic Measurements and Instrumentation	3	1	-	3
4.	15A04603	Digital Signal Processing	3	1	-	3
5.	15A04604	VLSI Design	3	1	-	3
6.		CBCC-I	3	1	-	3
	15A04605	a. MATLAB Programming				
	15A04606	b. Industrial Electronics				
	15A02605	c. Neural Networks & Fuzzy Logic				
	15A01608	d. Intellectual Property Rights				
7.	15A04607	Microprocessors & Microcontrollers Laboratory	-	-	4	2
8.	15A04608	Digital Signal Processing Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication (AELCS) Laboratory (Audit Course)	-	-	2	-
10.	15A04609	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	12	23

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B.Tech IV-I Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04701	Optical Fiber Communication	3	1	-	3
2.	15A04702	Embedded Systems	3	1	-	3
3.	15A04703	Microwave Engineering	3	1	-	3
4.	15A04704	Data Communications and Networking	3	1	-	3
5.	15A04705 15A04706 15A04707	CBCC-II a. Radar Systems b. Adaptive Signal Processing c. FPGA Design	3	1	-	3
6.	15A04708 15A04709 15A04710	CBCC-III a. Digital Image Processing b. Cellular & Mobile Communication c. Real Time Systems	3	1	-	3
7.	15A04711	Microwave and Optical Communication Laboratory	-	-	4	2
8.	15A04712	VLSI & Embedded Systems Laboratory	-	-	4	2
Total			18	06	08	22

B.Tech IV-II Semester(ECE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A04801 15A04802	MOOCS-II* a. Advanced Digital Signal Processing- Multirate & Wavelet b. Low Power VLSI Circuits & Systems	3	1	-	3
2.	15A04803 15A04804	MOOCS-III * a. Pattern Recognition & Applications b. RF Integrated Circuits	3	1	-	3
3.	15A04805	Comprehensive Viva Voce	-	-	4	2
4.	15A04806	Technical Seminar	-	-	4	2
5.	15A04807	Project Work	-	-	24	12
Total			6	02	32	22

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Course Structure for B.Tech-R15 Regulations

COMPUTER SCIENCE AND ENGINEERING

I B.Tech. - I Semester

S.N o	Course code	Subject	L	T	P	Drg	C
1.	15A52101	Functional English	3	1	-	-	3
2.	15A54101	Mathematics – I	3	1	-	-	3
3.	15A05101	Computer Programming	3	1	-	-	3
4.	15A56101	Engineering Physics	3	1	-	-	3
5.	15A03101	Engineering Drawing	-	-	-	6	3
6.	15A52102	English Language Communication Skills Lab	-	-	4	-	2
7.	15A56102	Engineering Physics Lab	-	-	4	-	2
8.	15A05102	Computer Programming Lab	-	-	4	-	2
Total			12	4	12	6	21

I-II Semester

S.N o	Course code	Subject	L	T	P	C
1.	15A52201	English for Professional Communication	3	1	-	3
2.	15A54201	Mathematics – II	3	1	-	3
3.	15A05201	Data Structures	3	1	-	3
4.	15A51101	Engineering Chemistry	3	1	-	3
5.	15A01101	Environmental Studies	3	1	-	3
6.	15A05202	Data Structures Lab	-	-	4	2
7.	15A51102	Engineering Chemistry Lab	-	-	4	2
8.	15A99201	Engineering & IT Workshop	-	-	4	2
Total			15	5	12	21

* L - Lecture hours

*T - Tutorial hours

*P - Practical hours

*Drg - Drawing

*C - Credits

II B. Tech – I Sem

S. No	Course Code	Subject	L	T	P	C
1	15A54301	Mathematics III	3	1	-	3
2	15A05301	Database Management Systems	3	1	-	3
3	15A05302	Discrete Mathematics	3	1	-	3
4	15A99301	Basic Electrical and Electronics Engineering	3	1	-	3
5	15A04306	Digital Logic Design	3	1	-	3
6	15A52301	Managerial Economics and Financial Analysis	3	1	-	3
7	15A05303	Database Management Systems Laboratory	-	-	4	2
8	15A99302	Basic Electrical and Electronics Laboratory	-	-	4	2
		Total	18	06	08	22

II B. Tech – II Sem

S. No	Course Code	Subject	L	T	P	C
1	15A54401	Probability and Statistics	3	1	-	3
2	15A05401	Software Engineering	3	1	-	3
3	15A05402	Computer Organization	3	1	-	3
4	15A04407	Microprocessors & Interfacing	3	1	-	3
5	15A05403	Object Oriented Programming using Java	3	1	-	3
6	15A05404	Formal Languages and Automata Theory	3	1	-	3
7	15A04408	Microprocessors & Interfacing Laboratory	-	-	4	2
8	15A05405	Java Programming Laboratory	-	-	4	2
9	15A05406	Comprehensive Online Examination-I	-	-	-	1
		Total	18	06	08	23

B.Tech III-I Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05501	Operating Systems	3	1	-	3
2.	15A05502	Computer Networks	3	1	-	3
3.	15A05503	Object Oriented Analysis and Design	3	1	-	3
4.	15A05504	Principles of Programming Languages	3	1	-	3
5.	15A05505	Software Testing	3	1	-	3
6.	15A05506 15A05507 15A05508	MOOCS-I a. Introduction to Big Data b. R Programming c. Introduction to Operations Management	3	1	-	3
7.	15A05509	Object Oriented Analysis and Design & Software Testing Laboratory	-	-	4	2
8.	15A05510	Operating Systems Laboratory	-	-	4	2
9.	15A99501	Social Values & Ethics (Audit Course)	2	-	2	-
Total			20	06	10	22

B.Tech III-II Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05601	Compiler Design	3	1	-	3
2.	15A05602	Data Warehousing & Mining	3	1	-	3
3.	15A05603	Design Patterns	3	1	-	3
4.	15A05604	Design and Analysis of Algorithms	3	1	-	3
5.	15A05605	Web and Internet Technologies	3	1	-	3
6.	15A05606 15A05607 15A05608 15A01608	CBCC-I a. Artificial Intelligence b. Linux Environment System c. System Applications & Product (SAP) d. Intellectual Property Rights	3	1	-	3
7.	15A05609	Web and Internet Technologies Laboratory	-	-	4	2
8.	15A05610	Data Warehousing & Mining Laboratory	-	-	4	2
9.	15A52602	Advanced English Language Communication Skills(AELCS) Laboratory) (Audit Course)	-	-	2	-
10.	15A05611	Comprehensive Online Examination-II	-	-	-	1
Total			18	06	10	23

B.Tech IV-I Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A52601	Management Science	3	1	-	3
2.	15A05701	Grid & Cloud Computing	3	1	-	3
3.	15A05702	Information Security	3	1	-	3
4.	15A05703	Mobile Application Development	3	1	-	3
5.	15A05704 15A05705 15A05706	CBCC-II a. Software Architecture b. Computer Graphics c. Machine Learning	3	1	-	3
6.	15A05707 15A05708 15A05709	CBCC-III a. Software Project Management b. Distributed Systems c. Real Time Systems	3	1	-	3
7.	15A05710	Grid & Cloud Computing Laboratory	-	-	4	2
8.	15A05711	Mobile Application Development Laboratory	-	-	4	2
Total			18	06	08	22

B.Tech IV-II Semester (CSE)

S. No.	Course Code	Subject	L	T	P	C
1.	15A05801 15A05802 15A05803	MOOCS-II a. Data Analytics b. Mobile Computing c. Innovations and IT Management	3	1	-	3
2.	15A05804 15A05805 15A05806	MOOCS-III a. Building Large Scale Software Systems b. Enabling Technologies for Data Science Analytics : IoT c. Cyber Security	3	1	-	3
3.	15A05807	Comprehensive Viva-Voce	-	-	4	2
4.	15A05808	Technical Seminar	-	-	4	2
5.	15A05809	Project Work	-	-	24	12
Total			6	2	32	22



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Electronics & Communication Engineering

Semester - 1 (Theory - 5, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P/D	Credits
1.	20A54101	Linear Algebra and Calculus	BS	3-0-0	3
2.	20A56201T	Applied Physics	BS	3-0-0	3
3.	20A52101T	Communicative English	HS	3-0-0	3
4.	20A02101T	Fundamentals of Electrical Circuits	ES	3-0-0	3
5.	20A03101T	Engineering Drawing	ES	1-0-0/2	2
6.	20A03101P	Engineering Graphics Lab	ES	0-0-2	1
7.	20A56201P	Applied Physics Lab	BS	0-0-3	1.5
8.	20A52101P	Communicative English Lab	HS	0-0-3	1.5
9.	20A02101P	Fundamentals of Electrical Circuits Lab	ES	0-0-2	1.5
Total					19.5

Semester – 2 (Theory – 5, Lab – 5)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	20A54201	Differential Equations and Vector Calculus	BS	3-0-0	3
2.	20A51101T	Chemistry	BS	3-0-0	3
3.	20A05201T	C-Programming & Data Structures	ES	3-0-0	3
4.	20A04101T	Electronic Devices & Circuits	ES	3-0-0	3
5.	20A03202	Engineering Workshop	LC	0-0-3	1.5
6.	20A05202	IT Workshop	LC	0-0-3	1.5
7.	20A05201P	C-Programming & Data Structures Lab	ES	0-0-3	1.5
8.	20A51101P	Chemistry Lab	BS	0-0-3	1.5
9.	20A04101P	Electronic Devices & Circuits Lab	ES	0-0-3	1.5
10.	20A99201	Environmental Science	MC	3-0-0	0.0
Total					19.5



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CSE
Course Structure (R20)

Semester - 1 (Theory - 5, Lab - 4)					
S.No	Course No	Course Name	Category	L-T-P	Credits
1.	20A54101	Linear Algebra and Calculus	BS	3-0-0	3
2.	20A51101T	Chemistry	BS	3-0-0	3
3.	20A05201T	C-Programming & Data Structures	ES	3-0-0	3
4.	20A02101T	Basic Electrical & Electronics Engineering	ES	3-0-0	3
5.	20A03202	Engineering Workshop	LC	0-0-3	1.5
6.	20A05202	IT Workshop	LC	0-0-3	1.5
7.	20A51101P	Chemistry Lab	BS	0-0-3	1.5
8.	20A05201P	C-Programming & Data Structures Lab	ES	0-0-3	1.5
9.	20A02101P	Basic Electrical & Electronics Engineering Lab	ES	0-0-2	1.5
Total					19.5

Semester – 2 (Theory – 5, Lab – 5)					
S.No	Course No	Course Name	Category	L-T-P/D	Credits
1.	20A54202	Probability & Statistics	BS	3-0-0	3
2.	20A56201T	Applied Physics	BS	3-0-0	3
3.	20A52101T	Communicative English	HS	3-0-0	3
4.	20A05101T	Python Programming & Data Science	ES	3-0-0	3
5.	20A03101T	Engineering Drawing	ES	1-0-0/2	2
6.	20A03101P	Engineering Graphics Lab	ES	0-0-2	1
7.	20A52101P	Communicative English Lab	HS	0-0-3	1.5
8.	20A56201P	Applied Physics Lab	BS	0-0-3	1.5
9.	20A05101P	Python Programming & Data Science Lab	ES	0-0-3	1.5
10.	20A52201	Universal Human Values	MC	3-0-0	0.0
Total					19.5

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR

Course Structure and Detailed Syllabi (2017-18 onwards)

Master of Business Administration

MBA Semester – I

S. No	Course code	Subject	L	T	P	C
1.	17E00101	Management & Organizational Behaviour	4	-	-	4
2.	17E00102	Business Environment & Law	4	-	-	4
3.	17E00103	Managerial Economics	4	-	-	4
4.	17E00104	Financial Accounting for Managers	4	-	-	4
5.	17E00105	Statistics for Managers	4	-	-	4
6.	17E00106	Management Information Systems	2	-	-	2
7.	17E00107	Information Technologie for Managers	2	-	-	2
8.	17E00108	Communication Lab	-	-	3	2
9.	17E00109	Data Analytics Lab	-	-	3	2
		Total	24	-	6	28

MBA Semester – II

S. No	Course code	Subject	L	T	P	Credits
1.	17E00201	Human Resource Management	4		-	4
2.	17E00202	Marketing Management	4		-	4
3.	17E00203	Business Research Methods	4		-	4
4.	17E00204	Financial Management	4		-	4
5.	17E00205	Operations Research	4		-	4
6.	17E00206	Operations Management	4		-	4
7.	17E00207	Business Communication	2		-	2
8.	17E00208	Business Analytics Lab	-		3	2
9.	17E00209	Business Communication Lab	-		3	2
		Total	26		6	30

***Note: The student shall initiate project work immediately after II semester and evaluation shall take place in IV semester**

MBA Semester – III

S. No	Course code	Subject	L	T	P	C
1.	17E00301	Business Ethics & Corporate Governance	4	-	-	4
2.	17E00302	Green Business Management	4	-	-	4
3.	17E00303	Entrepreneurship Development	4	-	-	4
4.	17E00304 17E00305 17E00306 17E00307	Elective I Cost and Management Accounting Product and Brand Management Human Resource Development Mobile Commerce	4	-	-	4
5.	17E00308 17E00309 17E00310 17E00311	Elective II Financial Institutions and Services Consumer Behavior Labor laws and Legislation Supply Chain Management	4	-	-	4
6.	17E00312 17E00313 17E00314 17E00315	Elective III Investment and Portfolio Management Rural Marketing Performance Management Enterprise Resource Planning	4	-	-	4
7.	17E00316 17E00317 17E00318 17E00319	Elective IV Auditing and Taxation Advertising and Sales Promotion Management Knowledge Management Data warehousing and Mining	4	-	-	4
8.	17E00320	Business Simulation Lab	-	-	3	2
9.	17E00321	MOOCS	-	-	-	
		Total	28	-	3	30

MBA Semester – IV

S. No	Course code	Subject	L	T	P	C
1.	17E00401	Strategic Management	4	-	-	4
2.	17E00402	E-Business	4	-	-	4
3.	17E00403 17E00404 17E00405 17E00406	Elective V Financial Derivatives Services Marketing Organization Development Data Communication and Network Analysis	4	-	-	4
4.	17E00407 17E00408 17E00409 17E00410	Elective VI International Financial Management International Marketing Global Human Resource Management Corporate Information Management	4	-	-	4
5.	17E00411	Seminar (Contemporary Issues on Business)	-	-	3	2
6.	17E00412	Project Work	-	-	12	10
		Total	16	-	15	28

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
ANANTHAPURAMU (A.P.)
COURSE STRUCTURE AND SYLLABUS
(For Affiliated Engineering Colleges w.e.f. 2017-18 Admitted Batch)

M.Tech-ECE-VLSI, VLSI SYSTEMS, VLSI SYSTEM DESIGN (VLSI, VLSIS, VLSISD)

M.Tech I Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D06101	Structural Digital System Design	4	-	-	4
2.	17D57101	Advanced MOSFET Modeling	4	-	-	4
3.	17D57102	CMOS Analog IC Design	4	-	-	4
4.	17D57103	CMOS Digital IC Design	4	-	-	4
5.		Elective-I	3	-	-	3
	17D57104	a. VLSI Signal Processing				
	17D06103	b. Advanced Computer Architecture				
	17D57105	c. CAD for VLSI				
6.		Elective-II	3	-	-	3
	17D06202	a. CPLD and FPGA Architectures and Applications				
	17D55206	b. ASIC Design				
	17D57106	c. Optimization Techniques in VLSI Design				
7.	17D38107	Structural Digital System Design Lab	-	-	3	2
8.	17D57107	VLSI System Design Lab - I	-	-	3	2
Total			22	-	06	26

M.Tech II Semester

S.No	Subject Code	Subject	L	T	P	C
1.	17D57201	Low Power VLSI Design	4	-	-	4
2.	17D57202	CMOS Mixed signal Design	4	-	-	4
3.	17D06201	Embedded System Design	4	-	-	4
4.	17D06109	Test and Testability	4	-	-	4
5.		Elective-III	3	-	-	3
	17D55201	a. System On Chip Architecture				
	17D57203	b. Semiconductor Memory Design and Testing				
	17D57204	c. RF IC Design				
6.		Elective-IV	3	-	-	3
	17D38202	a. Internet of Things				
	17D55204	b. Hardware and Software Co-design of Embedded System				
	17D57205	c. Physical Design Automation				
7.	17D38208	Embedded System Design Lab	-	-	3	2
8.	17D57206	VLSI System Design Lab - II	-	-	3	2
Total			22	-	06	26

M.Tech. II YEAR (III Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D20301 17D20302 17D20303	Elective – V (Open Elective) 1. Research Methodology 2. Human Values & Professional Ethics 3. Intellectual Property Rights	4	---	---	4
2.	17D57301	ELECTIVE – VI (MOOCs)	--	---	---	--
3.	17D57302	Comprehensive Viva Voce	--	---	---	2
4.	17D57303	Seminar	--	---	---	2
5.	17D57304	Teaching Assignment	--	---	---	2
6.	17D57305	Project Work Phase I	--	---	---	4
	Total		4			14

M.Tech. II YEAR (IV Semester)

S. No	Course Code	Subject	L	T	P	C
1.	17D57401	Project Work Phase II	--	---	---	12
	Total					12

Project Viva Voce Grades:**A: Satisfactory****B: Not Satisfactory**