



**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
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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**

**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



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR**  
**Course Structure for Mechanical Engineering**  
**B. Tech Course**  
**(2015-16)**

**II B. Tech – I Sem**

S.No.	Course Code	Subject	L	Tu	Lab	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
		<b>Total</b>	<b>18</b>	<b>06</b>	<b>08</b>	<b>22</b>



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR**  
**Course Structure for Mechanical Engineering**  
**B. Tech Course**  
**(2015-16)**

**II B. Tech – II Sem**

S.No.	Course Code	Subject	L	Tu	Lab	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
		<b>Total</b>	<b>18</b>	<b>06</b>	<b>08</b>	<b>23</b>

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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.		<b>MOOCS -I</b>		1	-	
	15A03505	a. Entrepreneurship	3			3
	15A03506	b. Nano Technology				
	15A03507	c. Micro Electro Mechanical Systems				
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
<b>Total:</b>			<b>20</b>	<b>6</b>	<b>10</b>	<b>22</b>

**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.		<b>CBCC-I</b>		1	-	
	15A03606	a. Non Conventional Source of Energy	3			3
	15A03607	b. Total Quality Management				

	15A03608	c. Mechatronics				
	15A01608	d. Intellectual Property Rights				
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
<b>Total:</b>			<b>18</b>	<b>6</b>	<b>11</b>	<b>23</b>

There shall be a comprehensive online examination conducted by the respective colleges with 60 objective questions for 60 marks on the subjects studied in the third year (I & II semesters). The Principals of the respective colleges are given the responsibility of preparing question bank/ question paper and conducting the online examination maintaining confidentiality. A student shall acquire 1 credit assigned to the comprehensive online examination only when he/she secures 40% or more marks. In case, if a student fails in comprehensive online examination, he shall reappear/ re-register by following a similar procedure adopted for the lab examinations.

### 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.		<b>CBCC-II</b>		1	-	
	15A03704	a. Refrigeration and Air – Conditioning	3			3
	15A03705	b. Tool Design				
	15A03706	c. Modern Manufacturing Methods				
6.		<b>CBCC-III</b>		1	-	
	15A03707	a. Computational Fluid Dynamics	3			3
	15A03708	b. Automation and Robotics				
	15A03709	c. Production & Operations Management				
7.	15A03710	CAD/ CAM Laboratory	-	-	4	2
8.	15A03711	Metrology and Measurements Laboratory	-	-	4	2
<b>Total:</b>			<b>18</b>	<b>6</b>	<b>8</b>	<b>22</b>

**B.Tech IV-II Semester (ME)**

S. No.	Course Code	Subject	L	T	P	C
1.	15A03801 15A03802 15A03803	<b>MOOCS-II</b> a. Industrial Engineering b. Product Design c. Composite Materials	3	1	0	3
2.	15A03804 15A03805 15A03806	<b>MOOCS -III</b> 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
<b>Total:</b>			<b>6</b>	<b>2</b>	<b>32</b>	<b>22</b>

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 ME**

S. No.	Course Code	Subject	L	T	P	C
<b>III B. Tech – I Semester</b>						
1	15A03303	Thermodynamics	3	1	-	3
<b>III B. Tech – II Semester</b>						
2	15A03403	Thermal Engineering-I	3	1	-	3
<b>IV B. Tech –I Semester</b>						
3	15A03501	Thermal Engineering-II	3	1	-	3
<b>IV B. Tech – II Semester</b>						
4	15A03603	Heat Transfer	3	1	-	3
		<b>Total</b>	<b>12</b>	<b>4</b>	<b>-</b>	<b>12</b>