

# **ACADEMIC REGULATIONS & COURSE STRUCTURE**

**For**

**MACHINE DESIGN**

*(Applicable for batches admitted from 2016-2017)*



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY: KAKINADA**  
**KAKINADA - 533 003, Andhra Pradesh, India**

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## I Semester

S.No.	Subject	L	P	C
1	Computational Methods in Engineering	4	--	3
2	Advanced Mechanics of Solids	4	--	3
3	Advanced Mechanisms	4	--	3
4	Mechanical Vibrations	4	--	3
5	<b>Elective – I</b> 1. Design of Automobile Systems 2. Product Design 3. Geometric Modeling 4. Non Destructive Evaluation	4	--	3
6	<b>Elective – II</b> 1. Fracture Mechanics 2. Gear Engineering 3. Design for Manufacturing & Assembly 4. Continuum Mechanics	4	--	3
7	Machine Dynamics Lab	--	3	2
<b>Total Credits</b>				<b>20</b>

## II Semester

S.No.	Subject	L	P	C
1	Optimization and Reliability	4	--	3
2	Experimental Stress Analysis	4	--	3
3	Finite Element Method	4	--	3
4	Design with advanced Materials	4	--	3
5	<b>Elective – III</b> 1. Tribology 2. Signal Analysis and Condition Monitoring 3. Computational Fluid Dynamics 4. Design Synthesis	4	--	3
6	<b>Elective-IV</b> 1. Pressure Vessel Design 2. Mechanics of Composite Materials 3. Mechatronics 4. Theory of Plasticity	4	--	3
7	Design Practice Lab	--	3	2
<b>Total Credits</b>				<b>20</b>

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### III Semester

<b>S. No.</b>	<b>Subject</b>	<b>L</b>	<b>P</b>	<b>Credits</b>
1	Comprehensive Viva-Voce	--	--	2
2	Seminar – I	--	--	2
3	Project Work Part - I	--	--	16
<b>Total Credits</b>				<b>20</b>

### IV Semester

<b>S. No.</b>	<b>Subject</b>	<b>L</b>	<b>P</b>	<b>Credits</b>
1	Seminar – II	--	--	2
2	Project Work Part - II	--	--	18
<b>Total Credits</b>				<b>20</b>

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