

## Electronics and Communication Engineering

<p><b>1st Sem</b></p> <ol style="list-style-type: none"><li>1. Engineering Foundation-I (Computer Programming) (L-T-P: 2-0-4)</li><li>2. Engineering Mathematics-I (Calculus and Transform) (L-T-P: 4-0-0)</li><li>3. Environmental Studies (L-T-P: 2-0-2)</li><li>4. Engineering Drawing &amp; Visualization (L-T-P: 0-0-4)</li><li>5. Physics-I (L-T-P: 3-0-2)</li><li>6. Chemistry-I (L-T-P: 3-0-2)</li><li>7. English in Practice (Non-Credit) (L-T-P: 2-0-2)</li></ol> <p><b>Total Credit: 21</b></p>	<p><b>2nd Sem</b></p> <ol style="list-style-type: none"><li>1. Engineering Foundation-II (Data Structure) (L-T-P: 3-0-2)</li><li>2. Product Realization (L-T-P: 0-0-4)</li><li>3. Engineering Mathematics-II (Probability and Statistics) (L-T-P: 4-0-0)</li><li>4. Principles of Economics (L-T-P: 2-0-0)</li><li>5. Physics-II/ Chemistry-II/ Biology (L-T-P: 3-0-2)</li><li>6. Introduction to Electronics (L-T-P: 2-0-2)</li></ol> <p><b>Total credit: 19</b></p>
<p><b>3rd Sem</b></p> <ol style="list-style-type: none"><li>1. Digital Logic and Systems Design (L-T-P: 3-0-2)</li><li>2. Engineering Foundation-III (Artificial Intelligence) (L-T-P: 3-0-0)</li><li>3. Humanities and Social Sciences (L-T-P: 2-0-0)</li><li>4. Linear Algebra (L-T-P: 3-1-0)</li><li>5. Network Analysis &amp; Synthesis (L-T-P: 3-0-2)</li><li>6. Semiconductor Devices &amp; Synthesis (L-T-P: 3-0-2)</li></ol> <p><b>Total Credits: 21</b></p>	<p><b>4th Sem</b></p> <ol style="list-style-type: none"><li>1. Computer Architecture (L-T-P: 3-0-2)</li><li>2. Professional Practice &amp; Ethics (L-T-P: 1-0-2)</li><li>3. Signal and Systems (L-T-P: 3-0-2)</li><li>4. Engineering Foundation-IV Numerical Methods (L-T-P: 3-0-2)</li><li>5. Engineering Foundation -V Analog Electronics (L-T-P: 3-1-0)</li><li>6. Principal of Communications (BE1) (L-T-P: 3-0-2)</li><li>7. Optional Course</li></ol> <p><b>Total Credits: 20</b></p>

<p><b>5th Sem</b></p> <ol style="list-style-type: none"> <li>1. Principle of Communication (L-T-P: 4-0-0)</li> <li>2. EMFT (L-T-P: 4-0-0)</li> <li>3. Control Systems (BE2) (L-T-P: 3-0-2)</li> <li>4. Digital Signal Processing (L-T-P: 3-0-2)</li> <li>5. Microprocessors (L-T-P: 3-0-2)</li> <li>6. Optional Course *</li> </ol> <p><b>Total Credits: 20</b></p>	<p><b>6th Sem</b></p> <ol style="list-style-type: none"> <li>1. Introduction to VLSI design (L-T-P: 3-0-2)</li> <li>2. Technical Writing (L-T-P: 2-0-0)</li> <li>3. Antenna and Wave Propagation (BE3) (L-T-P: 4-0-0)</li> <li>4. Microwave Devices and Circuits (L-T-P: 3-0-2)</li> <li>5. Wireless Communication (L-T-P: 3-0-2)</li> <li>6. Project Oriented Course/Independent Study (L-T-P: 3-0-0)</li> <li>7. Optional Course*</li> </ol> <p><b>Total Credits: 19</b></p>
<p><b>7th Sem</b></p> <ol style="list-style-type: none"> <li>1. Project (Engineering Specific) (Credits: 6)</li> <li>2. Fibre Optic Communication/Embedded Systems (BE4) (L-T-P:3-0-2/L-T-P: 4-0-0)</li> <li>3. Master Core 1 (L-T-P: 3-0-0)</li> <li>4. Mater Core 2 (L-T-P: 3-0-0)</li> <li>5. Master Specialization 1 (L-T-P: 3-0-2)</li> </ol> <p><b>Total Credits: 19</b></p>	<p><b>8th Sem</b></p> <p>See the table below for MS/M.Tech</p> <p><b>Total credits: 15</b></p>

<b>9th Sem</b>	<b>10<sup>th</sup> Sem</b>
See the table below MS/M.Tech	See the table below MS/M.Tech
<b>Total credits: 15</b>	<b>Total credits: 15</b>

Semester	Coursework for SoE Program for M.Tech (CSE/ RF/VLSI) (45 credits)
8 <sup>th</sup>	Project/Independent Study 3 Credits Master Specialization- II 3 Credits Master Specialization- III 3 Credits Master Specialization- IV 3 Credits Master Specialization- V 3 Credits  Total 15 Credits
9 <sup>th</sup>	Dissertation On-campus /in-Industry (Credits: 15)*
10 <sup>th</sup>	Dissertation On-campus /in-Industry (Credits: 15)* Student needs to find a qualified Industry option himself/herself for the dissertation at industry. <i>Dean SoE/Project coordinator needs to approve the Dissertation at Industry based on the Company profile and the work profile given to the student. Only after approval student is allowed to go for industry dissertation.</i>  <i>The choice of student in 9<sup>th</sup> semester will continue in 10<sup>th</sup> semester for the dissertation place (Academia or Industry).</i>

Semester	Coursework for M.S. and other Program offered by a School/Center in JNU (45 credits)
8 <sup>th</sup>	Master Specialization- II 3 Credits Master Specialization- III 3 Credits Master Specialization- IV 3 Credits Master Specialization- V 3 Credits Master Specialization-VI 3 Credits

	Total 15 Credits
9 <sup>th</sup>	Master Specialization-VII 3 Credits Master Specialization-VIII 3 Credits Dissertation 9 Credits  Total 15 Credits
10 <sup>th</sup>	Dissertation (15 credits)