<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>01205211**</td>
<td>Electric Circuit Analysis I</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td></td>
<td>Definitions. Basic concepts and units.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Circuit elements. Resistive circuits.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dependent sources. Circuit theorem and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>analysis. Network theorem. Graph theory.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Energy storage elements. First order</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and second order circuits. Sinusoidal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>signal. Phasor diagram. Alternating</td>
<td></td>
</tr>
<tr>
<td></td>
<td>current steady-state analysis. AC power</td>
<td></td>
</tr>
<tr>
<td></td>
<td>circuits. Three-phase circuits.</td>
<td></td>
</tr>
<tr>
<td>01205212**</td>
<td>Electric Circuit Analysis II</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>01205211</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complex frequency and s-plane analysis.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Network function. Frequency response.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laplace transformation and its application to circuit analysis.</td>
<td></td>
</tr>
<tr>
<td>01205213</td>
<td>Electric Circuit Laboratory</td>
<td>1(0-3-2)</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>01205211</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Laboratory experiments on topics covered in Electrical Circuit Analysis I.</td>
<td></td>
</tr>
<tr>
<td>01205216</td>
<td>Computer Programming for Electrical Engineers</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>01205217**</td>
<td>Electrical Engineering Mathematics</td>
<td>3(3-0-6)</td>
</tr>
<tr>
<td>Prerequisite:</td>
<td>01417168</td>
<td></td>
</tr>
<tr>
<td>01205221**</td>
<td>Telecommunication Engineering</td>
<td>3(3-0-6)</td>
</tr>
</tbody>
</table>
Data communications

01205231** Electronic Circuits and Systems I 3(3-0-6)
Prerequisite: 01205211

01205232 Digital Circuits and Logic Design 3(3-0-6)

01205251 Electromechanical Energy Conversion I 3(3-0-6)
Prerequisite: 01205211

01205252* Introduction to Electric Power Systems 3(3-0-6)
Prerequisite: 01205211

01205291 Electrical Practice 1(0-3-2)
Workshop practice in basic electrical equipment and in wiring installation.
01205311** Signals and Systems 3(3-0-6)
Prerequisite: 01205212 or together

01205312** Applied Probability for Electrical Engineers 3(3-0-6)
Prerequisite: 01417168

01205314 Digital Signal Processing 3(3-0-6)

01205321** Principles of Communications 3(3-0-6)
Prerequisite: 01205311 and 01205312

01205327** Data Communications and Networks I 3(3-0-6)
flow controls. Data security.

01205332  Electronics Laboratory  1(0-3-2)
Prerequisite : 01205231
Laboratory experiments on topics covered in Electronic Circuits and Systems I.

01205335**  Microprocessor  3(3-0-6)
Prerequisite : 01205232

01205341**  Electromagnetic Fields and Waves I  3(3-0-6)
Prerequisite : 01417267

01205344**  Microwave Engineering  3(3-0-6)
Prerequisite : 01205341

01205352  Electromechanical Energy Conversion Laboratory I  1(0-3-2)
Prerequisite : 01205251
Laboratory experiments on topics in Electromechanical Energy Conversion I and parts of Electromechanical Energy Conversion II and other related topics.

01205361**  Electrical Measurements and Instruments  3(3-0-6)
Prerequisite : 01205231
Units and standards of electrical measurements. Instrument classifications and characteristics. Measurement analysis. Measurement of

01205362** Linear Control Systems 3(3-0-6)
Prerequisite: 01205212

01205399* Internship 1
Internship for Electrical Engineering in private enterprises, government agencies, government enterprises or academic places at least 240 hours and at least 30 workdays in order to get experiences from the assignment.

01205425 Visual Communications 3(3-0-6)
Prerequisite: 01205321

01205426** Digital Communications 3(3-0-6)
Prerequisite: 01205321

01205428 Wireless Communications 3(3-0-6)
Prerequisite: 01205321
01205429  Satellite Communications  3(3-0-6)  
Prerequisite: 01205321  

01205442**  Antenna Engineering  3(3-0-6)  
Prerequisite: 01205341  

01205447**  Optical Fiber Communications  3(3-0-6)  
Prerequisite: 01205321 and 01205341  

01205491  Electrical Engineering Project I  1(0-3-2)  
Select and prepare interesting project in electrical engineering.

01205497  Seminar  1  
Presentation and discussion on current interesting topics in electrical engineering at the bachelor’s degree level.

01205499  Electrical Engineering Project II  2(0-6-3)  
Prerequisite: 01205491  
Continuing the same project as in electrical engineering project I.