### Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPE 508</td>
<td>Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>CPE 512</td>
<td>Computer Architecture</td>
<td>3</td>
</tr>
<tr>
<td>CPE 515</td>
<td>Advanced Logic Design</td>
<td>3</td>
</tr>
<tr>
<td>CPE 541</td>
<td>Computer Networks</td>
<td>3</td>
</tr>
</tbody>
</table>

### Elective Courses

- CPE 500 Software Engineering (3 Hours)
- CPE 505 Analysis of Algorithms (3 Hours)
- CPE 520 Advanced Engineering Analysis I. (3 Hours)
- CPE 521 Advanced Engineering Analysis II. (3 Hours)
- CPE 530 VLSI Design (3 Hours)
- CPE 531 VLSI Testing and Design for Testability (3 Hours)
- CPE 532 Digital Integrated Circuit Design (3 Hours)
- CPE 533 Fault-Tolerant Computing Systems (3 Hours)
- CPE 547 Modeling and Analysis of Computer and Communication Systems (3 Hours)
- CPE 552 Computer Vision (3 Hours)
- CPE 555 Control Systems (3 Hours)
- CPE 557 Robotics (3 Hours)
- CPE 560 Embedded Design with Microprocessors (3 Hours)
- CPE 601 Code Optimizations (3 Hours)
- CPE 610 Parallel Computing and Programming (3 Hours)
- CPE 611 Computer Arithmetic (3 Hours)
- CPE 630 Design Automation of VLSI Systems (3 Hours)
- CPE 640 Computer Security (3 Hours)
- CPE 641 Advanced Computer Networks (3 Hours)
- CPE 642 Computer Network Security (3 Hours)
- CPE 655 Advanced Control Systems (3 Hours)
- CPE 693 Advanced Topics in Engineering. (Variable 1 to 4 Hours)
- CPE 695 Scientific Writing Seminar (1 Hour)
- CPE 696 Seminar (1 Hour)
- CPE 697 Internship (1-3 Hours)
- CPE 698 Independent Study (1-4 hours)
- CPE 699 Thesis Research (1-6 Hours)