**POKHARA UNIVERSITY**

**Bachelor of Computer Engineering**

**Curricular Structure (Revised, 2011)**

The Bachelor of Computer Engineering program is designed to produce high quality computer engineers. It is a four-year program spread over eight semesters. A student needs to successful complete 137 credit hours of course work, practical and project work for graduation.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Semester I** |  |  |  | **Semester II** |  |
| **Course**  **Code** | **Course Description** | **Credit**  **Hours** |  | **Course**  **Code** | **Course Description** | **Credit**  **Hours** |
| MTH 112 | Engineering Mathematics I | 3 |  | MTH 114 | Engineering Mathematics II | 3 |
| CHM 111 | Chemistry | 4 |  | PHY 111 | Physics | 4 |
| ENG 111 | Communication Techniques | 2 |  | MEC 120 | Engineering Drawing | 2 |
| CMP 113 | Programming in C | 3 |  | CMP 115 | Object Oriented Programming in C++ | 3 |
| ELE 110 | Basic Electrical Engineering | 3 |  | MEC 111 | Thermal Science | 2 |
| MEC 110 | Mechanical Workshop | 1 |  | MEC 130 | Applied Mechanics I | 3 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Semester III |  |  |  | Semester IV |  |
| Course  Code | Course Description | Credit  Hours |  | Course  Code | Course Description | Credit  Hours |
| MTH 212 | Engineering Mathematics III | 3 |  | MTH 214 | Engineering Mathematics IV | 3 |
| CMP 225 | Data Structure and Algorithms | 3 |  | ELX 231 | Instrumentation | 3 |
| ELE 210 | Electrical Engineering Materials | 2 |  | CMP 226 | Database Management Systems | 3 |
| ELE 211 | Network Theory | 3 |  | CMP 211 | Programming Technology | 3 |
| ELX 211 | Electronics Devices and Circuits | 3 |  | ELX 230 | Microprocessors | 3 |
| ELX 212 | Logic Circuits | 3 |  | CMP 290 | Project I | 1 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Semester V |  |  |  | Semester VI |  |
| Course  Code | Course Description | Credit  Hours |  | Course  Code | Course Description | Credit  Hours |
| MTH 230 | Numerical Methods | 3 |  | CMP 350 | Simulation and Modeling | 3 |
| MTH 220 | Probability and Statistics | 3 |  | CMM 340 | Data Communication | 3 |
| CMP 330 | Operating Systems | 3 |  | CMP 320 | Object Oriented Software Engineering | 3 |
| CMP 332 | Computer Architecture | 3 |  | ELX 312 | Embedded Systems | 3 |
| CMP 241 | Computer Graphics | 3 |  | --- | Elective I | 3 |
| CMP 326 | Theory of Computation | 3 |  | CMP 390 | Project II | 2 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Semester VII |  |  |  | Semester VIII |  |
| Course  Code | Course Description | Credit  Hours |  | Course  Code | Course Description | Credit  Hours |
| ECO 411 | Engineering Economics | 3 |  | CMM 442 | Digital Signal Analysis and Processing | 3 |
| CMP 441 | Image Processing & Pattern Recognition | 3 |  | CMP 484 | Social and Professional Issues in IT | 2 |
| CMP 455 | Artificial Intelligence | 3 |  | MGT 321 | Organization and Management | 2 |
| CMP 335 | Computer Networks | 3 |  | CMP 481 | Information Systems | 3 |
| CMP 483 | ICT Project Management | 3 |  | --- | Elective III | 3 |
| \_\_\_ --- | Elective II | 3 |  | CMP 490 | Project III | 5 |