# Pokhara University
## Bachelor of Computer Engineering
## Curriculum Structure- 2022

| S. N. | Course Code | Subject | Credit | L | T | P | Remarks |
|---|---|---|---|---|---|---|---|
| **Year** | **I** | **Semester I** | | | | | |
| 1 | MTH 110 | Calculus I | 3 | 3 | 2 | 0 | |
| 2 | ELX 110 | Digital Logic | 3 | 3 | 1 | 2 | |
| 3 | CMP 124 | Programming in C | 3 | 3 | 1 | 3 | |
| 4 | ELE 120 | Basic Electrical Engineering | 3 | 3 | 2 | 2 | |
| 5 | CMP 122 | Computer Workshop | 1 | 0 | 0 | 3 | |
| 6 | ENG 110 | Communication Technique | 2 | 2 | 1 | 0 | |
| 7 | ELX 120 | Electronics Devices and Circuits | 3 | 3 | 2 | 2 | |
| | | **Sub-total** | **18** | **17** | **9** | **12** | |
| **Year** | **I** | **Semester II** | | | | | |
| 1 | MTH 150 | Algebra and Geometry | 3 | 3 | 2 | 0 | |
| 2 | PHY 110 | Applied Physics | 3 | 3 | 2 | 2 | |
| 3 | CHM 110 | Applied Chemistry | 2 | 2 | 1 | 2 | |
| 4 | MEC 116 | Basic Engineering Drawing | 1 | 0 | 0 | 3 | |
| 5 | CMP 162 | Object Oriented Programming in C++ | 3 | 3 | 1 | 3 | |
| 6 | CMP 160 | Data Structure and Algorithm | 3 | 3 | 1 | 3 | |
| 7 | ELE 172 | Instrumentation | 3 | 3 | 1 | 2 | |
| | | **Sub-total** | **18** | **17** | **8** | **15** | |
| **Year** | **II** | **Semester III** | | | | | |
| 1 | MTH 210 | Calculus II | 3 | 3 | 2 | 0 | |
| 2 | CMP 222 | Database Management System | 3 | 3 | 1 | 3 | |
| 3 | CMP 232 | Operating Systems | 3 | 3 | 1 | 2 | |
| 4 | CMP 224 | Microprocessor and Assembly Language Programming | 3 | 3 | 1 | 2 | |
| 5 | CMP 234 | Computer Graphics | 3 | 3 | 1 | 2 | |
| 6 | CMM 220 | Data Communication | 3 | 3 | 1 | 2 | |
| | | **Sub-total** | **18** | **18** | **7** | **11** | |
| **Year** | **II** | **Semester IV** | | | | | |
| 1 | MTH 250 | Applied Mathematics | 3 | 3 | 2 | 0 | |
| 2 | MTH 252 | Numerical Methods | 2 | 2 | 1 | 2 | |
| 3 | CMP 228 | Advanced Programming with Java | 3 | 3 | 1 | 3 | |
| 4 | CMP 264 | Theory of Computation | 3 | 3 | 1 | 0 | |
| 5 | CMP 262 | Computer Architecture | 3 | 3 | 1 | 1 | |
| 6 | CMP 270 | Research Fundamentals | 2 | 2 | 0 | 2 | |
| | | **Sub-total** | **16** | **16** | **6** | **8** | |
| **Year** | **III** | **Semester V** | | | | | |
| 1 | MTH 216 | Probability and Statistics | 3 | 3 | 2 | 0 | |
| 2 | ELX 320 | Embedded System | 2 | 2 | 1 | 3 | |
| 3 | MGT 320 | Engineering Management | 2 | 2 | 1 | 0 | |
| 4 | CMP 346 | Artificial Intelligence | 3 | 3 | 1 | 3 | |
| 5 | CMM 344 | Digital Signal Analysis and Processing | 3 | 3 | 1 | 2 | |
| 6 | CMP 348 | Software Engineering | 3 | 3 | 1 | 2 | |
| | | **Sub-total** | **16** | **16** | **7** | **10** | |
| **Year** | **III** | **Semester VI** | | | | | |
| 1 | CMP 362 | Image Processing and Pattern Recognition | 3 | 3 | 1 | 2 | |
| 2 | CMP 364 | Machine Learning | 3 | 2 | 1 | 3 | |
| 3 | CMP 360 | Data Science and Analytics | 2 | 2 | 1 | 2 | |
| 4 | CMP 344 | Computer Networks | 3 | 3 | 1 | 2 | |
| 5 | CMP 338 | Simulation and Modeling | 3 | 3 | 1 | 2 | |
| 6 | | Elective I | 3 | 3 | 1 | 2 | |
| 7 | PRJ 360 | Project I | 1 | 0 | 0 | 4 | |
| | | **Sub-total** | **18** | **16** | **6** | **17** | |
| **Year** | **IV** | **Semester VII** | | | | | |
| 1 | MGT 332 | Entrepreneurship and Professional Practice | 2 | 2 | 1 | 0 | |
| 2 | MGT 250 | Engineering Economics | 3 | 3 | 2 | 0 | |
| 3 | CMP 426 | Network and Cyber Security | 3 | 3 | 1 | 2 | |
| 4 | CMP 424 | Cloud Computing and Virtualization | 2 | 2 | 2 | 2 | |
| 5 | CMP 422 | Compiler Design | 2 | 2 | 2 | 2 | |
| 6 | | Elective II | 3 | 3 | 1 | 2 | |
| | | **Sub-total** | **15** | **15** | **9** | **8** | |
| **Year** | **IV** | **Semester VIII** | | | | | |
| 1 | | Elective III | 3 | 3 | 1 | 2 | |
| 2 | INT 492 | Internship | 3 | 0 | 0 | 6 | |
| 3 | PRJ 452 | Project II | 3 | 0 | 0 | 6 | |
| | | **Sub-total** | **9** | **3** | **1** | **14** | |
| | | **Total Credits** | **129** | | | | |