

AY2020-2021 CURRICULUM FOR COMPUTER ENGINEERING

Last Updated : 16-Oct-21

| SUMMARY OF ACADEMIC UNIT REQUIREMENT | | | | | | | | |
|--------------------------------------|-------|-----|-------------------------------------|---------|-------|--------|----|------------|
| Year of Study | Major | | General education Requirement (GER) | | | | UE | Total AU |
| | Core | MPE | Core | PE - BM | PE-LA | PE-STs | | |
| 1 | 26 | 0 | 12 | 0 | 3 | 0 | 0 | 41 |
| 2 | 27 | 0 | 0 | 0 | 0 | 3 | 6 | 36 |
| 3 | 23 | 0 | 2 | 3 | 0 | 0 | 3 | 31 |
| 4 | 8 | 18 | 0 | 0 | 0 | 0 | 6 | 32 |
| Total | 84 | 18 | 14 | | 9 | | 15 | 140 |

Suggested Study Plan

| YEAR 1 SEMESTER 1 | | | | |
|-------------------|---|----------|----|------------------------------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| MH1810 | Mathematics I | C | 3 | Nil |
| CE1103 | Introduction to Computational Thinking & Programming | C | 3 | Nil |
| CE1105 | Digital Logic (Engineering Fundamentals 1) | C | 3 | Nil |
| CE1113 | Physics for Computing | C | 2 | Nil |
| EG0001 | Engineers and Society | GER-Core | 3 | Nil |
| HW0111 | Communication: A Journey of Inquiry through Writing and Speed | GER-Core | 2 | HW0001 (can be taken concurrently) |
| GC0001 | Sustainability : Seeing Through the Haze | GER-Core | 1 | online course |
| HY0001 | Ethics and Moral Reasoning | GER-Core | 1 | online course |
| | GER-PE: Liberal Arts | GER-PE | 3 | |
| HW0001 | Introduction to Academic Communication | GER-Core | 0 | |
| | | | 21 | |

| YEAR 1 SEMESTER 2 | | | | |
|-------------------|--|----------|----|-----------------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CE1104 | Linear Algebra for Computing | C | 3 | MH1810 |
| CE1106 | Computer Organisation and Architecture | C | 3 | CE1105 (co-requisite) |
| CE1107 | Data Structures and Algorithms | C | 3 | CE1103 |
| MH1812 | Discrete Mathematics | C | 3 | Nil |
| | Engineering Fundamentals 2 | C | 3 | Nil |
| CE1115 | Introduction to Data Science and Artificial Intelligence | GER-Core | 3 | CE1103 |
| ET0001 | Enterprise & Innovation | GER-Core | 1 | online course |
| ML0003 | Kickstart your Career Success | GER-Core | 1 | online course |
| | | | 20 | |

| YEAR 2 SEMESTER 1 | | | | |
|-------------------|--|------|----|-----------------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CE2100 | Probability and Statistics for Computing | C | 3 | MH1810 |
| CE2101 | Algorithm Design and Analysis | C | 3 | CE1107, MH1812 |
| CE2002 | Object Oriented Design & Programming | C | 3 | CE1103 |
| CE2006 | Software Engineering | C | 3 | CE2002 (co-requisite) |
| CE2005 | Operating Systems | C | 3 | CE1106, CE1107 |
| CE2107 | Microprocessor System Design and Development | C | 3 | CE1106 |
| | | | 18 | |

| YEAR 2 SEMESTER 2 | | | | |
|-------------------|--------------------------------|---------|-----------|----------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CE2003 | Digital Systems Design | C | 3 | CE1105 |
| CE3005 | Computing Networks | C | 3 | CE1104, CE2100 |
| CE3103 | Embedded Programming | C | 3 | CE2107 |
| CE3001 | Advanced Computer Architecture | C | 3 | CE1106 |
| | GER-PE: Science & Technology | GER- PE | 3 | |
| | Unrestricted Elective 1 | UE | 3 | |
| | | | 18 | |

| YEAR 3 SEMESTER 1 | | | | |
|-------------------|--|----------|-----------|-------------------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| | Unrestricted Elective 2 | UE | 3 | |
| CE3002 | Sensors, Interfacing & Digital Control | C | 3 | CE1106 |
| CE3102 | Signal, Systems and Transform | C | 3 | CE1104 |
| CE3004 | Multidisciplinary Design Project | C | 4 | Year 3 standing |
| HW0288 | Engineering Communication | GER-Core | 2 | HW0111, Year 3 standing |
| | GER-PE: Business & Management | GER-PE | 3 | |
| | Unrestricted Elective 3 | UE | 3 | |
| | | | 21 | |

| YEAR 3 SEMESTER 2 | | | | |
|-------------------|-------------------------|------|-----------|----------------------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CE3179 | Professional Internship | C | 10 | ML0003, Year 3 standing |
| | | | 10 | |

| YEAR 4 SEMESTER 1 | | | | |
|-------------------|--|------|-----------|---------------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CE4079 | Final Year Project (Continue in next semester) | C | 4 | Final year standing |
| CE4XXX | CE Prescribed Elective 1 | MPE | 3 | Year 3 standing, |
| CE4XXX | CE Prescribed Elective 2 | MPE | 3 | Year 3 standing, |
| CE4XXX | CE Prescribed Elective 3 | MPE | 3 | Year 3 standing, |
| | Unrestricted Elective 4 | UE | 3 | |
| | | | 16 | |

| YEAR 4 SEMESTER 2 | | | | |
|-------------------|--|------|-----------|---------------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CE4079 | Final Year Project (Continue from previous semester) | C | 4 | Final year standing |
| CE4XXX | CE Prescribed Elective 4 | MPE | 3 | Year 3 standing, |
| CE4XXX | CE Prescribed Elective 5 | MPE | 3 | Year 3 standing, |
| CE4XXX | CE Prescribed Elective 6 | MPE | 3 | Year 3 standing, |
| | Unrestricted Elective 5 | UE | 3 | |
| | | | 16 | |