

**AY2023-24 CURRICULUM FOR BACHELOR OF ENGINEERING (CIVIL) &
BACHELOR OF SOC SCI (ECONOMICS) WITH PROFESSIONAL INTERNSHIP
(FIRST YEAR ADMISSION)**

Last Updated : 22-Feb-23

| SUMMARY OF ACADEMIC UNIT REQUIREMENT | | | | | | |
|--------------------------------------|------------|-----------|-----------|-----------|----------|------------|
| Year of Study | Core | MPE | CC | FC | BDE | Total AU |
| 1 | 34 | 0 | 9 | 0 | 0 | 43 |
| 2 | 24 | 3 | 8 | 3 | 0 | 38 |
| 3 | 17 | 0 | 0 | 12 | 0 | 29 |
| 4 | 18 | 15 | 0 | 0 | 0 | 33 |
| 5 | 8 | 18 | 0 | 0 | 3 | 29 |
| Total | 101 | 36 | 17 | 15 | 3 | 172 |

* Students without 'A' Level Physics will take 'PH1012 Physics A' (4AU).

| YEAR 1 SEMESTER 1 | | | | |
|-------------------|--|------|-----------|---------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| MH1810 | Mathematics 1 | C | 3 | |
| PH1011 | Physics* | C | 3 | |
| FE1073 | An Introduction to Engineering & Practices | C | 1 | |
| CV1011 | Mechanics of Materials | C | 4 | |
| CV1012 | Fluid Mechanics | C | 3 | |
| HE1001 | Microeconomics I | C | 3 | |
| CC0001 | Inquiry and Communication in the Interdisciplinary World | CC | 2 | |
| CC0002 | Navigating the Digital World | CC | 2 | |
| | | | 21 | |

| YEAR 1 SEMESTER 2 | | | | |
|-------------------|---|------|-----------|---------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| MH1811 | Mathematics 2 | C | 3 | MH1810 |
| CV1013 | Civil Engineering Materials | C | 3 | |
| CV1014 | Introduction To Computational Thinking | C | 3 | |
| CV2020 | Water Resources Engineering | C | 3 | CV1012 |
| EG1001 | Engineers In Society | C | 2 | |
| HE2001 | Microeconomics II | C | 3 | HE1001 |
| CC0003 | Ethics & Civics in a Multi-Cultural World | CC | 2 | |
| CC0005 | Healthy Living & Wellbeing | CC | 3 | |
| | | | 22 | |

| YEAR 2 SEMESTER 1 | | | | |
|-------------------|---|------|-----------|---------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CV2011 | Structural Analysis I | C | 3 | CV1011 |
| CV2013 | Engineering Geology & Soil Mechanics | C | 3 | |
| CV2711 | Civil Engineering Laboratory A | C | 1 | |
| HE1002 | Macroeconomics I | C | 3 | |
| CV0003 | Introduction to Data Science and Artificial Intelligence | FC | 3 | CV1014 |
| CC0006 | Sustainability: Society, Economy & Environment | CC | 3 | |
| ML0004 | Career and Entrepreneurial Development for the Future World | CC | 2 | |
| | | | 18 | |

| YEAR 2 SEMESTER 2 | | | | |
|-------------------|---|------|-----------|---------------|
| Course Code | Course Title | Type | AU | Pre-Requisite |
| CV1711 | Engineering Drawing and 3D Building Information Modelling | C | 1 | |
| CV2012 | Structural Analysis II | C | 3 | CV2011 |
| CV2014 | Geotechnical Engineering | C | 3 | CV2013 |
| CV2019 | Matrix Algebra & Computational Methods | C | 3 | |
| CV2712 | Civil Engineering Laboratory B | C | 1 | |
| HE2002 | Macroeconomics II | C | 3 | HE1002 |
| MH1820 | Introduction to Probability and Statistical Methods | MPE | 3 | Compulsory |
| CC0007 | Science & Technology for Humanity | CC | 3 | |
| | | | 20 | |

YEAR 3 SEMESTER 1

| Course Code | Course Title | Type | AU | Pre-Requisite |
|-------------|----------------------------|------|-----------|-----------------|
| CV3011 | Reinforced Concrete Design | C | 3 | CV2011 |
| CV3013 | Foundation Engineering | C | 3 | CV2013 & CV2014 |
| CV3014 | Transportation Engineering | C | 3 | |
| CV3017 | Urban Water Circularity | C | 2 | CV1012 |
| HE2003 | Econometrics I | C | 3 | MH1820 |
| HE3001 | Microeconomics III | C | 3 | HE2001 |
| HW0288 | Engineering Communication | FC | 2 | CC0001 |
| | | | 19 | |

YEAR 3 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-Requisite |
|-------------|-------------------------|------|-----------|---|
| CV3914 | Professional Internship | FC | 10 | Year 3 standing & completed at least 4 semesters of study |
| | | | 10 | |

YEAR 4 SEMESTER 1

| Course Code | Course Title | Type | AU | Pre-Requisite |
|-------------|-------------------------------|------|-----------|-------------------|
| CV4012 | Project Planning & Management | C | 2 | Year 4 Standing |
| CV4711 | Seminars & Site Visits | C | 1 | |
| HE3002 | Macroeconomics III | C | 3 | HE2002 |
| CV4XXX | Major Prescribed Elective | MPE | 3 | Refer to Syllabus |
| | Econs PE 1 | MPE | 3 | |
| | Econs PE 2 | MPE | 3 | |
| | Econs PE 3 | MPE | 3 | |
| | | | 18 | |

YEAR 4 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-Requisite |
|-------------|-------------------------------------|------|-----------|-----------------|
| CV3012 | Steel Design | C | 3 | CV2011 |
| CV3016 | Construction Technology & Processes | C | 3 | |
| CV4912 | Integrated Design Project | C | 3 | Year 4 Standing |
| HE3003 | Econometrics II | C | 3 | HE2003 |
| | Econs PE 4 | MPE | 3 | |
| | | | 15 | |

YEAR 5 SEMESTER 1

| Course Code | Course Title | Type | AU | Pre-Requisite |
|-------------|--------------------|------|-----------|-----------------|
| CV4911 | Final Year Project | C | 4 | Year 4 Standing |
| | Econs PE 5 | MPE | 3 | |
| | Econs PE 6 | MPE | 3 | |
| | Econs PE 7 | MPE | 4 | |
| | | | 14 | |

YEAR 5 SEMESTER 2

| Course Code | Course Title | Type | AU | Pre-Requisite |
|-------------|------------------------------------|------|-----------|-----------------|
| CV4911 | Final Year Project | C | 4 | Year 4 Standing |
| | Econs PE 8 | MPE | 4 | |
| | Econs PE 9 | MPE | 4 | |
| | Broadening & Deepening Electives 1 | BDE | 3 | |
| | | | 15 | |

Total AU for Graduation : **172**