AY2024-25 CURRICULUM FOR BACHELOR OF ENGINEERING (ENVIRONMENTAL ENGINEERING) WITH SECOND MAJOR IN SOCIETY & URBAN SYSTEMS - PROFESSIONAL ATTACHMENT (FIRST YEAR ADMISSION)

| Last Updated : | 4-Jul-24 |
|----------------|----------|
|----------------|----------|

| | SUMMARY OF ACADEMIC UNIT REQUIREMENT | | | | | | |
|---------------|--------------------------------------|---|----|----|----|-----|--|
| Year of Study | Year of Study Core MPE CC FC | | | | | | |
| 1 | 26 | 0 | 9 | 0 | 3 | 38 | |
| 2 | 23 | 0 | 8 | 0 | 9 | 40 | |
| 3 | 12 | 3 | 0 | 10 | 15 | 40 | |
| 4 | 19 | 0 | 0 | 0 | 8 | 27 | |
| Total | 80 | 3 | 17 | 10 | 35 | 145 | |

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

| YEAR 1 SEMESTER 1 | | | | |
|--------------------|--|------|----|---------------|
| Course Code | Course Title | Туре | AU | Pre-Requisite |
| MH1810 | Mathematics 1 | С | 3 | |
| PH1011 | Physics* | С | 3 | |
| FE1073 | An Introduction to Engineering & Practices | С | 1 | |
| CV1011 | Mechanics of Materials | С | 4 | |
| CV1012 | Fluid Mechanics | С | 3 | |
| HE9091 | Principles of Economics | BDE | 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 | Туре | AU | Pre-Requisite |
| MH1811 | Mathematics 2 | С | 3 | MH1810 |
| CV1014 | Introduction To Computational Thinking | С | 3 | |
| CV1711 | Engineering Drawing and 3D Building Information Modelling | С | 1 | |
| CV2020 | Water Resources Engineering | С | 3 | CV1012 |
| EG1001 | Engineers In Society | С | 2 | |
| CC0003 | Ethics & Civics in a Multi-Cultural World | CC | 2 | |
| CC0005 | Healthy Living & Wellbeing | CC | 3 | |
| | | | 17 | |

| YEAR 2 SEMESTER 1 | | | | |
|--------------------|---|------|----|---------------|
| Course Code | Course Title | Туре | AU | Pre-Requisite |
| EN1001 | Environmental Chemistry | С | 3 | |
| EN2004 | Soil Environment and Soil Mechanics | С | 3 | |
| EN2711 | Environmental Engineering Laboratory A | С | 1 | |
| MH2814 | Probability & Statistics | С | 3 | MH1810 |
| | Urban Economics & Public Policy 1 | BDE | 3 | HE9091 |
| 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 | Туре | AU | Pre-Requisite |
| EN2002 | Environmental Biology and Microbiology | С | 3 | |
| EN2003 | Water Supply Engineering | С | 3 | CV1012 |
| EN2005 | Environmental Health and Safety Management | С | 3 | |
| EN2712 | Environmental Engineering Laboratory B | С | 1 | |
| EN3003 | Environmental Transport Processes | С | 3 | |

ENG 1

| SU2001 | Urban Planning & Design | BDE | 3 | |
|--------|-----------------------------------|-----|----|--|
| | Society and Culture 1 | BDE | 3 | |
| CC0007 | Science & Technology for Humanity | CC | 3 | |
| | | | 22 | |

| | YEAR 3 SEMESTER 1 | | | | |
|--------------------|--|------|----|-----------------|--|
| Course Code | Course Title | Туре | AU | Pre-Requisite | |
| EN3001 | Solid & Hazardous Waste Management | С | 3 | Year 3 Standing | |
| EN3002 | Wastewater Engineering | С | 3 | Year 3 Standing | |
| EN3004 | Air Pollution Control Engineering | С | 3 | Year 3 Standing | |
| EN3006 | Energy Resource Engineering | С | 3 | | |
| CV0003 | Introduction to Data Science and Artificial Intelligence | FC | 3 | CV1014 | |
| HW0288 | Engineering Communication | FC | 2 | CC0001 | |
| SU3001 | Integrated Urban Management | BDE | 3 | | |
| | | | 20 | | |

| YEAR 3 SEMESTER 2 | | | | |
|--------------------|-------------------------------------|------|----|-------------------|
| Course Code | Course Title | Туре | AU | Pre-Requisite |
| EN4XXX | Major Prescribed Elective | MPE | 3 | Refer to Syllabus |
| SU4001 | Leaders in Urban Systems and Policy | BDE | 3 | |
| | Urban Economics & Public Policy 2 | BDE | 3 | HE9091 |
| | Society and Culture 2 | BDE | 3 | |
| | Broadening & Deepening Electives 1 | BDE | 3 | |
| | | | 15 | |

| | YEAR 3 SPECIAL SEMESTER | | | |
|--------------------|-------------------------|------|----|----------------------|
| Course Code | Course Title | Туре | AU | Pre-Requisite |
| EN3910 | Professional Attachment | FC | 5 | Year 3 standing & |
| | | | | completed at least 4 |
| | | | | semesters of study |
| | | | 5 | |

| YEAR 4 SEMESTER 1 | | | | |
|--------------------|--|------|----|-----------------|
| Course Code | Course Title | Туре | AU | Pre-Requisite |
| CV4012 | Project Planning & Management | С | 2 | Year 4 Standing |
| EN4001 | Environmental Impact Analysis & Monitoring | С | 3 | |
| EN4711 | Seminars & Site Visits | С | 1 | |
| EN4911 | Final Year Project | С | 4 | Year 4 Standing |
| | Broadening & Deepening Electives 2 | BDE | 2 | |
| | | | 12 | |

| | YEAR 4 SEMESTER 2 | | | | | |
|--------------------|--------------------------------------|------|----|-----------------|--|--|
| Course Code | Course Title | Туре | AU | Pre-Requisite | | |
| EN4003 | Environmental Systems Analysis | С | 2 | | | |
| EN4911 | Final Year Project | С | 4 | Year 4 Standing | | |
| EN4912 | Integrated Design Project | С | 3 | Year 4 Standing | | |
| | Urban Economics & Public Policy 2 | BDE | 3 | HE9091 | | |
| | Water and Environmental Management 1 | BDE | 3 | | | |
| | | | 15 | | | |

Total AU for Graduation : 145

ENG 2