## AY2023-24 CURRICULUM FOR BACHELOR OF ENGINEERING (ENVIRONMENTAL ENGINEERING) WITH SECOND MAJOR IN ENTREPRENEURSHIP - PROFESSIONAL INTERNSHIP (FIRST YEAR ADMISSION)

|                                      |      |     |    |    | 22-Feb-23 |          |  |  |  |
|--------------------------------------|------|-----|----|----|-----------|----------|--|--|--|
| SUMMARY OF ACADEMIC UNIT REQUIREMENT |      |     |    |    |           |          |  |  |  |
| Year of Study                        | Core | MPE | СС | FC | BDE       | Total AU |  |  |  |
| 1                                    | 26   | 0   | 9  | 0  | 6         | 41       |  |  |  |
| 2                                    | 23   | 0   | 8  | 0  | 6         | 37       |  |  |  |
| 3                                    | 12   | 0   | 0  | 10 | 8         | 30       |  |  |  |
| 4                                    | 19   | 3   | 0  | 0  | 10        | 32       |  |  |  |
| Total                                | 80   | 3   | 17 | 10 | 30        | 140      |  |  |  |

\* 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  | 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  |               |
| CC0001            | Inquiry and Communication in the Interdisciplinary World | CC   | 2  | HW0001        |
| CC0002            | Navigating the Digital World                             | CC   | 2  |               |
| ET9211            | Technopreneurial Mindset                                 | BDE  | 3  |               |
|                   |  |      | 21 |               |

| YEAR 1 SEMESTER 2 |   |      |    |               |
|-------------------|---|------|----|---------------|
| Course Code       | Course Title  | Туре | AU | Pre-Requisite |
| MH1811            | Mathematics 2   | C    | 3  | MH1810        |
| CV1014            | Introduction To Computational Thinking                    | C    | 3  |               |
| CV1711            | Engineering Drawing and 3D Building Information Modelling | C    | 1  |               |
| CV2020            | Water Resources Engineering                               | C    | 3  | CV1012        |
| EG1001            | Engineers In Society                                      | C    | 2  |               |
| CC0003            | Ethics & Civics in a Multi-Cultural World                 | CC   | 2  |               |
| CC0005            | Healthy Living & Wellbeing                                | CC   | 3  |               |
| ET9213            | Managing New Ventures                                     | BDE  | 3  |               |
|                   |   |      | 20 |               |

|             | YEAR 2 SEMESTER 1   |      |    |               |  |
|-------------|---|------|----|---------------|--|
| Course Code | Course Title  | Туре | AU | Pre-Requisite |  |
| CV2011      | Structural Analysis I                                       | C    | 3  | CV1011        |  |
| EN1001      | Environmental Chemistry                                     | C    | 3  |               |  |
| EN2004      | Soil Environment and Soil Mechanics                         | C    | 3  |               |  |
| EN2711      | Environmental Engineering Laboratory A                      | C    | 1  |               |  |
| MH2814      | Probability & Statistics                                    | C    | 3  | MH1810        |  |
| CC0006      | Sustainability: Society, Economy & Environment              | CC   | 3  |               |  |
| ML0004      | Career and Entrepreneurial Development for the Future World | CC   | 2  |               |  |
| ET9212      | Entrepreneurial Ecosystems                                  | BDE  | 3  |               |  |
|             |   |      | 21 |               |  |

| 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        |
| EN2712            | Environmental Engineering Laboratory B | С    | 1  |               |
| EN3003            | Environmental Transport Processes      | С    | 3  |               |
| CC0007            | Science & Technology for Humanity      | CC   | 3  |               |
| ET9214            | Financing Entrepreneurial Ventures     | BDE  | 3  | ET9213        |
|                   |  |      | 16 |               |

| YEAR 3 SEMESTER 1 |  |      |    |                 |
|-------------------|--|------|----|-----------------|
| Course Code       | Course Title   | Туре | AU | Pre-Requisite   |
| EN3001            | Solid & Hazardous Waste Management                       | C    | 3  | Year 3 Standing |
| EN3002            | Wastewater Engineering                                   | C    | 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          |
|                   | SMiE Elective Course 1                                   | BDE  | 3  |                 |
|                   |  |      | 20 |                 |

|             | YEAR 3 SEMESTER 2       |      |    |                    |
|-------------|-------------------------|------|----|--------------------|
| Course Code | Course Title            | Туре | AU | Pre-Requisite      |
| EN3914      | Professional Internship | FC   | 5  | Year 3 standing &  |
|             |                         | BDE  | 5  | completed ET9211 & |
|             |                         |      |    | ET9213             |
|             |                         |      | 10 |                    |

| YEAR 4 SEMESTER 1 |  |      |    |                 |  |
|-------------------|--|------|----|-----------------|--|
| Course Code       | Course Title                               | Туре | AU | Pre-Requisite   |  |
| CV4012            | Project Planning & Management              | C    | 2  | Year 4 Standing |  |
| EN4001            | Environmental Impact Analysis & Monitoring | C    | 3  |                 |  |
| EN4711            | Seminars & Site Visits                     | C    | 1  |                 |  |
| EN4911            | Final Year Project                         | С    | 4  | Year 4 Standing |  |
|                   | SMiE Elective Course 2                     | BDE  | 3  |                 |  |
|                   | SMiE Elective Course 3                     | BDE  | 3  |                 |  |
|                   |  |      | 16 |                 |  |

| YEAR 4 SEMESTER 2 |                                |          |     |                   |  |
|-------------------|--------------------------------|----------|-----|-------------------|--|
| Course Code       | Course Title                   | Туре     | AU  | Pre-Requisite     |  |
| EN4003            | Environmental Systems Analysis | C        | 2   |                   |  |
| EN4911            | Final Year Project             | C        | 4   | Year 4 Standing   |  |
| EN4912            | Integrated Design Project      | C        | 3   | Year 4 Standing   |  |
| EN4XXX            | Major Prescribed Elective      | MPE      | 3   | Refer to Syllabus |  |
|                   | SMiE Elective Course 4         | BDE      | 4   |                   |  |
|                   |                                |          | 16  |                   |  |
|                   | Tatal All for Cradua           | <b>.</b> | 140 |                   |  |

Total AU for Graduation : 140