

**AY2025-26 CURRICULUM FOR BACHELOR OF ENGINEERING (ENVIRONMENTAL ENGINEERING)  
WITH WORK STUDY DEGREE PROGRAMME  
(FIRST YEAR ADMISSION)**

Last Updated : 2-Jul-25

| SUMMARY OF ACADEMIC UNIT REQUIREMENT |                    |          |                                      |                     |                    |                                  |            |
|--------------------------------------|--------------------|----------|--------------------------------------|---------------------|--------------------|----------------------------------|------------|
| Year of Study                        | Major Requirements |          | Interdisciplinary Collaborative Core |                     |                    | Broadening & Deepening Electives | Total AU   |
|                                      | Core               | Major PE | Common Core                          | Professional Series | Care, Serve, Learn |                                  |            |
| 1                                    | 29                 | 0        | 6                                    | 0                   | 0                  | 0                                | 35         |
| 2                                    | 20                 | 0        | 8                                    | 3                   | 3                  | 7                                | 41         |
| 3                                    | 12                 | 0        | 0                                    | 13                  | 0                  | 5                                | 30         |
| 4                                    | 19                 | 3        | 0                                    | 0                   | 0                  | 8                                | 30         |
| <b>Total</b>                         | <b>80</b>          | <b>3</b> | <b>14</b>                            | <b>16</b>           | <b>3</b>           | <b>20</b>                        | <b>136</b> |

\* 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         |               |
| CV1711            | Engineering Drawing and 3D Building Information Modelling | C    | 1         |               |
| CC0001            | Inquiry and Communication in an Interdisciplinary World   | CC   | 2         |               |
|                   |   |      | <b>17</b> |               |

| YEAR 1 SEMESTER 2 |   |      |           |               |
|-------------------|---|------|-----------|---------------|
| Course Code       | Course Title  | Type | AU        | Pre-Requisite |
| MH1811            | Mathematics 2   | C    | 3         | MH1810        |
| CV1014            | Introduction To Computational Thinking                  | C    | 3         |               |
| CV2020            | Water Resources Engineering                             | C    | 3         | CV1012        |
| EN2002            | Microbiological Principles of Environmental Engineering | C    | 3         |               |
| EG1001            | Engineers In Society                                    | C    | 2         |               |
| CC0003            | Ethics & Civics in a Multi-Cultural World               | CC   | 2         |               |
| CC0015            | Health & Wellbeing                                      | CC   | 2         |               |
|                   |   |      | <b>18</b> |               |

| YEAR 2 SEMESTER 1 |  |      |           |               |
|-------------------|--|------|-----------|---------------|
| Course Code       | Course Title   | Type | AU        | Pre-Requisite |
| EN1001            | Environmental Chemistry                                  | C    | 3         |               |
| EN2004            | Geo-Environment and Soil Mechanics                       | C    | 3         |               |
| EN2711            | Environmental Engineering Laboratory A                   | C    | 1         |               |
| MH2814            | Probability & Statistics                                 | C    | 3         | MH1810        |
| CV0003            | Introduction to Data Science and Artificial Intelligence | PS   | 3         | CV1014        |
| CC0006            | Sustainability: Society, Economy & Environment           | CC   | 3         |               |
| ML0004            | Career Design & Workplace Readiness in the V.U.C.A World | CC   | 2         |               |
|                   |  |      | <b>18</b> |               |

| YEAR 2 SEMESTER 2 |  |      |           |               |
|-------------------|--|------|-----------|---------------|
| Course Code       | Course Title                               | Type | AU        | Pre-Requisite |
| EN2003            | Water Supply Engineering                   | C    | 3         | CV1012        |
| EN2005            | Environmental Health and Safety Management | C    | 3         |               |
| EN2712            | Environmental Engineering Laboratory B     | C    | 1         |               |
| EN3003            | Environmental Transport Processes          | C    | 3         |               |
| CC0007            | Science and Technology for Humanity        | CC   | 3         |               |
|                   | Service Learning                           | CSL  | 3         |               |
|                   | Broadening & Deepening Electives 1         | BDE  | 2         |               |
|                   |  |      | <b>18</b> |               |

| YEAR 2 SPECIAL SEMESTER |                           |      |    |                 |
|-------------------------|---------------------------|------|----|-----------------|
| Course Code             | Course Title              | Type | AU | Pre-Requisite   |
| EN2910                  | Professional Attachment 1 | BDE  | 5  | Year 2 standing |
|                         |                           |      | 5  |                 |

| YEAR 3 SEMESTER 1 |                                    |      |    |                 |
|-------------------|------------------------------------|------|----|-----------------|
| Course Code       | Course Title                       | Type | 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  | C    | 3  | Year 3 Standing |
| EN3006            | Energy Resource Engineering        | C    | 3  |                 |
| HW0288            | Engineering Communication          | PS   | 2  | CC0001          |
| MLxxxx            | Profession Preparation             | PS   | 1  |                 |
|                   |                                    |      | 15 |                 |

| YEAR 3 SEMESTER 2 |                         |      |    |   |
|-------------------|-------------------------|------|----|---|
| Course Code       | Course Title            | Type | AU | Pre-Requisite   |
| EN3920            | Professional Internship | PS   | 10 | Year 3 standing & completed at least 4 semesters of study |
|                   |                         |      | 10 |   |

| YEAR 3 SPECIAL SEMESTER |                           |      |    |                 |
|-------------------------|---------------------------|------|----|-----------------|
| Course Code             | Course Title              | Type | AU | Pre-Requisite   |
| EN3921                  | Professional Attachment 2 | BDE  | 5  | Year 3 standing |
|                         |                           |      | 5  |                 |

| YEAR 4 SEMESTER 1 |  |      |    |                   |
|-------------------|--|------|----|-------------------|
| Course Code       | Course Title                               | Type | AU | Pre-Requisite     |
| CV4012            | Project Planning & Management              | C    | 2  | Year 4 Standing   |
| EN4001            | Environmental Impact Analysis & Monitoring | C    | 3  |                   |
| EN4711            | Seminars on Built Environment              | C    | 1  |                   |
| EN4914            | Work Study Degree Final Year Project       | C    | 4  | Year 4 Standing   |
| EN4XXX            | Major Prescribed Elective                  | MPE  | 3  | Refer to Syllabus |
|                   | Broadening & Deepening Electives 2         | BDE  | 2  |                   |
|                   |  |      | 15 |                   |

| YEAR 4 WINTER SEMESTER |                                  |      |    |                 |
|------------------------|----------------------------------|------|----|-----------------|
| Course Code            | Course Title                     | Type | AU | Pre-Requisite   |
| EN4910                 | Professional Attachment (Winter) | BDE  | 3  | Year 4 standing |
|                        |                                  |      | 3  |                 |

| YEAR 4 SEMESTER 2 |                                      |      |    |                 |
|-------------------|--------------------------------------|------|----|-----------------|
| Course Code       | Course Title                         | Type | AU | Pre-Requisite   |
| EN4003            | Environmental Systems Analysis       | C    | 2  |                 |
| EN4914            | Work Study Degree Final Year Project | C    | 4  | Year 4 Standing |
| EN4912            | Integrated Design Project            | C    | 3  | Year 4 Standing |
|                   | Broadening & Deepening Electives 3   | BDE  | 3  |                 |
|                   |                                      |      | 12 |                 |

Total AU for Graduation : **136**