

**AY2026-27 CURRICULUM FOR BACHELOR OF ENGINEERING (ENVIRONMENTAL ENGINEERING)  
WITH SECOND MAJOR IN DATA ANALYTICS - PROFESSIONAL INTERNSHIP  
(FIRST YEAR ADMISSION)**

Last Updated : 29-Jul-26

| 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                                    | 28 [3]             | 0        | 7                                    | 0                   | 0                  | 3                                | 38 [3]         |
| 2                                    | 23 [3]             | 0        | 7                                    | 3                   | 3                  | 3                                | 39 [3]         |
| 3                                    | 12                 | 0        | 0                                    | 13                  | 0                  | 6                                | 31             |
| 4                                    | 20                 | 3        | 0                                    | 0                   | 0                  | 12                               | 35             |
| <b>Total</b>                         | <b>83 [6]</b>      | <b>3</b> | <b>14</b>                            | <b>16</b>           | <b>3</b>           | <b>24</b>                        | <b>143 [6]</b> |

\* Students without 'A' Level/Senior High School Physics will take 'PH1012 Physics A' (4AU)".

^ The Course will be double counted towards Primary Programme and Second Major in Data Analytics

| 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         |               |
| CV1012            | Fluid Mechanics                                           | C    | 3         |               |
| CV1711            | Engineering Drawing and 3D Building Information Modelling | C    | 1         |               |
| EN1001            | Environmental Chemistry                                   | C    | 3         |               |
| CC0015            | Health & Wellbeing                                        | CC   | 2         |               |
|                   |                                                           |      | <b>16</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         |               |
| CC0001            | Inquiry and Communication in an Interdisciplinary World | CC     | 2         |               |
| CC0007            | Science and Technology for Humanity                     | CC     | 3         |               |
| CV2019            | Matrix Algebra & Computational Methods                  | BDE-DA | 3         |               |
|                   |                                                         |        | <b>22</b> |               |

| YEAR 2 SEMESTER 1 |                                                          |      |           |               |
|-------------------|----------------------------------------------------------|------|-----------|---------------|
| Course Code       | Course Title                                             | Type | AU        | Pre-Requisite |
| EN2003            | Water Supply Engineering                                 | 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 and Workplace Readiness in a Dynamic World | CC   | 2         |               |
|                   |                                                          |      | <b>18</b> |               |

| YEAR 2 SEMESTER 2 |              |      |    |               |
|-------------------|--------------|------|----|---------------|
| Course Code       | Course Title | Type | AU | Pre-Requisite |

|        |                                            |        |           |        |
|--------|--------------------------------------------|--------|-----------|--------|
| EN2005 | Environmental Health and Safety Management | C      | 3         |        |
| EN2712 | Environmental Engineering Laboratory B     | C      | 1         |        |
| EN3002 | Wastewater Engineering                     | C      | 3         |        |
| EN3003 | Environmental Transport Processes          | C      | 3         |        |
| EN3004 | Air Pollution Control Engineering          | C      | 3         |        |
| CC0003 | Ethics & Civics in a Multi-Cultural World  | CC     | 2         |        |
|        | Service Learning                           | CSL    | 3         |        |
| MH1403 | Algorithms and Computing                   | BDE-DA | 3         | CV1014 |
|        |                                            |        | <b>21</b> |        |

| YEAR 3 SEMESTER 1 |                                            |        |           |                          |
|-------------------|--------------------------------------------|--------|-----------|--------------------------|
| Course Code       | Course Title                               | Type   | AU        | Pre-Requisite            |
| EN3001            | Solid & Hazardous Waste Management         | C      | 3         | Year 3 Standing          |
| EN3006            | Energy Resource Engineering                | C      | 3         |                          |
| EN3007            | Sustainability Management & Reporting      | C      | 3         |                          |
| EN4001            | Environmental Impact Analysis & Monitoring | C      | 3         |                          |
| HW0288            | Engineering Communication                  | PS     | 2         | CC0001 & Year 3 Standing |
| MLxxxx            | Profession Preparation                     | PS     | 1         |                          |
| SC4024            | Data Visualization                         | BDE-DA | 3         | CV1014 & MH2814          |
| EE4483            | Artificial Intelligence & Data Mining      | BDE-DA | 3         | CV2019 & CV0003          |
|                   |                                            |        | <b>21</b> |                          |

| 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   |
|                   |                         |      | <b>10</b> |                      |

| YEAR 4 SEMESTER 1 |                                          |        |           |                   |
|-------------------|------------------------------------------|--------|-----------|-------------------|
| Course Code       | Course Title                             | Type   | AU        | Pre-Requisite     |
| EN4004            | Membranes for Environmental Applications | C      | 3         |                   |
| EN4711            | Seminars on Built Environment            | C      | 1         |                   |
| EN4911            | Final Year Project                       | C      | 4         | Year 4 Standing   |
| EN4XXX            | Major Prescribed Elective                | MPE    | 3         | Refer to Syllabus |
| SC2207            | Introduction to Database                 | BDE-DA | 3         | MH1403            |
|                   | Data Analytics Elective Course           | BDE-DA | 3         | Refer to Syllabus |
|                   |                                          |        | <b>17</b> |                   |

| YEAR 4 SEMESTER 2 |                                                     |        |           |                   |
|-------------------|-----------------------------------------------------|--------|-----------|-------------------|
| Course Code       | Course Title                                        | Type   | AU        | Pre-Requisite     |
| EN4002            | Environmental Systems Analysis                      | C      | 3         | Year 3 Standing   |
| EN4911            | Final Year Project                                  | C      | 4         | Year 4 Standing   |
| EN4915            | Integrated Project Planning, Design, and Management | C      | 5         | Year 4 Standing   |
|                   | Data Analytics Elective Course                      | BDE-DA | 3         | Refer to Syllabus |
|                   | Data Analytics Elective Course                      | BDE-DA | 3         | Refer to Syllabus |
|                   |                                                     |        | <b>18</b> |                   |

Total AU for Graduation : **143**