

**AY2024-25 CURRICULUM FOR BACHELOR OF ENGINEERING (CIVIL)  
WITH SECOND MAJOR IN BUSINESS (INTERNATIONAL TRADING) - PROFESSIONAL INTERNSHIP  
(FIRST YEAR ADMISSION)**

Last Updated : 4-Jul-24

| SUMMARY OF ACADEMIC UNIT REQUIREMENT |           |          |           |           |           |            |
|--------------------------------------|-----------|----------|-----------|-----------|-----------|------------|
| Year of Study                        | Core      | MPE      | CC        | FC        | BDE       | Total AU   |
| 1                                    | 28        | 0        | 9         | 0         | 6         | <b>43</b>  |
| 2                                    | 24        | 0        | 8         | 0         | 9         | <b>41</b>  |
| 3                                    | 11        | 0        | 0         | 15        | 7         | <b>33</b>  |
| 4                                    | 17        | 3        | 0         | 0         | 9         | <b>29</b>  |
| <b>Total</b>                         | <b>80</b> | <b>3</b> | <b>17</b> | <b>15</b> | <b>31</b> | <b>146</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         |               |
| CC0001            | Inquiry and Communication in the Interdisciplinary World | CC   | 2         |               |
| CC0002            | Navigating the Digital World                             | CC   | 2         |               |
| AB1201            | Financial Management                                     | BDE  | 3         |               |
|                   |  |      | <b>21</b> |               |

| 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         |               |
| CC0003            | Ethics & Civics in a Multi-Cultural World | CC   | 2         |               |
| CC0005            | Healthy Living & Wellbeing                | CC   | 3         |               |
| AB1501            | Marketing                                 | BDE  | 3         |               |
|                   |   |      | <b>22</b> |               |

| 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         |               |
| MH2814            | Probability & Statistics                                    | C    | 3         | MH1810        |
| CC0006            | Sustainability: Society, Economy & Environment              | CC   | 3         |               |
| ML0004            | Career and Entrepreneurial Development for the Future World | CC   | 2         |               |
| AD1102            | Financial Accounting  | BDE  | 3         |               |
| BF2218            | Commodity Markets   | BDE  | 4         |               |
|                   |   |      | <b>22</b> |               |

| 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         |        |
| CV3012 | Steel Design  | C   | 3         | CV2011 |
| CC0007 | Science & Technology for Humanity                         | CC  | 3         |        |
| BF3214 | Commodities Trading                                       | BDE | 2         |        |
|        |   |     | <b>19</b> |        |

#### 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          |
| CV0003      | Introduction to Data Science and Artificial Intelligence | FC   | 3         | CV1014          |
| HW0288      | Engineering Communication                                | FC   | 2         | CC0001          |
| BF2216      | Trade Incoterms & Ship Chartering                        | BDE  | 4         |                 |
| AD2102      | Management Accounting                                    | BDE  | 3         | AD1102          |
|             |  |      | <b>23</b> |                 |

#### YEAR 3 SEMESTER 2

| Course Code | Course Title            | Type | AU        | Pre-Requisite   |
|-------------|-------------------------|------|-----------|---|
| CV3920      | Professional Internship | FC   | 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     |
|-------------|-----------------------------------|------|-----------|-------------------|
| CV4012      | Project Planning & Management     | C    | 2         | Year 4 Standing   |
| CV4711      | Seminars & Site Visits            | C    | 1         |                   |
| CV4911      | Final Year Project                | C    | 4         | Year 4 Standing   |
| CV4XXX      | Major Prescribed Elective         | MPE  | 3         | Refer to Syllabus |
| BE1402      | Business Operations and Process   | BDE  | 3         |                   |
| BF2302      | International Tax and Trading Law | BDE  | 2         |                   |
|             |                                   |      | <b>15</b> |                   |

#### YEAR 4 SEMESTER 2

| Course Code | Course Title                                    | Type | AU        | Pre-Requisite   |
|-------------|---|------|-----------|-----------------|
| CV3016      | Construction Technology & Processes             | C    | 3         |                 |
| CV4911      | Final Year Project                              | C    | 4         | Year 4 Standing |
| CV4912      | Integrated Design Project                       | C    | 3         | Year 4 Standing |
| BF3212      | Trade, Structured & Supply Chain Finance        | BDE  | 2         |                 |
| BF3213      | Enterprise Risk Management in Commodity Markets | BDE  | 2         |                 |
|             |   |      | <b>14</b> |                 |

Total AU for Graduation : **146**