

**AY2022-23 CURRICULUM FOR BACHELOR OF ENGINEERING (CIVIL)  
WITH CN YANG SCHOLARS PROGRAMME  
(FIRST YEAR ADMISSION)**

Last Updated : 20-Apr-22

| SUMMARY OF ACADEMIC UNIT REQUIREMENT |             |           |          |           |          |          |            |
|--------------------------------------|-------------|-----------|----------|-----------|----------|----------|------------|
| Year of Study                        | School Core | CNYS-Core | MPE      | CC        | FC       | BDE      | Total AU   |
| 1                                    | 13          | 27        | 0        | 5         | 0        | 0        | 45         |
| 2                                    | 20          | 10        | 0        | 5         | 3        | 3        | 41         |
| 3                                    | 22          | 0         | 0        | 3         | 5        | 0        | 30         |
| 4                                    | 12          | 0         | 3        | 0         | 0        | 5        | 20         |
| <b>Total</b>                         | <b>67</b>   | <b>37</b> | <b>3</b> | <b>13</b> | <b>8</b> | <b>8</b> | <b>136</b> |

| YEAR 1 SEMESTER 1 |                              |          |           |                       |
|-------------------|------------------------------|----------|-----------|-----------------------|
| Course Code       | Course Title                 | Type     | AU        | Pre-Requisite/Remarks |
| CY1001            | Cell                         | CNY-Core | 3         | CNYS-SP Courses       |
| CY1101            | Molecule                     | CNY-Core | 4         |                       |
| CY1308            | Physics                      | CNY-Core | 3         |                       |
| CY1500            | Introduction to Research     | CNY-Core | 2         |                       |
| CY1601            | Mathematics I                | CNY-Core | 4         |                       |
| CV1011            | Mechanics of Materials       | C        | 4         |                       |
| CC0002            | Navigating the Digital World | CC       | 2         |                       |
|                   |                              |          | <b>22</b> |                       |

| YEAR 1 SEMESTER 2 |   |          |           |                       |
|-------------------|---|----------|-----------|-----------------------|
| Course Code       | Course Title  | Type     | AU        | Pre-Requisite/Remarks |
| CY1007            | Living with Climate Change                                | CNY-Core | 3         | CNYS-SP Courses       |
| CY1602            | Mathematics II  | CNY-Core | 4         |                       |
| CV1013            | Civil Engineering Materials                               | C        | 3         |                       |
| CV1014            | Introduction To Computational Thinking                    | C        | 3         |                       |
| CV1711            | Engineering Drawing and 3D Building Information Modelling | C        | 1         |                       |
| EG1001            | Engineers In Society                                      | C        | 2         |                       |
| CC0005            | Healthy Living & Wellbeing                                | CC       | 3         |                       |
|                   |   |          | <b>19</b> |                       |

| YEAR 1 SPECIAL SEMESTER |                        |          |          |                       |
|-------------------------|------------------------|----------|----------|-----------------------|
| Course Code             | Course Title           | Type     | AU       | Pre-Requisite/Remarks |
| CY2003                  | Research Attachment 3  | CNY-Core | 4        | CNYS-SP Course        |
|                         | Overseas Learning Trip |          |          |                       |
|                         |                        |          | <b>4</b> |                       |

| YEAR 2 SEMESTER 1 |  |          |           |                                      |
|-------------------|--|----------|-----------|--------------------------------------|
| Course Code       | Course Title   | Type     | AU        | Pre-Requisite/Remarks                |
| CY0002            | Ethics   | CNY-Core | 3         | CNYS-SP Course                       |
| CY1307            | Quantum  | BDE      | 3         | Optional, may replace with other BDE |
| CV1012            | Fluid Mechanics  | C        | 3         |                                      |
| CV2011            | Structural Analysis I                                    | C        | 3         | CV1011                               |
| CV2013            | Engineering Geology & Soil Mechanics                     | C        | 3         |                                      |
| CV2711            | Civil Engineering Laboratory A                           | C        | 1         |                                      |
| CV0003            | Introduction to Data Science and Artificial Intelligence | FC       | 3         | CV1014                               |
|                   |  |          | <b>19</b> |                                      |

| YEAR 2 SEMESTER 2 |   |          |           |   |
|-------------------|---|----------|-----------|---|
| Course Code       | Course Title  | Type     | AU        | Pre-Requisite/Remarks   |
| CY0001            | Writing Across the Disciplines                              | CNY-Core | 3         | CNYSP Course  |
| CY2001            | Research Attachment 1                                       | CNY-Core | 4         | CNYSP Course<br>2-semester long, course registered only in Sem 2 (similar to URECA) |
| CV2012            | Structural Analysis II                                      | C        | 3         | CV2011  |
| CV2014            | Geotechnical Engineering                                    | C        | 3         | CV2013  |
| CV2020            | Water Resources Engineering                                 | C        | 3         | CV1012  |
| CV2712            | Civil Engineering Laboratory B                              | C        | 1         |   |
| CC0007            | Science & Technology for Humanity                           | CC       | 3         |   |
| ML0004            | Career and Entrepreneurial Development for the Future World | CC       | 2         |   |
|                   |   |          | <b>22</b> |   |

| YEAR 3 SEMESTER 1 |  |      |           |                       |
|-------------------|--|------|-----------|-----------------------|
| Course Code       | Course Title                                   | Type | AU        | Pre-Requisite/Remarks |
| CV3011            | Reinforced Concrete Design                     | C    | 3         | CV2011                |
| CV3013            | Foundation Engineering                         | C    | 3         | CV2013 & CV2014       |
| CV3014            | Transportation Engineering                     | C    | 3         |                       |
| CV3017            | Environmental Engineering                      | C    | 2         | CV1012                |
| MH2814            | Probability & Statistics                       | C    | 3         | MH1810                |
| CC0006            | Sustainability: Society, Economy & Environment | CC   | 3         |                       |
|                   |  |      | <b>17</b> |                       |

| YEAR 3 SEMESTER 2 |                                   |      |          |                                 |
|-------------------|-----------------------------------|------|----------|---------------------------------|
| Course Code       | Course Title                      | Type | AU       | Pre-Requisite/Remarks           |
| CV4211            | CNYSP Overseas Final Year Project | C    | 8        | Year 4 Standing<br>CNYSP Course |
|                   |                                   |      | <b>8</b> |                                 |

| YEAR 3 SPECIAL SEMESTER |                         |      |          |   |
|-------------------------|-------------------------|------|----------|---|
| Course Code             | Course Title            | Type | AU       | Pre-Requisite/Remarks                                     |
| CV3915                  | Professional Attachment | FC   | 5        | Year 3 standing & completed at least 4 semesters of study |
|                         |                         |      | <b>5</b> |   |

| YEAR 4 SEMESTER 1 |                                   |      |           |                       |
|-------------------|-----------------------------------|------|-----------|-----------------------|
| Course Code       | Course Title                      | Type | AU        | Pre-Requisite/Remarks |
| CV4012            | Project Planning & Management     | C    | 2         | Year 4 Standing       |
| CV4711            | Seminars & Site Visits            | C    | 1         |                       |
| CV4XXX            | Major Prescribed Elective         | MPE  | 3         | Refer to Syllabus     |
|                   | Broadening & Deepening Elective 1 | BDE  | 3         |                       |
|                   | Broadening & Deepening Elective 2 | BDE  | 2         |                       |
|                   |                                   |      | <b>11</b> |                       |

| YEAR 4 SEMESTER 2 |                                     |      |          |                       |
|-------------------|-------------------------------------|------|----------|-----------------------|
| Course Code       | Course Title                        | Type | AU       | Pre-Requisite/Remarks |
| CV3012            | Steel Design                        | C    | 3        | CV2011                |
| CV3016            | Construction Technology & Processes | C    | 3        |                       |
| CV4912            | Integrated Design Project           | C    | 3        | Year 4 Standing       |
|                   |                                     |      | <b>9</b> |                       |

Total AU for Graduation: **136**