

**Master in Civil Engineering (Water Resources)**

| Prog        | CCMT Code   | Group       | Sem      | code         | Course Title  | L         | T        | P         | Credits   | FM          |
|-------------|-------------|-------------|----------|--------------|---|-----------|----------|-----------|-----------|-------------|
| CEPG        | CEWR        | Core        | 1        | CE661        | Advanced Hydraulics                                   | 3         | 0        | 0         | 3         | 100         |
| CEPG        | CEWR        | Core        | 1        | CE662        | Advanced Hydrology                                    | 3         | 0        | 0         | 3         | 100         |
| CEPG        | CEWR        | EL-1        | 1        | CE6xx        | Elective – I  | 3         | 0        | 0         | 3         | 100         |
| CEPG        | CEWR        | EL-2        | 1        | CE6xx        | Elective – II   | 3         | 0        | 0         | 3         | 100         |
| <b>CEPG</b> | <b>CEWR</b> | <b>EL-3</b> | <b>1</b> | <b>CE6xx</b> | <b>Elective – III / Open Elective</b>                 | <b>3</b>  | <b>0</b> | <b>0</b>  | <b>3</b>  | <b>100</b>  |
| CEPG        | CEWR        | Lab         | 1        | CE681        | Advanced Civil Engineering Lab -I                     | 0         | 0        | 6         | 4         | 100         |
| CEPG        | CEWR        |             | 1        |              | <b>Total Semester Credit</b>                          | <b>15</b> |          | <b>6</b>  | <b>19</b> | <b>600</b>  |
| CEPG        | CEWR        | Core        | 2        | CE663        | Advanced Ground Water Engineering                     | 3         | 0        | 0         | 3         | 100         |
| CEPG        | CEWR        | EL-4        | 2        | CE6xx        | Elective – IV   | 3         | 0        | 0         | 3         | 100         |
| CEPG        | CEWR        | EL-5        | 2        | CE6xx        | Elective – V  | 3         | 0        | 0         | 3         | 100         |
| CEPG        | CEWR        | EL-6        | 2        | CE6xx        | Elective – VI   | 3         | 0        | 0         | 3         | 100         |
| <b>CEPG</b> | <b>CEWR</b> | <b>EL-7</b> | <b>2</b> | <b>CE6xx</b> | <b>Elective – VII / Open Elective</b>                 | <b>3</b>  | <b>0</b> | <b>0</b>  | <b>3</b>  | <b>100</b>  |
| CEPG        | CEWR        | Lab         | 2        | CE686        | Advanced Civil Engineering Lab - II                   | 0         | 0        | 3         | 2         | 100         |
| CEPG        | CEWR        | Lab         | 2        | CE690        | Seminar   | 0         | 0        | 6         | 4         | 100         |
| CEPG        | CEWR        |             | 2        |              | <b>Total Semester Credit</b>                          | <b>15</b> |          | <b>9</b>  | <b>21</b> | <b>700</b>  |
|             |             |             |          |              |   |           |          |           |           |             |
| CEPG        | CEWR        | Lab         | 3        | CE691        | Seminar and Comprehensive Viva - I                    | 0         | 0        | 3         | 2         | 100         |
| CEPG        | CEWR        | Lab         | 3        | CE692        | Dissertation (to be continued in 4 <sup>th</sup> Sem) | 0         | 0        | 12        | 8         | 100         |
| CEPG        | CEWR        |             | 3        |              | <b>Total Semester Credit</b>                          |           |          | <b>15</b> | <b>10</b> | <b>200</b>  |
| CEPG        | CEWR        | Lab         | 4        | CE693        | Seminar and Comprehensive Viva - II                   | 0         | 0        | 3         | 2         | 100         |
| CEPG        | CEWR        | Lab         | 4        | CE694        | Dissertation  | 0         | 0        | 15        | 10        | 100         |
| CEPG        | CEWR        |             | 4        |              | <b>Total Semester Credit</b>                          |           |          | <b>18</b> | <b>12</b> | <b>200</b>  |
| CEPG        | CEWR        |             |          |              | <b>Cumulative Total Credit</b>                        |           |          |           | <b>62</b> | <b>1700</b> |

**List of Electives**

|      |      |      |  |       |   |   |   |   |   |     |
|------|------|------|--|-------|---|---|---|---|---|-----|
| CEPG | CEWR | EL-x |  | CE664 | Water Resources System's Planning and Economic Analysis | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE665 | Optimization Techniques                                 | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE666 | Unsteady Flows  | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE667 | River Engineering                                       | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE668 | Reservoir Operation and Planning                        | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE669 | River Pollution and Control                             | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE670 | Remote Sensing and GIS for Water Resources              | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE671 | Hydro Power Engineering                                 | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE672 | Irrigation Water Management                             | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE673 | Advanced Land Drainage                                  | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE674 | Hydrodynamics   | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE675 | Floods and Droughts                                     | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE676 | Design of Hydraulic Structures                          | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE677 | Contaminant Transport in Porous Media                   | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | CE678 | Finite element analysis                                 | 3 | 0 | 0 | 3 | 100 |
| CEPG | CEWR | EL-x |  | MA604 | Probability and Statistics                              | 3 | 0 | 0 | 3 | 100 |