

Ministry of Higher Education

& Scientific Research

University of Mosul

College of Engineering

Civil Engineering

وزارة التعليم العالي والبحث العلمي

جامعة الموصل

كلية الهندسة

قسم الهندسة المدنية



قسم الهندسة المدنية

Civil Engineering

University of Mosul



Bachelor Degree – Civil Engineering

## Course Descriptions 2025-2024

1. Bologna Process / First Stage
2. Bologna Process / Second Stage
3. Semester System / Level Three
4. Course-Based System / Level Four



### First level – Bologna Process

| First Semester (Fall Semester) |                            |      |       |     |      | Second Semester (Spring Semester) |                          |      |       |     |      |
|--------------------------------|----------------------------|------|-------|-----|------|-----------------------------------|--------------------------|------|-------|-----|------|
| Code                           | Subject                    | SSWL | USSWL | SWL | ECTS | Code                              | Subject                  | SSWL | USSWL | SWL | ECTS |
| CE101                          | Mathematics I              | 78   | 72    | 150 | 6    | CE106                             | Mathematics II           | 78   | 97    | 175 | 7    |
| CE102                          | Engineering Mechanics I    | 78   | 72    | 150 | 6    | CE107                             | Engineering Mechanics II | 78   | 97    | 175 | 7    |
| CE103                          | Engineering Drawing I      | 63   | 62    | 125 | 5    | CE108                             | Engineering drawing II   | 63   | 87    | 150 | 6    |
| CE104                          | Geology                    | 63   | 87    | 150 | 6    | UOM1031                           | Computer 1               | 48   | 27    | 75  | 3    |
| CE105                          | Statistics I               | 33   | 42    | 75  | 3    | CE109                             | Statistics II            | 33   | 42    | 75  | 3    |
| UOM1040                        | Democracy and Human Rights | 33   | 17    | 50  | 2    | CE110                             | Electrical Engineering   | 33   | 17    | 50  | 2    |
| UOM1021                        | English Language 1         | 33   | 17    | 50  | 2    | UOM1011                           | Arabic Language 1        | 33   | 17    | 50  | 2    |

### Second level – Bologna Process

| First Semester (Fall Semester) |                                    |      |       |     |      | Second Semester (Spring Semester) |                                             |      |       |     |      |
|--------------------------------|------------------------------------|------|-------|-----|------|-----------------------------------|---------------------------------------------|------|-------|-----|------|
| Code                           | Subject                            | SSWL | USSWL | SWL | ECTS | Code                              | Subject                                     | SSWL | USSWL | SWL | ECTS |
| CE201                          | Engineering Mathematics I          | 63   | 62    | 125 | 5    | CE206                             | Engineering Mathematics II                  | 63   | 62    | 125 | 5    |
| CE202                          | Mechanics of Materials I           | 63   | 62    | 125 | 5    | CE207                             | Mechanics of Materials II                   | 78   | 72    | 150 | 6    |
| CE203                          | Fluid mechanics                    | 63   | 62    | 125 | 5    | CE208                             | Building construction and damage assessment | 48   | 27    | 75  | 3    |
| CE204                          | Concrete technology I              | 63   | 62    | 125 | 5    | CE209                             | Concrete technology II                      | 63   | 62    | 125 | 5    |
| CE205                          | Engineering surveying I            | 78   | 72    | 150 | 6    | CE210                             | Engineering surveying II                    | 78   | 72    | 150 | 6    |
| UOM2050                        | Crimes of the Baath Regime in Iraq | 33   | 17    | 50  | 2.00 | UOM2032                           | Computer 2                                  | 48   | 27    | 75  | 3    |
| UOM2012                        | Arabic Language 2                  | 33   | 17    | 50  | 2.00 | UOM2022                           | English Language 2                          | 33   | 17    | 50  | 2    |

**SSWL: Structured Student Work Load (hr./Semester), USSWL: Unstructured Student Work Load (hr./Semester),  
SWL: Student Work Load (hr./Semester)**

### Third level – Semester

| First Semester (Fall Semester) |                             |           |          |          |           | Second Semester (Spring Semester) |                              |           |          |          |           |
|--------------------------------|-----------------------------|-----------|----------|----------|-----------|-----------------------------------|------------------------------|-----------|----------|----------|-----------|
| Code                           | Subject                     | Theo.     | Exp.     | Prac.    | Units     | Code                              | Subject                      | Theo.     | Exp.     | Prac.    | Units     |
| CE301                          | Engineering analysis        | 2         | 2        | -        | 3         | CE309                             | Numerical analysis           | 2         | 2        | -        | 3         |
| CE302                          | Theory of structures I      | 3         | -        | 1        | 3         | CE310                             | Theory of structures II      | 3         | -        | 1        | 3         |
| CE303                          | Soil mechanics I            | 2         | 2        | 1        | 3         | CE311                             | Soil mechanics II            | 2         | 2        | 1        | 3         |
| CE304                          | Reinforced concrete I       | 3         | -        | 1        | 3         | CE312                             | Reinforced concrete II       | 3         | -        | 1        | 3         |
| CE305                          | Highway Engineering I       | 2         | 2        | 1        | 3         | CE313                             | Highway Engineering II       | 2         | 2        | 1        | 3         |
| CE306                          | Environmental engineering I | 2         | 2        | -        | 3         | CE314                             | Environmental engineering II | 2         | 2        | -        | 3         |
| CE307                          | Engineering management      | 2         | -        | -        | 2         | CE315                             | Engineering economy          | 2         | -        | -        | 2         |
| CE308                          | Hydrology                   | 2         | -        | -        | 2         | CE316                             | Hydraulic structures         | 2         | -        | -        | 2         |
|                                |                             | <b>18</b> | <b>8</b> | <b>4</b> | <b>22</b> |                                   |                              | <b>18</b> | <b>8</b> | <b>4</b> | <b>22</b> |

### Fourth level – Courses

| First Semester (Fall Semester) |                                                            |                         |           |          |           | Second Semester (Spring Semester) |                                            |                         |           |          |           |
|--------------------------------|------------------------------------------------------------|-------------------------|-----------|----------|-----------|-----------------------------------|--------------------------------------------|-------------------------|-----------|----------|-----------|
| Code                           | Subject                                                    | Type                    | Theo.     | Exp.     | Units     | Code                              | Subject                                    | Type                    | Theo.     | Exp.     | Units     |
| -                              | English language – Upper Intermediate                      | University - Compulsory | 2         | -        | 2         | ENGC425                           | Engineering Management                     | University - Compulsory | 2         | -        | 2         |
| CIV401                         | Fundamentals of Steel Structures                           | Compulsory              | 2         | -        | 2         | ENGC426                           | Engineering Economics                      | University - Compulsory | 2         | -        | 2         |
| CIV402                         | Reinforced Concrete Design                                 | Compulsory              | 2         | -        | 2         | CIV412                            | Graduation Project II                      | Compulsory              | 2         | -        | 2         |
| CIV403                         | Fundamentals of Foundation Engineering                     | Compulsory              | 3         | -        | 3         | CIV413                            | Quantity Survey                            | Compulsory              | 2         | -        | 2         |
| CIV404                         | Graduation Project I                                       | Compulsory              | 2         | -        | 2         | CIV414                            | Sanitary and Environmental Engineering     | Compulsory              | 3         | -        | 3         |
| CIV405                         | Computer Applications                                      | Compulsory              | -         | 2        | 1         | CIV415                            | Construction Drawing                       | Compulsory              | -         | 2        | 1         |
| CIV406                         | Special Topics in Design of Reinforced Concrete Structures | Selective               | 2         | -        | 2         | CIV416                            | Steel Structures Design                    | Selective               | 2         | -        | 2         |
| CIV407                         | Special Topics in Structural Analysis and Design           | Selective               | 2         | -        | 2         | CIV417                            | Prestressed Concrete and Bridge Design     | Selective               | 2         | -        | 2         |
| CIV408                         | Special Topics in Geotechnical Engineering                 | Selective               | 2         | -        | 2         | CIV418                            | Analysis and Design of Shallow Foundations | Selective               | 2         | -        | 2         |
| CIV409                         | Problematic Soils in Engineering Applications              | Selective               | 2         | -        | 2         | CIV419                            | Analysis and Design of Deep Foundations    | Selective               | 2         | -        | 2         |
| CIV410                         | Flexible Pavement Design                                   | Selective               | 2         | -        | 2         | CIV420                            | Special Topics in Highway Engineering      | Selective               | 2         | -        | 2         |
| CIV411                         | Rigid Pavement Design                                      | Selective               | 2         | -        | 2         | CIV421                            | Special Topics in Traffic Engineering      | Selective               | 2         | -        | 2         |
|                                |                                                            |                         | <b>17</b> | <b>2</b> | <b>18</b> |                                   |                                            |                         | <b>17</b> | <b>2</b> | <b>18</b> |