

# University of Oum El Bouaghi

## Bachelor's degree in Engineering - Civil & Structural

### 1. Program Description:

The Civil Engineering License course aims to give the student a scientific and technological basis ensuring the mastery of academic and practical knowledge in the various construction fields. Besides, a professional aptitude leading to a good insertion in functions of framing, management within construction companies, follow-up and control of projects, this License ensures to the student a scientific and specific basic training which him confers a capacity of assimilation allowing him to access higher degrees: the Master and the possibility of preparing a Doctorate in the various specialties of Civil Engineering.

## **Speciality: Civil Engineering**

#### **Common Base Science and Technology**

#### Semester 1

| Teaching unit             | Title of the Subject                |
|---------------------------|-------------------------------------|
| Fundamental teaching unit | Mathematics 1                       |
|                           | Physics 1                           |
|                           | Structure of the material           |
| Methodology teaching unit | TP Physics 1                        |
|                           | TP Chemistry 1                      |
|                           | Informatics 1                       |
|                           | Writingmethodology                  |
| Discovery teaching unit   | Careers in science and technology 1 |
| Transversal teaching unit | ForeignLanguage 1 (English)         |

#### Semester 2

| Teaching unit             | Title of the Subject                |
|---------------------------|-------------------------------------|
| Fundamentalteaching unit  | Mathematics 2                       |
|                           | Physics 2                           |
|                           | Thermodynamics                      |
| Methodologyteaching unit  | TP Physics 2                        |
|                           | TP Chemistry 2                      |
|                           | Informatics 2                       |
|                           | Methodology of the presentation     |
| Discoveryteaching unit    | Careers in science and technology 2 |
| Transversal teaching unit | ForeignLanguage2 (English)          |

## Semester 3

| Teaching unit             | Title of the Subject       |
|---------------------------|----------------------------|
| Fundamentalteaching unit  | Mathematics 3              |
|                           | Waves and vibrations       |
|                           | Fluidmechanics             |
|                           | Rational mechanics         |
| Methodologyteaching unit  | Probability and statistics |
|                           | Informatics 3              |
|                           | Technical design           |
|                           | TP Waves and vibrations    |
| Discoveryteaching unit    | Basic technology           |
|                           | Metrology                  |
| Transversal teaching unit | Technical English          |

## Semester 4

| Teaching unit             | Title of the Subject                         |
|---------------------------|--|
| Fundamentalteaching unit  | Soil Mechanics                               |
|                           | Building materials                           |
|                           | Mathematics 4                                |
|                           | Numerical methods                            |
|                           | Strength of materials                        |
| Methodologyteaching unit  | Computer Aided Design                        |
|                           | TP Soil Mechanics                            |
|                           | TP NumericalMethods                          |
|                           | TP Strength of Materials and Fluid Mechanics |
|                           | TP Building Materials                        |
| Discoveryteaching unit    | Geology                                      |
|                           | Topography 1                                 |
| Transversal teaching unit | Entrepreneurship and business management     |

## Semester 5

| Teaching unit             | Title of the Subject              |
|---------------------------|-----------------------------------|
|                           | Resistance of Materials 2         |
| Fundamentalteaching unit  | Reinforced Concrete 1             |
|                           | Structural Steel                  |
|                           | SoilMechanics 2                   |
|                           | Building Materials 2              |
| Methodologyteaching unit  | TP Topography                     |
|                           | TP Soil Mechanics 2               |
|                           | TP Construction Materials2        |
|                           | Construction Drawing              |
| Discoveryteaching unit    | Topography 2                      |
|                           | General hydraulics                |
| Transversal teaching unit | Construction techniques and rules |

## Semester 6

| Teaching unit             | Title of the Subject                         |
|---------------------------|--|
| Fundamentalteaching unit  | Structural Design                            |
|                           | Steel Structures                             |
|                           | Reinforced Concrete 2                        |
|                           | Foundations and Geotechnical Structures      |
| Methodology teaching unit | End of Cycle Project                         |
|                           | Computer-aided design                        |
|                           | Quantity Surveying and Estimation            |
| Discovery teaching unit   | Roads and Miscellaneous Networks             |
|                           | Organisation of building sites               |
| Transversal teaching unit | Professional project and business management |