CENTRALE LYON

Civil Engineer

Degree level: Specialty engineering
Training time: 3 years
Language: French
Status: Student, Sandwich courses, professional training
Campus: Saint-Etienne Campus

Objectives

This CTI-accredited course trains students to meet the challenges of modern construction, and responding to the needs of the building and public works sector requires a variety of skills, such as structural calculations, geotechnics, materials, superstructures...

Engineers capable of intervening at all stages of construction projects in the sectors:

- **building** (structures, technical and comfort equipment);
- **public works** (engineering structures, roads, earthworks).

Program

Student status Under apprentice status

The civil engineering training at Centrale Lyon ENISE will enable future engineers to:

- Dimension and verify the building envelope from a physical point of view (thermal, acoustic, hydric)
- Design, dimension and verify durable structures under complex stresses
- Optimize concrete formulations and the implementation process
- Dimension free-surface flows in urban hydraulics and for watercourses
- Justify classic geotechnical structures

- Research, analyze and synthesize the main building and civil engineering solutions in order to propose a global technical response adapted to a predefined context
- Define an optimized worksite organization in terms of economics, methodology, technology, human resources and materials, planning, quality, safety and environment
- Build and manage digital project models using a BIM tool

In 5th year, in line with their career plans, student engineers can choose one of 3 specialties:

- Buildings
- Structures and public works
- Eco-construction, wood, environment

Also in 5th year, student engineers can choose to start their professional integration through a professionalization contract, complete their engineering training with a research master's degree, or obtain a double degree at one of our international partner universities.

On-the-job training / Internships

In order to enable the acquisition of practical knowledge of the working world, Centrale Lyon ENISE engineering training integrates 3 internship periods:

- 8- to 12-week internships in 2nd year
- 18-week internships in 4th year
- 22- to 24-week internships in 5th year

International mobility

A stay abroad in the form of an internship or academic exchange enables students to both consolidate their language skills and open up to other cultures. A minimum of one semester's mobility abroad is a prerequisite for graduation. It can take the form of an

Erasmus academic stay, an internship or a double degree in one of our 117 academic partners in 34 countries.

Languages

Language courses are designed to give you linguistic fluency in a professional environment. TOEIC certification is compulsory to obtain the diploma, for which intensive one-week preparation courses are planned over the last 3 years of training. A second language is included in the training program.

Passers to the generalist curriculum

In 3rd year, engineering students recruited on a post-baccalaureate basis, as well as students recruited on a bac +2/bac+3 basis who have not passed the Centrale-Supélec competitive entrance exam, have the opportunity to join the Ecole Centrale de Lyon and continue in the generalist engineering curriculum (integration in 1st year of the engineering cycle). Selection is based on a dossier and interview.

In 5th year, depending on their career plans, engineering students can choose one of the 5th year specialties offered by Ecole Centrale de Lyon and apply for this course. It is also possible to complete the 5th year at another school in the College of Engineering, such as École des Mines de Saint Étienne, INSA, ENTPE or EM Lyon.

Projects

An engineer will be required to solve concrete, complex technical problems by managing projects that integrate technical, organizational and financial aspects. Several integrative projects punctuate the course:

- **The 5th semester project** aims to apply scientific and technical skills to a multidisciplinary problem within the student engineer's chosen profession (eg:
- **The 8th semester project** aims at development/innovation in an entrepreneurial logic by associating two complementary trades (e.g. Mechanical Engineering + Civil

Engineering, Civil Engineering + Physical Engineering, etc.) in order to develop the skills of a professional engineer.) in order to develop innovation skills in a multicultural environment;
- **The 9th semester project** is dedicated to the discovery of a research activity related to Centrale Lyon ENISE's areas of expertise

.

After a first year consisting of a common core curriculum, the apprentice-engineer will be able to tint his or her training as he or she sees fit, thanks to electives (subjects to choose from) that will enable him or her to focus on the trade and/or sector that interests him or her most.
The apprentice will thus be able to learn to:

- Identify and manage projects
- Design and prepare a concrete/wood/metal structure or mixed construction project
- Conduct and manage an operation involving all trades (organize, produce, execute, deliver)
- Manage teams
- Ansure post-completion monitoring (guarantees, responsibilities, subsequent work on the structure)
- Study, industrialize and build a timber or timber-mixed construction
- Develop skills around BIM
- Control the performance of structures and envelopes
- Train in sustainable construction and new construction techniques

Apprenticeship organization

- The 3 years of training are organized into 6 semesters with around 1800 hours of academic training
- The period of alternating training - company is progressive:
    - 5 periods of 4 and 7 weeks at Centrale Lyon ENISE in 1st year
    - 4 periods of 3 to 4 weeks at Centrale Lyon ENISE in 2nd year
    - 3 periods of 4 weeks at Centrale Lyon ENISE in 3rd year

- An international course of 12 weeks is compulsory, including a minimum of 9 weeks of international mobility (during company periods)
- Personalized support for the alternating student throughout the training, by a dual company-school tutoring system

Apprenticeship highlights

- Free, degree-granting training
- Company assignments that encourage responsibility taking
- Training in cutting-edge fields linked to ENISE research areas
- Training designed by companies, thought out and validated by a grande école
- 3 years of experience that accelerate professional integration

A dual tutoring system in companies and at Centrale Lyon ENISE

Diploma and certification

This course delivers a national engineering diploma, controlled by the State and accredited by the Commission des Titres d'Ingénieur.





Career opportunities

- Works engineer in conventional structures and mixed wood structures
- Lean construction engineer
- Methods engineer
- Engineering engineer: design, dimensioning, calculation of conventional structures and mixed wood structures
- Business manager
- BIM manager
- Project manager

Focus

Strong industrial roots

Internships, professionalization contracts, apprenticeship training, professional contributions to training, industrial contracts... so many partnership projects with all the socio-economic players that testify to the strong links between Centrale Lyon ENISE and the business world.

Admission requirements and application

Requirements

- Admission Bac + 2 or Bac +3 (Cycle préparatoire intégré Centrale Lyon ENISE, Cycle préparatoire CapECL, CPGE, BUT 2ème ou 3ème année de BUT, licence 3).

Application

Application by dossier on the dedicated platform:

Apply

To apply for an apprenticeship, you must be under 30, and hold at least 120 ECTS (European) credits corresponding to two fully validated years of post-baccalaureate higher education.

Tuition fees

- **Under student status:** **From the start of the 2026 academic year, registration fees for the entire engineering cycle will be modulated. Fees, now calculated according to reference tax income, will vary between €1,613 and €4,113 per year. A total exemption is maintained for students on CROUS scholarships.**
- **Under apprentice status:** Training is free for students on work-study contracts.

Access the simulator

Administrative contact

Scolarité Centrale Lyon ENISE

Informations et inscriptions

scol@enise.fr

Documents

- Syllabus Civil Engineering under student status (2,80 Mo)
- Syllabus Civil Engineering under apprentice status (2,68 Mo)
- Civil Engineering brochure (1,05 Mo)

- To apply, please visit application.ec-lyon.fr