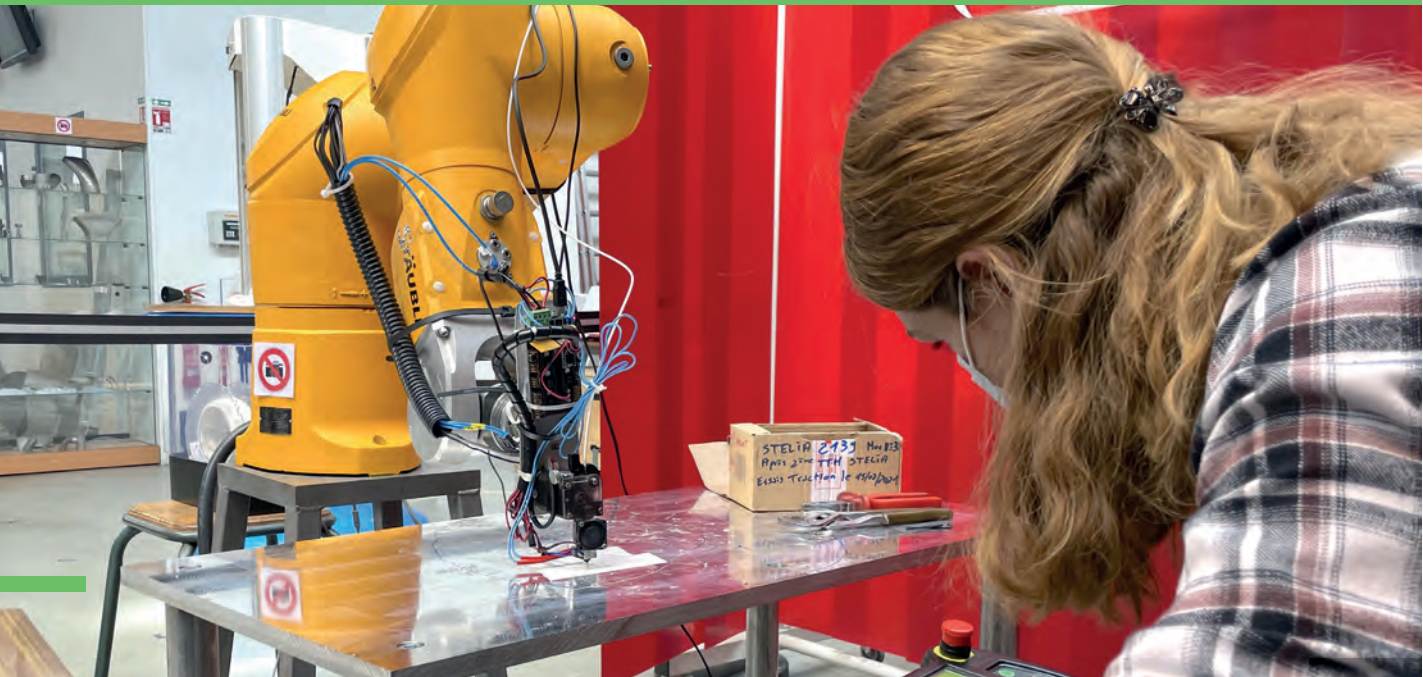


# BACHELOR OF SCIENCE IN ENGINEERING

MECHANICAL ENGINEERING, FLUIDS AND ENERGY,  
CIVIL ENGINEERING, SIGNAL CONTROL AND ROBOTICS

BSc

Bachelor of Science in Engineering



The Bachelor of Science in Engineering is a fully accredited\* three-year programme, set to welcome its first intake of students in September 2023.

This high quality academic programme offers its graduates **the opportunity to pursue their studies on one of our Master's programmes** or alternatively to **join the workforce upon graduation**.

**Fully taught in English**, the programme will welcome **international students** from around the globe on our Nantes campus.

*\*fully accredited by the CTI, the independent body in charge of the accreditation of engineering degrees in France*

## Programme benefits

- > Know how to tackle engineering problems and develop all-important soft skills
- > Choose your final year academic focus
- > Interact directly with industry and gain hands-on experience for direct entry into the workforce
- > Be ideally prepared for a Master's degree
- > Study in English whilst learning a new language and discovering France
- > Experience life on a green campus in one of France's best student cities
- > Join the network of over 20,000 alumni

# COURSE CONTENT



## Choose your programme

The three-year programme - with 1800 face-to-face teaching hours - comprises two years of core curriculum courses and a final year with a choice of four academic focus areas: Mechanical Engineering, Fluids and Energy, Civil Engineering or Signal Control and Robotics. Students can further customise their programme with the option of taking up a gap year or an exchange semester with one of our international partners.

## Get hands-on industry exposure

In line with the school's values a third of the programme focuses on business sciences, social sciences and languages with a strong emphasis on developing professional and entrepreneurial skills. Students will gain invaluable hands-on experience through two work placements - a six-week internship at the end of year 2 and a 16-week final year internship in a company or research lab - which can be undertaken in France or overseas. Coursework also includes regular contact with industry via industrial study projects and engineering projects. External speakers and industry experts play active role in the curriculum, particularly in the final year academic focus areas.

## Study in English

The language of instruction is English. Whilst there is no prior requirement to speak or understand the French language for admission to the Bachelor programme, French language classes are provided throughout the three year programme. This gives students the means not only to get by in French in their daily lives, but also to fully benefit from internship opportunities in France. It is expected that students will obtain a B1/B2 level in French upon completion of the programme (B1 minimum required for graduation).

## RANKINGS

- > Top 250 in the world for engineering - The World University Rankings by Subject 2022
- > Top 5 in France for civil engineering, mechanics, aeronautics and manufacturing - QS World University Rankings by Subject 2022
- > 8th global performer on student mobility - U-Multirank 2022

YEAR 1 - S1 COURSE UNITS	HOURS	ECTS
Mathematics and Computer Science	96	14
Physics and Engineering	96	12
Languages and Professional Skills	108	4

YEAR 1 - S2 COURSE UNITS	HOURS	ECTS
Mathematics and Computer Science	96	12
Physics and Engineering	108	5
Languages, Professional Skills and Society	132	5

YEAR 2 - S3 COURSE UNITS	HOURS	ECTS
Mathematics Numerics and Control	96	12
Mechanics and Energy	96	12
Languages and Professional Skills	144	6

YEAR 2 - S4 COURSE UNITS	HOURS	ECTS
Mathematics and Computer Science	48	4
Physics and Engineering	96	12
Languages, Professional Skills & Society	180	9
6-week internship		5

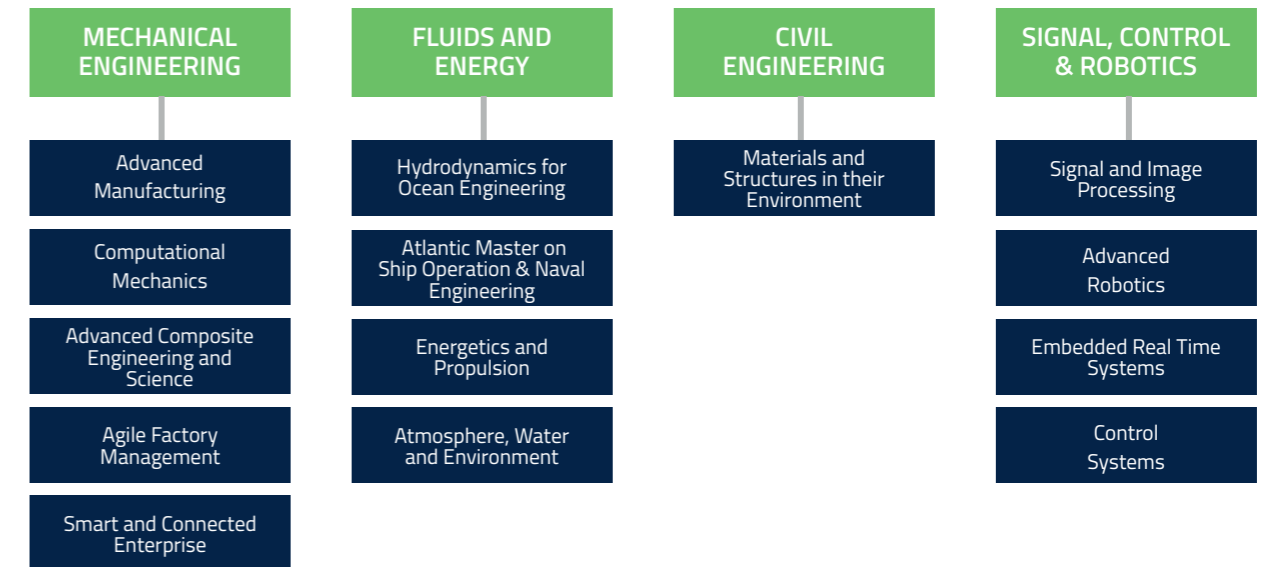
YEAR 3 - S5 COURSE UNITS	HOURS	ECTS
Academic Focus Area*	192	24
Industrial Project	24	2
Languages & Professional Skills	96	4

YEAR 3 - S6 COURSE UNITS	HOURS	ECTS
Academic Focus Area*	132	15
Industrial and Research	48	3
Languages	12	1
16-week final internship		11

\* Choice of Mechanical Engineering / Fluids & Energy / Civil Engineering / Signal, Control & Robotics. Learn more: <https://www.ec-nantes.fr/bsc>

# WHERE WILL THE BSc TAKE ME?

Graduates of the BSc in Engineering can pursue their studies with an international master's programme in France or elsewhere. They are ideally placed to continue their studies at Centrale Nantes on one of our 6 Master's of Science, Technology and Health - all taught in English. With a choice of four academic focus areas in year 3, students are prepared more specifically for the challenges of the following Master's programmes:



## CAREER PROSPECTS

The BSc also prepares its students for direct entry into the workforce. Excellent careers prospects await graduates in startups, SMEs, mid-sizes and large groups alike across varied sectors of activity:

- > Transport - automotive, aeronautical, naval and railway
- > Building, public works and sustainable construction
- > Energy, water and environment
- > Food and beverage industries
- > Health, biomedical
- > Robotics & telecommunications
- > Defence
- > Maritime industry (offshore, MRE)

Students benefit from individual careers guidance from our Student Life Team. Face-to-face or online careers sessions, mentoring sessions with graduates, webinars, online forums, etc. help future graduates to find their path.

## HOW TO APPLY?

Open to students preparing a high school diploma or equivalent, or having obtained this qualification within the last 12 months.

- > Apply online: <https://ecandidat.ec-nantes.fr>
- > Application deadline 26 May 2023
- > Interview scheduled for eligible students
- > Admission confirmed shortly after interview
- > See website for tuition and funding opportunities

**Julian**  
Bachelor of  
Engineering Graduate,  
Class of 2020



"Centrale Nantes offers a core learning framework that shapes students into the great leaders of tomorrow. This, in addition to the solid engineering coursework, multicultural experience, and highly qualified professors convinced me to choose Centrale Nantes for architecting my career goals.

The course gave me an opportunity to experience both theoretical and industrial knowledge. I had a couple of long internships with different companies in the civil engineering and construction sector that gave me hands-on experience and really helped jump-start my career. Currently, I am working for MSALABS - a global provider of a full range of geochemical laboratory services, as a senior project engineer. I have been in charge of developing, designing, and managing several construction projects in Africa, the Middle East, and Canada.

Life on campus was undoubtedly the best, characterized by the comfort, security, convenience, community, and diversity of the people around. I met friends from different parts of the world who have definitely made me have a multicultural perception. We shared a bunch of experiences from food, music, language, sports & games, and career plans."





**2,500**  
STUDENTS

**Over 80 nationalities**  
on campus

**43% of international**  
students

**196 academic**  
partners in  
**51 countries**

**20 000 alumni**

Centrale Nantes houses 17 buildings on a 40-acre green campus, a stone's throw from the city centre. In addition to the standard facilities of a university campus, it is home to a student hall of residence, 13 research platforms, the Centrale-Audencia-Ensa incubator and modern sports facilities including a gymnasium, squash courts, and an artificial sports pitch. Student life is particularly dynamic with over 110 clubs and associations.

Take a virtual tour of the campus: <http://bit.ly/Image-In-Centrale>



## CAMPUS

## NANTES, a great place to live, work and study

Nantes is attracting more and more students, drawn by the quality of life, the vibrant cultural offering and job prospects in France's sixth largest city. One hour away from the Atlantic coast and only two hours from Paris by train, Nantes is easy to reach from all over the world!

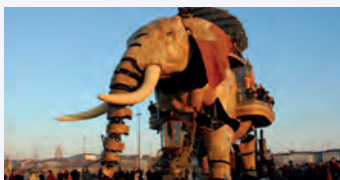
**2 hours by train to**  
**PARIS**

**60 000** students,  
with 10% international students



**6<sup>th</sup>**  
best student city  
in 2021

**2<sup>nd</sup>**  
greenest city in  
France in 2020



**FRENCHTECH**  
capital since 2019



**Cti**  
Commission  
des Titres d'Ingénieur

MINISTÈRE  
DE L'ENSEIGNEMENT  
SUPÉRIEUR,  
DE LA RECHERCHE  
ET DE L'INNOVATION  
*Liberté  
Égalité  
Fraternité*



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École Centrale de Nantes  
[www.ec-nantes.fr](http://www.ec-nantes.fr)