

European Master Degree in Automotive Engineering





> **The students acquire**

- Comprehensive technical know-how in vehicle design and technology
- In-depth knowledge in numerous specialisations
- A European perspective
- Operational skills in two European languages
- Experience of a multinational, multicultural environment
- Management skills

> **They become immediately operational in the fields of:**

- Applied research
- Engineering, development and design
- Production
- Management
- Sales engineering, customer service






ENTRANCE LEVEL : TECHNICAL DEGREE OR EQUIVALENT

First year (2 semesters)

ENSTA Bretagne  Brest France <i>Language: French</i>	ITB  Bandung Indonesia <i>Language: English</i>	CTU  Prague Czech Republic <i>Language: English</i>	TUCH  Chemnitz Germany <i>Language: German</i>
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Switch of universities ↓ between the 1st and 2nd year

Second year (2 semesters)

ENSTA Bretagne  Brest > Vehicle design > Modeling and Computation <i>Language: Fr.</i>	CTU  Prague > Advanced powertrains <i>Language: Eng.</i>	HAN  Arnhem > Vehicle dynamics and intelligent transport systems <i>Language: Eng.</i>	TUCH  Chemnitz > Fuel Cell Drives <i>Language: Germ.</i>	Entrance exam IFP IFP  > ICE > Powertrains > Engines and fuels <i>Language: Fr.</i>
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4th semester

> devoted to final thesis and 5 months internship in an industrial or academic environment anywhere in the world

MASTER DEGREE IN AUTOMOTIVE ENGINEERING*

Master degree from 2 countries depending on specialisation in 3rd semester

*Double degree from at least 2 countries

>>> Qualified teaching staff

All courses are given by European research faculty members or by engineers who are specialists in their field of industry: Bosch, Mecas ESI, Peugeot PSA, Renault, Valeo, TNO...



> **The Master in Automotive Engineering provides high level professional know-how in automotive engineering combining both technical, management and linguistic skills.**

The students in the study programme are trained in the field of design of motor vehicles, combustion engines and powertrain components. Fundamental training in the fields of mechanics of multibody systems, mechanics of solid and fluid phase continua, vibration in vehicles, technological issues specific to the automotive industry, design of tools and plastic parts, microelectronics, CAD, economy, management and experimental methods specific to the automotive field is also provided.

During the second year eight specialisations closely related to Vehicles, Vehicle Powertrains and numerical design of structures are offered. 5 month internship period in the R&D department of an international company, followed by a written thesis and viva voce, form an integral part of the programme.

ENSTA BRETAGNE PROGRAMME

First year (2 semesters)

The first year at ENSTA Bretagne (Brest, France), courses are taught in French. The topics cover most of the general basics of machinery and automotive engineering.

Second year (2 semesters)

One semester of specific courses taught completely in French

with the core curriculum:
vehicle architecture, finite element method, high technology materials, etc...

and 2 specialisations:

- **modeling structure analysis:**
explicit dynamics calculations, laws of behaviour
- **vehicle design:** road holding, brakes, exhaust systems, engines, electric design, human environment...

One semester devoted to final thesis following a 5 month internship

A crucial test of the true capacities consists in evaluating the student to put into practice the knowledge and «know-how» acquired, in a real industrial environment as well as demonstrating his/her aptitudes at managing a project whilst respecting the imposed deadlines, costs and quality requirements.

> **Admission & enrolment**

Application forms: available as of January. Completed applications must be submitted before May the 1st for non European students and June the 30th for EU students.

Selection: is on the basis of written applications.

Tuition fees: For current rates please consult partner websites (scholarships may be obtained see websites).

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ENSTA Bretagne:

800 STUDENTS

88 DOCTORAL FELLOWS

>>> **ENSTA Bretagne** is a French national graduate and post-graduate engineering institute which offers three year engineering programmes to both civilian and military students. The courses are of high quality and are designed to ensure that students have an excellent level of expertise in their chosen field of Engineering. ENSTA Bretagne graduates are able to design, build and manage complex electronic and mechanical systems.

ENSTA Bretagne was founded in 1816 and is under the auspices of the French Defence Ministry (DGA)

ENSTA Bretagne is located in Brest a city that lies on the western-most tip of France. Brest is the European capital of marine and oceanographic research. Brest is also very much a university city with 24,000 students including 1,700 foreign students. Ten minutes from the center of Brest, on the ultra-modern campus of ENSTA Bretagne, you will find all equipment (amphitheatres, IT tools and special Software, sports facilities, etc) and accommodation (restaurant, 222 rooms) you need for your studies and exciting student life.

PROGRAM HIGHLIGHTS

Open to students of all nationalities having a bachelor degree (mechanical, transport or electronic)	Unique in Europe	International cooperation between four renowned universities	Double degree from two countries
Study stay in at least 2 European countries	8 specialisations offered in the second year of study	Integrated language studies	Supported by French Embassy in the Czech Republic

CONTACT

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MORE INFORMATION
www.emae.eu