General Engineering degree

PURPOSES / SKILLS

The Engineers trained at Télécom Physique Strasbourg are creative and possess multiple skills, their mission being to meet the challenges of innovation in strategic sectors such as Information and Science and Technology as well as Applied Physics.

The main fields of expertise of our Engineers comprise Physics, Microelectronics, Control Theory and Robotics, Computer Science, Image Processing, Photonics and Engineering or Healthcare.

The educational project of our school enables our graduates to acquire skills that are essential to their professional success. They primarily consist in:

- mastering Information Technology tools
- piloting and managing projects
- acquiring entrepreneurial skills
- developing professional expertise at the international level

CAREER PROSPECTS

- First employment average gross salary: 36 k€ annually
- Average gross salary with 10-year experience: 53 k€ annually
- Average job search time after graduation: less than 2 months for 86% of graduates

* 2018 year group as of February 2019 (Conférence des Grandes Ecoles "Young Graduates" survey in 2019)

INDUSTRIES

- Information and Communication Technology: Siemens, Thales, Alcatel-Lucent Enterprise, ST Microelectronics, Safran, Sagem
- Industry, Infrastructure and Transports: Siemens, EADS, Renault, Daimler AG, Alstom Transport, Valéo, Dassault, PSA
- Energy: EDF, GDF-Suez, Total, Areva
- Healthcare: General Electrics Healthcare, Siemens, Sorin
- Research: Universities, CEA (French Alternative Energies and Atomic Energy Commission), CNES (French National Center for Space Studies), CNRS (National Center for Scientific Research), INRIA (National Institute for Research in Computer Science and Control)
- Computer Engineering Services and Consulting: Accenture, Altran, Capgemini
- Banking, Finance, Insurance: Crédit Mutuel, BNP Paribas, Axa
ADMISSIONS

First year pre-requisites

- A successful highly competitive national exam Concours Communs Institut National Polytechnique in one of the following courses: Mathematics and Physics, Physics and Chemistry, Physics and Engineering Science, Technology and Engineering Sciences
- PASS’ingénieur competitive exam

Second year pre-requisites

- Based on application, French or foreign diploma and successful interview, for applicants holding a Bachelor’s degree (or completed a first-year Master’s course) in Physics / Electronics / Control Theory or a degree equivalent to 240 European Credit Transfer System

COURSES

<table>
<thead>
<tr>
<th>Year</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<tbody>
<tr>
<td>Core curriculum</td>
<td>Mathematics and Signal Processing</td>
<td>Mathematics and Signal Processing</td>
<td>Human Sciences</td>
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<tr>
<td>Tracks</td>
<td>Enterprise</td>
<td>Computer Science</td>
<td>Entrepreneurship</td>
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<tr>
<td>Choice of 2 courses among 7:</td>
<td>Electronics and Embedded Systems</td>
<td>Experimental Physics</td>
<td>Quality</td>
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<tr>
<td></td>
<td>Image, Signals and Data Science</td>
<td>Programmable Electronics</td>
<td>Competitive intelligence</td>
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<tr>
<td></td>
<td>Systems Engineering, Control Theory and Vision</td>
<td>Embedded Systems</td>
<td>Intellectual property</td>
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<tr>
<td></td>
<td>Engineering with Life and Physical Sciences</td>
<td>Instrumentation and Measurements</td>
<td>Intellectual property</td>
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<tr>
<td></td>
<td>Photonics</td>
<td>Robotics and Control Theory</td>
<td>Intellectual property</td>
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<tr>
<td></td>
<td>Physics and Modeling</td>
<td>Image and Vision</td>
<td>2 modern languages</td>
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<table>
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<tr>
<th>Engineering Project</th>
<th>Mathematics and Computer Science Project</th>
<th>4 to 5 students / 1 company / 150 hours per student</th>
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<tbody>
<tr>
<td>Internships</td>
<td>4 weeks minimum of job shadowing</td>
<td>12 weeks minimum of practical internship</td>
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<tr>
<td>Dual Master’s degrees</td>
<td>Imaging, Robotics and Biomedical Engineering</td>
<td>20 weeks minimum on final year project</td>
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<tr>
<td>1 major among:</td>
<td>Systems Engineering, Control Theory and Vision</td>
<td>Imaging, Robotics and Biomedical Engineering / Physics (5 tracks) / Micro and Nano Electronics,...</td>
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</tbody>
</table>

1 major among:

- Systems Engineering, Control Theory and Vision
- Engineering with Life and Physical Sciences
- Image, Signals and Data Science
- Electronics and Embedded Systems
- Photonics
- Physics and Modeling

MOBILITY

- Minimum of 12 weeks in a foreign country and 2 mandatory foreign languages (B2 level required in English)
- Possibility of one complete academic year abroad
- Bilateral agreements and 40 international exchange programs

FURTHER STUDIES

- PhD, Masters in Economics and Management (the related MBA course is offered by the Business School of Strasbourg), MBA, etc.