ECAM STRASBOURG

Welcome to ECAM Strasbourg-Europe

ECAM Strasbourg is an **international** engineering school in the heart of Europe. You can conduct your mobility as an **ERASMUS student** during the fall or spring semesters or your technical project at one of our laboratories. We offer classes in English, French and German throughout the 5 years of our engineering program.
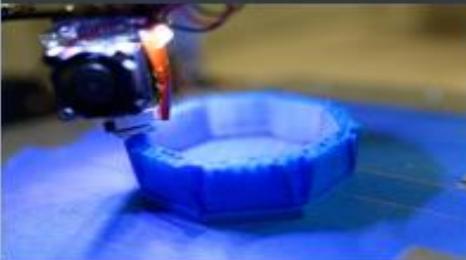
Engineering Projects　　　**Mechatronics Club**　　　**Triple-A Building**

Why would you choose ECAM Strasbourg?

Technical classes in English

- ► Mechanical Eng.
- ► Electrical Eng.
- ► Robotics
- ► Lean Manag.

Living in the heart of Europe

- ► European Capital
- ► International environment
- ► Tri-national region

Active student life in our Campus

- ► Sports
- ► Clubs (yoga, photo, music, barista...)
- ► Conferences

The city of Strasbourg is in the Top 5 student cities in France. This unique international environment is less than two hours away from Paris, Frankfurt, Luxembourg or Basel by TGV (our fast speed train).

If you like bikes, this is your spot! Strasbourg has almost 700km of bicycle lanes. We offer free ECAM bikes to many students.

You can also go hiking on your day off, the Black Forest and the Voges Mountains are 30 minutes away from the school.

Campus France proposes a great guide for incoming students.

Get the guide

ERASMUS Students 2018-19

Why not spending your next semester with us?

Check our program here

Erasmus+

Are you looking for a technical project?

You can conduct your project at ECAM Strasbourg for up to 4 months. If you are interested, just fulfill the document aside and send it to us.

- ► From September to June
- ► Up to 4 months
- ► English, German or French
- ► Validating ECTS

Application Form

Want to know more?

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Study programme

CPII & Engineering Cycle

2019/2020

The Engineering Program offered at ECAM Strasbourg-Europe is a <u>five-year program</u> composed of two main cycles: the CPII (*Cursus Préparatoire avec Immersion à l'International*) and the Engineering Cycle.

The CPII takes 2 years and follows the French national educational program with subjects like Physics, Chemistry and Engineering Sciences. Then, students follow their second year abroad or one semester (4th semester) if they wish.

The Engineering Cycle is oriented Mechanical and Electrical Engineering. Students also have classes in Robotics, Industrial Engineering, Management and Languages.

On top of classes, ECAM Strasbourg-Europe offers laboratory projects in different fields of study, either as a complement or as an isolated assignment. Students can request a laboratory project indicating the number of credits required, the subject of their interest and the foreseen project period by sending an e-mail to: leandro.didomenico@ecam-strasbourg.eu.

International students are likely to integrate the Engineering Cycle, years 3, 4 and 5, from our five-year program. If they want to integrate years 1 or 2, please see page 12.

Third Academic Year   ECAM 3

In bold: the Units with the total number of ECTS credits in parenthesis.

Semester 5 (English)	ECTS English
Computer sciences:	**(2)**
(EC05-Algo) Introduction to algorithm and programming language	2
Material sciences and engineering:	**(4)**
(EC05-Mat) Physics of metallic materials	3
(EC05-Semi) Physics of semiconductors	1
Mechanical engineering:	**(5)**
(EC05-Méca) General Mechanics	2.5
(EC05-ConMéca) Mechanical design	2.5
Industrial engineering:	**(1)**
(EC05-OutIndus-1) Industrial Tools 1	1
Language skills:	**(4)**
(EC05-Ang) English language	2
(EC05-All) German language	2
TOTAL ECTS	**16**

Semester 5 (French)	ECTS French
Scientific Basis:	**(4)**
(EC05-ProbStat) Statistics and Probability	2,5
(EC05-LogCom) Combinational and Sequential Logics	1,5
Electrical engineering and automation:	**(4)**
(EC05-Elecana) Analogical Electronics	2
(EC05-elecTri) Automation	2
Industrial engineering:	**(2)**
(EC05-Initent) Introduction to industrial processes	1
(EC05-ProcIndus) Industrial Procedures	1
Social and Management Skills:	**(4)**
(EC05-GesProj) Project Management	1
(EC05-ProjProf) Professional Project 3	1
(EC05-Accom) Intercultural Support and Engineer's Ethics	1
(EC05-Com) Communication	1
TOTAL ECTS	**14**

Semester 6 (English)	ECTS English
Computer sciences:	**(3)**
(EC06-Prog) Object-oriented programming (Java)	2
(EC06-ProjInfo) Management of computer projects	1
Materials science and engineering:	**(3)**
(EC06-RDM) Theory of material strength	3
Mechanical engineering:	**(4)**
(EC06-MécaSys) Mechanical Assembly and power transmission	2.2
(EC06-ConMeca) Computer Aided Design (CAD)	1.8
Industrial engineering:	**(4)**
(EC06-OutIndus-2) Industrial Tools 2	2
(EC06-GesIndus-1) Industrial management	2
Social and Management Skills:	**(2)**
(EC06-ProjLib) Free project	1
(EC06-Accom) Intercultural Support and Engineer's Ethics	1
Language skills:	**(4)**
(EC06-Ang) English language	2
(EC06-All) German language*	2
6-week internship	**(3)**
TOTAL ECTS	**23**

Semester 6 (French)	ECTS French
Electrical engineering and automation:	**(5)**
(EC06-Moteur) Electric machines	2
(EC06-ProjGEA) GEA Project	1
(EC06-Autom) Automatism	2
Industrial engineering:	**(1)**
(EC06-PropInt) Intellectual property	1
Social and Management Skills:	**(1)**
(EC06-ProjProf) Professional project	0.5
(EC06-Com) Communication	0.5
TOTAL ECTS	**7**

Fourth Academic Year   ECAM 4

In bold: the Units with the total number of ECTS credits in parenthesis.

Semester 7 (English)	ECTS English
Computer Sciences	**(4)**
(EC07-BDD) Introduction to Data Base (SQL)	2,5
(EC07-Archi) Computer Network Architecture and security	1,5
Electrical Engineering and Automation	**(4)**
(EC07-SystEmb) Integrated systems	2
(EC07-ElecPuis) Power Electronics	2
Mechanical Engineering	**(7)**
(EC07-Vib) Vibrations	2,5
(EC07-MEF) Finite Element Method	2
(EC07-MecaFlu) Fluid Mechanics	2,5
Industrial Engineering	**(8)**
(EC07-OutIndus-3) Industrial Tools 3	1,2
(EC07-ProjTech1) Industrial project Part 1	4
(EC07-GesIndus-2) Industrial Management 2	1,8
(EC07-EcoCon) Eco-design to innovation	1
Social and Management Skills	**(3)**
(EC07-GesProj) Project Management	1
(EC07-ProjProf) Professional Project 3	1
(EC07-Accom) Intercultural Support and Engineer's Ethics 3	1
Language Skills	**(4)**
(EC07-Ang) English language	2
(EC07-All) German language	2
TOTAL ECTS	**30**

Semester 8 (English)	ECTS English
Electrical Engineering and Automation	**(3)**
(EC08-Asser) Analog Control Systems and regulations	1
(EC08-CompoProg) Programmable logic devices	1
(EC08-ComNum) Digital Control Systems	1
Materials Science and Engineering	**(3)**
(EC08-Ceram) Polymer and Ceramic	1
(EC08-Trait) Thermal treatment and corrosion	2
Mechanical engineering	**(4)**
(EC08-TransTherm) Heat Transfer	2,5
(EC08-MachinTherm) Thermodynamics	1,5
Industrial engineering	**(8)**
(EC08-Indus) Industrialization	1.2
(EC08-ProjTech2) Industrial project (Part2)	3.5
(EC08-Supply) Supply Chain Management	1.5
(EC08-GesIndus-3) Industrial Management 3	1.8
Social and Management Skills	**(2)**
(EC08-ProjProf) Professional project	1
(EC08-Accom) Intercultural Support and Engineer's Ethics	1
Language skills	**(4)**
(EC08-Ang) English language	2
(EC08-All) German language	2
16-week internship	**(6)**
(4 months)	**6**
TOTAL ECTS	**30**

Fifth Academic Year   ECAM 5

Semester 9 – Common classes (English)	ECTS English
R & D project	**(9)**
(EC09-PRD) Research and development project	9
Economy and Law:	**(2.5)**
(EC09-GesComp) Financial management	1,5
(EC09-Mark) Marketing – Market study	1
Social and Management Skills	**(3)**
(EC09-ProjProf) Professional project	1
(EC09-Accom) Intercultural Support and Engineer's Ethics	0.5
(EC09-Manag) Engineering Management	1.5
Language skills:	**4**
(EC09-Ang) English language	2
(EC09-All) German language	2
TOTAL ECTS	**18.5**

Semester 9 – Common classes (French)	ECTS English
Economy and Law:	**(3.5)**
(EC09-Entrep) Entrepreneurship	1,5
(EC09-Achat) Technical purchasing & Negotiation	1
(EC09-Droit) French labor and company law	1
TOTAL ECTS	**3.5**

On top of *one* of the above-mentioned majors, students will take part in one of the following majors:

Semester 9 – Majors (English)	ECTS English
1. Innovation and Intellectual property	**8**
(EC09-IPI-Strat) Innovation & Strategy	1
(EC09-IPI-Crea) Innovation & Creativity	1,5
(EC09-IPI-Proto) Innovation & Prototypes	3
(EC09-IPI-Réso) Innovation & Solving problems	1,5
(EC09-IPI-Prop) Innovation & Intellectual property	1
2. Management of Industrial Information Systems:	**8**
(EC09-MSII-Lean IT) Lean IT	1,5
(EC09-ERP) ERP and Business intelligence	2
(EC09-MSII-ProjIoT) IoT Project	2
(EC09-Sécu) Security: networks and software	1,5
(EC09-BigData) Big Data for Companies	1
TOTAL ECTS	**8**

Semester 9 – Majors (French)	ECTS French
3. Lean Manufacturing	**8**
(EC09-LM-Culture) Continual improvement	2,5
(EC09-LM-Flux) Flux	2,5
(EC09-LM-Process) Processes	3
4. Materials and Sustainable Development	**8**
(EC09-DD-Juridique) Law and society	1
(EC09-AspectEner) Energy	2
(EC09-AspectMat) Material	2
(EC09-PerfEner) Energy performance	2
(EC09-AspectEco) Economy	1
TOTAL ECTS	**8**

Semester 10	ECTS
21-week internship (6 months)	**30**

The CPII is a unique program in France where students spend the first year at ECAM Strasbourg-Europe and the second year abroad. For some students, they spend only one semester abroad (S4).

This program unifies the technical competences with language skills creating internationally oriented engineers.

Students have the possibility to spend semesters 3 and 4, or only semester 4, abroad in four different linguistic paths:

- German
- English
- Spanish
- French (for non-native speakers of French)

When these students come back from their year abroad, they integrate our third year, the engineering cycle.

First Academic Year CPII

Semester 1 (English)	ECTS English
Electrical engineering and automation:	**(6)**
Electricity	6
Language skills:	**(4)**
English language	2
German language	2

Semester 1 (French)	ECTS French
Scientific basis:	**(12)**
Mathematics 1	7
Physics 1	5
Computer sciences:	**(2)**
Web technologies	2
Mechanical engineering:	**(3)**
Mechanical design (conception) 1	3
Social and Management Skills:	**(3)**
Professional project	1
Intercultural Support and Engineer's Ethics	0.5
Communication	1.5

Semester 2 (English)	ECTS English
Computer sciences:	**(2)**
Industrial Informatics	2
Electrical engineering and automation:	**(6)**
Automatism	2
Electronics 2	4
Language skills:	**(4)**
English language 2	2
German language 2	2

Semester 2 (French)	ECTS French
Scientific basis:	**(12)**
Mathematics 2	7
Physics 2	5
Mechanical engineering:	**(3)**
Mechanical design (conception) 2	3
Social and Management Skills:	**(3)**
Professional project 2	1
Intercultural Support and Engineer's Ethics 2	0.5
Communication 2	1.5

Semester 3 (English)	Hours in English
Computer Sciences:	**(2)**
Informatics	2
Electrical Engineering and Automation:	**(2)**
Embedded Systems	2
Language skills:	**(6)**
English language	2
German language	2
Linguistic Project	2

Semester 3 (English)	Hours in English
Scientific Basis:	**(5)**
Mathematics 2	5
Mechanical Engineering:	**(5)**
Mechanical design (conception) 2	2
Systems	3
Industrial Engineering:	**(6)**
Processes	2
Mechatronics project	4
Material Sciences:	**(2)**
Materials	2
Social and Management Skills:	**(2)**
Professional project 2	1
Intercultural Support and Engineer's Ethics 2	1

Semester 4 is conducted abroad. For the complete program abroad, visit: http://ecam-strasbourg.eu/wp-content/uploads/2017/11/Syllabus-ECAM-CPI-v4.pdf

Version: October 2019

GROUPE ÉCAM