

Study program



CPII & Engineering Program



2023/2024



Icam - Strasbourg-Europe Campus





The Engineering Program offered at Icam - Strasbourg-Europe Campus is a five-year program 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, Icam - Strasbourg-Europe Campus 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@icam.fr

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 10.



Third Academic Year - ICAM3



Semester 5 (Classes in English)	ECTS
Computer sciences 5 <i>(EC05-Algo)</i> Introduction to algorithm and progr. language <i>(EC05-Prog)</i> Object-Oriented Programming (Java) <i>(EC05-ProjInfo)</i> Informatics project management	5 1.5 1.5 2
Electrical engineering 5 <i>(EC05-EleCAO)</i> Electronic CAD	2 2
Industrial engineering 5 <i>(EC05-LeanQua)</i> Lean & Quality <i>(EC05-Proclndus)</i> Industrial Procedure	2 0.75 1.25
Social and Management Skills 5 <i>(EC05-Accom)</i> Intercultural Support and Engineer's Ethics 5 <i>(EC05-IntProj)</i> Intercultural project	5 1 4
Language skills 5 <i>(EC05-Ang)</i> English language 5 <i>(EC05-All)</i> German language 5 (In German) <i>(EC05-FLE)</i> French as a foreign language	8 2 2 4
Project 5 <i>(EC05-EP)</i> Engineering project	6 to 15 ECTS



Semester 5 (Classes in French)	ECTS
Mathematics for engineer 5 (EC05-ProbStat) Statistics and Probability (EC05-LogCom) Combinational and sequential logics	4 2,5 1,5
Electrical engineering 5 (EC05-ElecAna) Analogical Electronics	2 2
Automation 5 (EC05-Autom) Automation	2 2
Power engineering 5 (EC05-Puissance) Power, installations & electrical transformers (EC05-Moteur) Motors	4 2 2
Industrial engineering 5 (EC05-InitEnt) Introduction to industrial processes	1 1
Social and Management Skills 5 (EC05-CareerN) Career Network 5 (EC05-CareerO) Career Orientation 5 (EC05-S3) Soft Skills Seminar 5	2 0.5 0.5 1
Student Engagement 5 (EC05-Engagement) Project 5	2 2



Semester 6 (Classes in English)	ECTS
Materials sciences and engineering 6 (EC06-RDM) Theory of material strength (EC06-Mat) Metallic materials	4 2.2 1.8
Mechanical engineering 6 (EC06-MécaSys) Systems Mechanic (EC06-Meca) General Mechanic	4 2 2
Industrial engineering 6 (EC06-SixSigma) Lean Six Sigma	2 2
Social and Management Skills 6 (EC06-Accom) Intercultural Support and Engineer's Ethics 6 (EC06-IntProj) Intercultural project	4.7 0.7 4
Student Commitment 6 (EC06-Engagement) Project 6	2 2
Enhancement 6 (EC06-SemEXP) Expertise week	2 2
Language skills 6 (EC06-Ang) English language 6 (EC06-All) German language 6 (In German) (EC06-FLE) French as a foreign language	8 2 2 4
Project 6 (EC06-EP) Engineering project	6 to 15 ECTS

Semester 6 (Classes in French)	ECTS
Mechanical design 6 (EC06-GesProMeca) Mechanical Concep. project management (EC06-ConMeca) Mechanical design	5 2 3
Industrial engineering 6 (EC06-PropInt) Intellectual property (EC06-StoMet) Stock & methods	2 0.5 1.5
Social and Management Skills 6 (EC06-CareerN) Career Network 6 (EC06-CareerO) Career orientation 6 (EC06-S3) Soft Skills Seminar 6	2.3 0.6 0.7 1



Fourth Academic Year: ICAM 4



Semester 7 (Classes in English)	ECTS
Materials Science and Engineering 7 (EC07-Trait) Thermal treatment and corrosion	2 2
Electrical Engineering 7 (EC07-SystEmb) Embedded Systems	2 2
Mechanical Engineering 7 (EC07-Vib) Vibrations (EC07-MEF) Finite Element Method	4 2 2
Power engineering 7 (EC07-MecaFlu) Fluid Mechanics (EC07-TransTherm) Heat Transfer (EC07-MachinTherm) Thermodynamics (EC07-TransTherm) Heat Transfer	8 2.5 2 1.5 2
Industrial Engineering 7 (EC07-PrevPlan) Projection & Scheduling (EC07-InnoCon) Innovation & Conception (EC07-Indus) Industrialization (EC07-EcoCon) Eco-design to innovation	6 1.8 1.2 1 2
Project 7 (EC07-ProjTech1) Technical Project 7	4 4
Language Skills 7 (EC07-Ang) English language 7 (EC07-All) German language 7 (EC07-FLE) French as a foreign language	8 2 2 4
Social and Management Skills 7 (EC07-CareerN) Career Network 7 (EC07-CareerO) Career orientation 7 (EC07-S3) Soft Skills Seminar 7 (EC07-Accom) Intercultural Support and Engineer's Ethics 7 (EC07-IntProj) Intercultural project	7 0.5 1 1 0.5 4



Semester 8 (Classes in English)	ECTS
Electrical Engineering 8 (EC08-ElecPuis) Power Electronic (EC08-CompoProg) Programmable Logic Devices	3 2 1
Materials Science and Engineering 8 (EC08-Ceram) Polymer and Ceramic	2 2
Automation 8 (EC08-Asser) Servicing & Regulation (EC08-Instru) Instrumentation	3 2 1
Computer Sciences (EC08-BDD) Introduction to Data Base (SQL) (EC08-Archi) Computer Network Architecture and security	4 2 2
Industrial engineering 8 (EC08-MaintQual) Maintenance & Quality (EC08-Supply) Supply Chain Management	3 1.5 1.5
Social and Management Skills 8 (EC08-IntProj) Intercultural project	4 4
Project 8 (EC08-ProjTech2) Technical Project 8	4 4
Language skills 8 (EC08-Ang) English language 8 (EC08-All) German language 8 (EC08-FLE) French as a foreign language	8 2 2 4
Laboratory project (EC08-EP) Engineering project	6 to 15 ECTS

Semester 8 (Classes in French)	ECTS
Social and Management Skills 8 (EC08-CareerN) Career Network 8 (EC08-CareerO) Career orientation 8 (EC08-Accom) Intercultural Support and Engineer's Ethics 8	2 0.5 0.5 1



Fifth Academic Year: ICAM5



Semester 9 (Classes in English)	ECTS
Economy and Law 9 (EC09-Mark) Marketing – Market study	6 1
Social and Management Skills 9 (EC09-Accom) Intercultural Support and Engineer's Ethics 9	3 0,5
Language skills 9 (EC09-Ang) English language 9 (EC09-All) German language 9 (EC09-FLE) French as a Foreign Language (EC09-IntProj) Intercultural project	11 1,5 1,5 4 4

Semester 9 (Classes in French)	ECTS
R & D Project 9 (EC09-PRD) Research and development project	9 9
Economy and Law 9 (EC09-GesComp) Financial management (EC09-Entrep) Entrepreneurship (EC09-Droit) French labor and company law (EC09-Achat) Technical purchasing & Negotiation	6 1,5 1,5 1 1
Social and Management Skills 9 (EC09-CareerN) Career Network 9 (EC09-CareerO) Career Orientation 9 (EC09-Accom) Intercultural Support and Engineer's Ethics 9 (EC09-Manag) Engineering Management	3 0,5 0,5 0,5 1,5



Semester 9 – Majors (Classes in French)	ECTS
1. Lean Manufacturing (EC09-LM-Culture) Continual improvement (EC09-LM-Flux) Flux (EC09-LM-Process) Processes (EC09-LM-Accom) Personal Assistance (EC09-LM-Performance) Performance	9 2 2 2 1,5 1,5
2. Materials and Sustainable Development (EC09-DD-Juridique) Law and society (EC09-DD-AspectEner) Energy (EC09-DD-AspectMat) Material (EC09-DD-PerfEner) Energy performance (EC09-DD-AspectEco) Economy	9 2 2 1,5 2 1

Semester 9 – Majors (Classes in English)	ECTS
1. Innovation and Intellectual property (EC09-IPI-Inno) Innovation engineering (EC09-IPI-Proto) Robotized assistance project (EC09-IPI-Robot) Industrial Robotics (EC09-IPI-Prop) Innovation & Intellectual property	9 4 3 1 1
2. Management of Industrial Information Systems: (EC09-MSII-Lean IT) Lean IT (EC09-MSII-ERP) ERP and Business intelligence (EC09-MSII-Sécu) Security: networks and software (EC09-MSII-BigData) IoT & Big Data	9 1,5 2 1,5 4

The CPIL Program



The CPIL is a unique program in France where students spend the first year at ICAM - Strasbourg-Europe Campus 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
- Italian
- French (for non-native speakers of French)

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



First Academic Year - CP11



Semester 1 (Classes in French)	ECTS
Mathematics for engineer 1 (EC01-Math) Mathematics 1	6 6
Physics for engineer 1 (EC01-Phys) Physics 1	5 5
Computer sciences 1 (EC01-Web) Web technologies 1	2 2
Electrical engineering and automation 1 (EC01-Elec-1) Electricity	6 6
Mechanical engineering 1 (EC01-CP11-Conception) Mechanical design (conception) 1	3 3
Social and Management Skills 1 (EC01-ProjEnt) Professional project 1 (EC01-Accom) Intercultural Support and Engineer's Ethics 1 (EC01-Com) Communication 1	3 1 0.5 1.5
Student Commitment 1 (EC01-Engagement) Project 1	2 2

Semester 1 (Classes in English)	ECTS
Electrical engineering and automation 1 (EC01-Elec-1) Electricity	6 6
Language skills 1 (EC01-Ang) English language 1 (EC01-All) German language 1 (In German)	3 1.5 1.5



Semester 2 (Classes in French)	ECTS
Mathematics for engineer 2 (EC02-Math) Mathematics 2	6 6
Computer sciences 2 (EC02-InfoIndus) Industrial Informatics	2 2
Electrical engineering and automation 2 (EC02-Elec-2) Electronics	5 3.5
Mechanical engineering 2 (EC02-Conception) Mechanical design (conception) 2	3 3
Social and Management Skills 2 (EC02-ProjEnt) Professional project 2 (EC02-Accom) Intercultural Support and Engineer's Ethics 2 (EC02-Com) Communication 2	2 1 0.5 0.5
Enhancement 2 (EC02-AppMetier) Job's week 2	2 2
Student Commitment 2 (EC02-Engagement) Project 2	2 2

Semester 2 (Classes in English)	ECTS
Physics for engineer 2 (EC02-Phys) Physics 2	5 5
Computer sciences 2 (EC02-InfoIndus) Industrial Informatics	2 2
Electrical engineering and automation 2 (EC02-Autom) Automatism (EC02-Elec-2) Electronics	5 1.5 3.5
Language skills 2 (EC02-Ang) English language 2 (EC02-All) German language 2 (In German)	3 1.5 1.5



Second Academic Year: CP11



Semester 3 (Classes in French)	ECTS
Mathematics for engineer 3 (EC03-Math) Mathematics 3	5 5
Computer sciences 3 (EC03-CP11-Info) Informatics	2 2
Electrical engineering and automation 3 (EC03-CP11-ElecEmb) Embedded Systems	2 2
Industrial Engineering 3 (EC03-CP11-Procédés) Processes	3 3
Social and Management Skills 3 (EC03-CP11-ProjPro) Professional project 3 (EC03-CP11-Accom) Intercultural Support and Engineer's Ethics 3	2 1 1

Semester 3 (Classes in English)	ECTS
Materials Sciences 3 (EC03-CP11-Matériaux) Materials	3 3
Mechanical engineering 3 (EC03-CP11-Conception) Mechanical design 3 (EC03-CP11-Systèmes) Systems	5 2 3
Project (EC03-CP11-Projet) Mechatronic project	4 4
Language skills 3 (EC03-Ang) English language 3 (EC03-All) German language 3 (In German) (EC03-CP11-ProjLing) Linguistic project 3	4 1.5 1.5 1

Semester 4 is conducted entirely abroad.

