

# Study program

Engineering School

2025/2026



Icam - Strasbourg-Europe Campus



The Engineering Program offered at Icam - Strasbourg-Europe Campus is a five-year program composed of two main cycles:

- Preparatory Cycle : Year 1 and 2
- Engineering Cycle : Year 3, 4 and 5

The Preparatory Cycle follows the French national educational program with subjects like Physics, Chemistry and Engineering Sciences. The second-year students follow either one or two semesters abroad. This program unifies technical competences with language skills creating internationally oriented engineers.

The Engineering Cycle is oriented to 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: [international.strasbourg-europe@icam.fr](mailto:international.strasbourg-europe@icam.fr)



## Preparatory Cycle - First Academic Year



Semester 1	ECTS	Language
<b>Mathematics for engineers 1</b> (EC01-PIPNA-MathFond) Fundamentals of Mathematics (EC01-PIPNA-MathAna) Analysis (EC01-PIPNA-Mathalg) Algebra	1 3 2	French French French
<b>Physics for engineers 1</b> (EC01-PIPNA-MécaPoint) Mechanics of Particles (EC01-PIPNA-Thermo) Thermodynamics	3 3	French French
<b>Computer sciences 1</b> (EC01-PIPNA-Bureautique) Office computer tools (EC01-PIPNA-Algo) Algorithmics	1 1	French French
<b>Electrical engineering and automation 1</b> (EC01-PIPNA-Elec-1) Electric Circuits	6	French
<b>Mechanical engineering 1</b> (EC01-PIPNA-Conception) Mechanical design and CAD	3	French
<b>Economy and law 1</b> (EC01-PIPNA-ProjEnt) Entrepreneurship project	1	French
<b>Social and Management Skills 1</b> (EC01-PI-Accom) Intercultural Support and Engineer's Ethics (EC01-PIPNA-Com) Communication (EC01-IR) Intercultural report	1 2 4	French French French or English
<b>Student Commitment 1</b> (EC01-PIPNA-projEnga) Project in Commitment	2	French
<b>Language skills 1</b> (EC01-PIPNA-Ang) English language (EC01-PI-All) German language (EC01-PI-Esp) Spanish language (EC01-FLE) French as a Foreign Language	2 2 2 4	English German Spanish French



Semester 2	ECTS	Language
<b>Mathematics for engineers 2</b> (EC02-PIPN-MathAlg) Algebra (EC02-PIPN-MathAna) Analysis	3 3	French French
<b>Mechanical engineering 2</b> (EC02-PIPN-Conception) Mechanical design and CAD	3	French
<b>Economy and Law 2</b> (EC02-PIPN-ProjEnt) Entrepreneurship project	1	French
<b>Social and Management Skills 2</b> (EC02-PI-Accom) Intercultural Support and Engineer's Ethics (EC02-PIPN-Com) Communication (EC02-IR) Intercultural report	1 1 4	French French French or English
<b>Internship 2</b> (EC02-PI-ProjPro) Professional project (EC02-PIPN-Stage) Internship	1 2	French French
<b>Student Commitment 2</b> (EC02-PIPN-ProjEnga) Project in commitment	2	French
<b>Physics for engineers 2</b> (EC02-PIPN-Electromag) Electromagnetism (EC02-PIPN-MécaSol) Rigid Body Mechanics	3 3	French English
<b>Computer sciences 2</b> (EC02-PI-InfoIndus) Industrial Informatics	2	English
<b>Electrical engineering and automation 2</b> (EC02-PIPN-Autom) Automatism (EC02-PIPN-Elec-2) Electronics	2 4	English English
<b>Language skills 2</b> (EC02-PIPN-Ang) English language (EC02-PI-All) German language (EC02-PI-Esp) Spanish language (EC02-FLE) French as a Foreign Language	2 2 2 4	English German Spanish French



## Preparatory Cycle - Second Academic Year



Semester 3	ECTS	Language
<b>Mathematics for engineers 3</b> (EC03-PIPN-Math) Mathematics	5	French
<b>Computer sciences 3</b> (EC03-PI-ProgEmb) Embedded programming	2	French
<b>Electrical engineering and automation 3</b> (EC03-PI-ElecEmb) Embedded Systems	2	French
<b>Industrial Engineering 3</b> (EC03-PI-Procédés) Manufacturing Processes	3	French
<b>Social and Management Skills 3</b> (EC03-PI-Accom) Intercultural Support and Engineer's Ethics (EC03-IR) Intercultural report	1 4	French French/English
<b>Materials Sciences 3</b> (EC03-PIPN-Matériaux) Materials	3	English
<b>Mechanical engineering 3</b> (EC03-PI-Conception) Mechanical design and CAD (EC03-PI-Méca général) Engineering Mechanics	2 4	English English
<b>Project 3</b> (EC03-PI-ProjetRobot) Robotic project	4	English
<b>Language skills 3</b> (EC03-PIPN-Ang) English language (EC03-PI-AII) German language (EC03-FLE) French as a Foreign Language (EC03-PI-ProjLing) Linguistic project	2 2 4 1	English German French English

→ **No incoming mobilities during Semester 4.**



## Engineering Cycle - Third Academic Year



Semester 5	ECTS	Language
<b>Electrical engineering 5</b> (EC05-Converters) Power converters and electric machines (EC05-Fundamentals) Fundamentals, Physical Parameters and Components (EC05-Power) Power generation Network and Distribution (EC05-LowPower) Low Power Systems	1 1 1 1	English English English English
<b>Energy, Environment and Life Sciences 5</b> (EC05-Analyse) Environmental analysis (EC05-Fluides) Fluid mechanics (EC05-Semaine) Integral ecology week	1 2 1	English English French/English
<b>Mechanical engineering and materials 5</b> (EC05-RDS) Resistance of Structures (EC05-Mat) Materials (EC05-Elasticity) Elasticity	1 3 2	French/English English English
<b>People and Organization Management 5</b> (EC05-Economy) Economic and Social Environment (EC05-Performance) Industrial performance tools	1 1	English English
<b>Mathematics, Computer Science, Automation 5</b> (EC05-Automatics) Linear Control System (EC05-Data) From Spreadsheets to Databases (EC05-Optimization) Optimization and Approximation	1 1 1	French English English
<b>Humanities 5</b> (EC05-Cultures) Cultural identities and Globalization (EC05-Ang) English language (EC05-All) German language (EC05-FLE) French as a foreign language (EC05-IR) Intercultural report	2 2 2 4 4	French English German French French/English
<b>Project 5</b> (EC05-Proj) Mechatronic project	5	English



Semester 6	ECTS	Language
<b>Electrical engineering 6</b> (EC06-Converters) Power converters and electric machines (EC06-Automated) Automated Smart Systems (EC06-LowPower) Low Power Systems	1 1 1	French English English
<b>Energy, Environment and Life Sciences 6</b> (EC06-Fluides) Fluid mechanics (EC06-Conversion) From the resource to its conversion (EC06-Thermique) Heat Transfer	1 2 1	English English French/ English
<b>Mechanical engineering and materials 6</b> (EC06-Mat) Materials (EC06-ElementsFinit) Finite Elements (EC06-Dynamique) Dynamics	3 2 2	English English French/ English
<b>People and Organization Management 6</b> (EC06-MacroEco) Macro-economics (EC06-SysManag) QHSE & CSR Management Systems	1 1	French French/ English
<b>Mathematics, Computer Science, Automation 6</b> (EC06-AIOT) Artificial Intelligence for Objects	3	French
<b>Humanities 6</b> (EC06-Cultures) Cultural identities and Globalization (EC06-Ang) English language (EC06-AII) German language (EC06-FLE) French as a foreign language (EC06-IR) Intercultural report	2 2 2 4 4	French English German French French/ English
<b>Project 6</b> (EC06-Proj) Mechatronic project (EC06-Recherche) Research Week Awareness Campaign	3 1	English French



## Engineering Cycle - Fourth Academic Year



Semester 7	ECTS	Language
<b>Electrical Engineering 7</b> (EC07-SystEmb) Embedded Systems	2	English
<b>Materials Science and Engineering 7</b> (EC07-Trait) Heat treatments and corrosion	2	English
<b>Mechanical Engineering 7</b> (EC07-Vib) Vibrations (EC07-MEF) Finite Element Method	2 2	English English
<b>Energetic engineering 7</b> (EC07-MecaFlu) Fluid Mechanics (EC07-TransTherm) Heat Transfer & Heat Exchangers (EC07-MachinTherm) Thermodynamics and Heat Engines	3 2 2	English English English
<b>Industrial Engineering 7</b> (EC07-InnoEco) Innovation & Eco Design (EC07-PrevPlan) Forecast & Planning (EC07-Indus) Industrialization	2 2 2	English English English
<b>Technical Project 7</b> (EC07-ProjTech1) Technical Project	4	English
<b>Human and Managerial training 7</b> (EC07-Accom) Cultural and Engineering Ethics (EC07-IR) Intercultural report	1 4	French French/English
<b>Language Skills 7</b> (EC07-Ang) English language (EC07-All) German language (EC07-FLE) French as a foreign language	2 2 4	English German French
<b>Engineering Project 7</b> (EC07-EP) Engineering project	<b>5 to 15</b> ECTS	French/English



Semester 8	ECTS	Language
<b>Computer Sciences 8</b> (EC08-Archi) Network Architecture and security (EC08-BDD) Databases	2 2	English English
<b>Automation 8</b> (EC08-Asser) Analog Control of Systems (EC08-Instru) Instruments	2 1	English English
<b>Electrical Engineering 8</b> (EC08-CompoProg) Programmable Components (EC08-ElecPuis) Power Electronics	1 2	English English
<b>Materials Science and Engineering 8</b> (EC08-Ceram) Polymer and Ceramic Materials	2	English
<b>Industrial engineering 8</b> (EC08-Supply) Supply Chain Management and Distribution (EC08-MaintQual) Maintenance & Quality	2 2	English English
<b>Technical Project 8</b> (EC08-ProjTech2) Technical Project	4	English
<b>Human and Managerial training 8</b> (EC08-Accom) Cultural and Engineer's Ethics (EC08-IR) Intercultural report	1 4	French French/English
<b>Language skills 8</b> (EC08-Ang) English language (EC08-Ali) German language (EC08-FLE) French as a foreign language	2 2 4	English German French
<b>Engineering Project 8</b> (EC08-EP) Engineering project	<b>5 to 15</b> ECTS	French/English



## Engineering Cycle - Fifth Academic Year



Semester 9	ECTS	Language
<b>Economic and Legal Sciences 9</b> (EC09-Mark) Market study (EC09-GesComp) Accounting management (EC09-Entrep) Entrepreneurship (EC09-Achat) Technical purchasing & Negotiation (EC09-Droit) French labor and company law	1 2 2 1 1	English French French French French
<b>Social and Management Skills 9</b> (EC09-Accom) Cultural and Engineer's Ethics (EC09-Manag) Engineering Management (EC09-IR) Intercultural report	1 2 4	French French French/English
<b>Language skills 9</b> (EC09-Ang) English language or TOEIC preparation (EC09-Ali) German language or WiDaf preparation (EC09-FLE) French as a Foreign Language	2 2 4	English German French
<b>R &amp; D Project 9</b> (EC09-PRD) Research and development project	9	French
<b>Engineering Project 9</b> (EC09-EP) Engineering project	<b>5 to 15</b> ECTS	French/English

Semester 9 Majors - Classes in French	ECTS
<b>Lean Manufacturing – LM</b> (EC09-LM-Culture) Continual improvement (EC09-LM-Flux) Flux (EC09-LM-Process) Processes (EC09-LM-Accom) Coaching (EC09-LM-Performance) Performance Optimization	2 2 2 1,5 1,5
<b>Materials and Sustainable Development - MDD</b> (EC09-DD-Juridique) Law and society : ISO 26000 (EC09-DD-AspectEner) Energy (EC09-DD-AspectMat) Material (EC09-DD-PerfEner) Energy performance (EC09-DD-AspectEco) Economy	2 2 2 2 1



## Grading System



0	10	20
0 worst	<10 Failed	$\geq 10$ passed
		20 best

→ 10 is needed to pass the exam.

→ The best grade is 20.

The grades are given as follow:

A: best 10%

B: next 25%

C: next 30%

D: next 25%

E: next 10%.

FX: non-sufficient, result between 10 and 9

F: non-sufficient, result between 9 and below

