



ÉCOLE D'INGÉNIEURS

GRADUATE ENGINEERING SCHOOL

Computer Engineering Program

France



Commission
des titres d'ingénieur



ENSEIGNEMENT
SUPÉRIEUR PRIVÉ
D'INTÉRÊT GÉNÉRAL
LOI DU 22.07.2013



TWO CAMPUSES: ANGERS AND AIX-EN-PROVENCE



West Campus (Angers)



Mediterranean Campus (Aix-en-Provence)

DIGITAL ENGINEERING CYCLE: FACTS



ONE SPECIALISATION
during the 4th year

- An engineering diploma recognized by the **Commission for Engineering Qualifications (CTI)**;
- Two years after GCE Advanced Level;
- **Teamwork** and many **projects** to work on as a group;
- A choice to make between 3 **specializations**;
- A choice to specialize in one **business sector**;
- Entrepreneurship, business and innovation at the heart of the program.

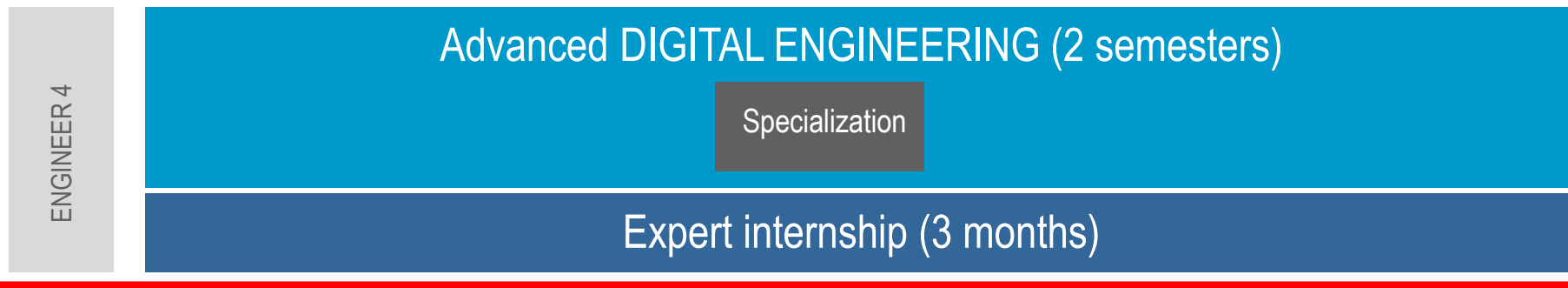
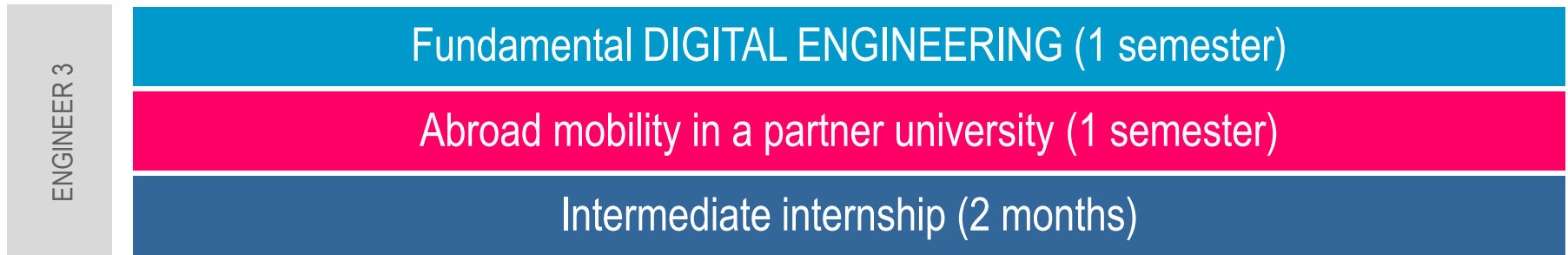
ABOUT THE SPECIALIZATIONS

- Cybersecurity and Networks;
- Big Data and Data Science;
- Artificial Intelligence.

Your goals:

- **Cybersecurity and Networks:** Identify the weak points of an IS and secure it. Raise awareness about cybersecurity among the users.
- **Big Data and Data Science:** collect and stock data, use innovative algorithms and read into it to help make strategic decisions.
- **Artificial Intelligence:** Create algorithms to develop image recognition, speech and automation.

DIGITAL ENGINEERING CYCLE



SPRING SEMESTER (S8)

*In Year 4, **S8** of Digital Engineering will deepen the knowledge you have acquired on the last semester. Here are examples of courses that you will be able to take part in:*

ORGANISATION MANAGEMENT: *This unit deepens your understanding of **Linear Programming, Statistics and Probabilistic Modelling**.*

PROJECT MANAGEMENT: *This unit will have you conduct a **scientific research project**. You will also develop your knowledge in the **specialization** you chose.*

ENTERPRISE: ***Written and Oral Communication** will help you develop your skills in companies, while **Financial and Client-Relation Management** is meant for you to understand the professional world you will evolve in.*

CORE COURSES – 2022/2023 SPRING SEMESTER

Education Unit	Content	Coefficient	ECTS	Nb of Sessions	Hours
EU S8-1 Sciences	Linear Programming	1	3	12	18
	Statistics and Probabilistic Modelling	1		12	18
EU S8-2 Development & Networks	Mobile Development	1	5	12	18
	Linux System Administration	1		14	21
	Windows System Administration	1		14	21
	Introduction to virtualisation	1		14	21
	PL/SQL database	1		12	18
EU S8-4 Projects	Research Scientific Project	1	3	12	
	Major Project	2		32	
EU S8-5 Majors	Majors Courses	1	6	70	105
EU S8-6 Enterprise & Project Management	Information System Quality	1	6	10	15
	Written and Oral Communication	2		16	24
	Financial Management	2		14	21
	Client Relation Management	1		8	12
	Enterprise Social Responsibility	1		8	12
	Conferences	2		16	24
EU S8-7 International culture	French	1	2	24	36
EU S8-8 Minors	Business Sectors	1	2	16	
TOTAL			27	316	384

SPECIALISATION COURSE: BIG DATA

EU	CONTENT	Coeff	ECTS	nb of sessions	Hours
UE S8-5 Big Data Major	Open data	1	6	14	21
	Big data	1		14	21
	Data engineering and analysis	1		14	21
	Java EE & Hibernate	1		14	21
	Business intelligence	1		14	21
TOTAL				70	105

- *Oracle administration, data visualization, machine learning, document-oriented database, Project in big data...*

SPECIALISATION COURSE: CYBERSECURITY

EU	CONTENT	Coeff	ECTS	nb of sessions	Hours
UE S8-5 Cybersecurity Major	Risk Analysis & Security Policy	2	6	18	27
	Pen Testing	3		24	36
	Secure Programming	2		14	21
	Security Management	2		14	21
TOTAL				70	105

- *LAN/WAN network, Certified Ethical Hacker, risk analysis and security policy, digital investigation, pentesting, secure programming, project in cybersecurity...*

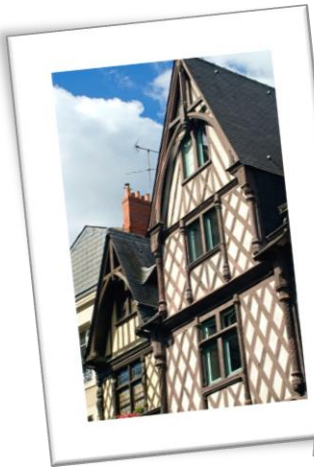
SPECIALISATION COURSE: ARTIFICIAL INTELLIGENCE

EU	CONTENT	Coeff	ECTS	nb of sessions	Hours
UE S8-5 Artificial Intelligence Major	Deep learning	4	6	18	27
	Reinforcement Learning	3		14	21
	Human Language Technology	2		10	15
	Data Engineering and Analysis	3		14	21
	Edge Computing	3		14	21
TOTAL				70	105

- *Smart application, data visualization, machine learning, ethics and AI, learning and vision, project in artificial intelligence...*

ANGERS

- A human-scale and dynamic student town;
- The historical heart of the Maine-et-Loire region, with many castles and museums;
- Close to nature, at a 10-minute walk from lakes and natural spaces. Common transportation or clean transportation such as the bike and an efficient bus network;
- Ranked 1st in terms of quality of life among the best cities in France;
- Many places to party such as pubs, concert halls and cinemas to meet the youth and join the fun in Angers.



EXCELLENCE AND INTERNATIONAL AT THE ESAIP

- 1000 students;
- **300 international students** a year.
- High-level **scientific and technical training**;
- **50%** of international courses in our programs;
- **100% of students** go on study abroad trips;
- Solid partnerships with **95 universities** around the world (Europe, China, Africa, America)...
- More than 30 associations and clubs



Erasmus+

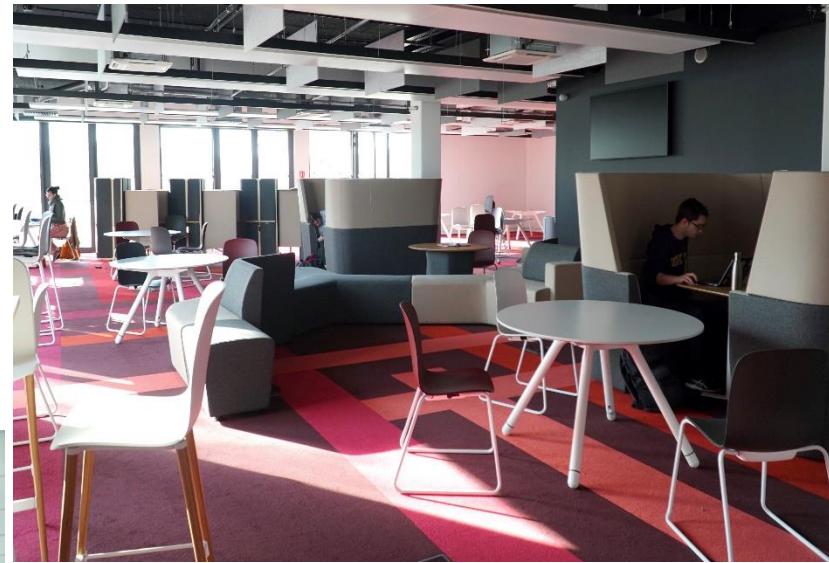


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ESAIP'S EXCEPTIONAL PREMISES

- High-quality laboratories and **brand-new** co-working spaces;
- Luminous rooms to group-study;
- Qualified teachers and experts to help you accomodate to life on campus.
- Access to Angers campus in 15 minutes by bus (direct line from downtown).



QUESTIONS



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