

INSA

INSTITUT NATIONAL
DES SCIENCES
APPLIQUÉES
LYON

INNOV@INSA 2021

MAY 18th TO JUNE 15th



INSA LYON ENGINEERING SCHOOL

Founded in 1957, INSA Lyon is one of France's leading Engineering Schools and counts more than 6,200 students out of which 1,700 are international - a point that was recognized in the last 2020 QS World University Ranking*. INSA Lyon is known for its high level of training but also its strong humanist values and rich campus life (largest Student Union in France). Most students are spread throughout 9 engineering departments (Master's degree students) and 8 doctoral schools (PhDs).

Internationalization is a prime concern, many courses are offered in English and international profiles increase yearly.

**Rank 130 out of 1620 universities in the International Student indicator*

SINCE 2016 > 182 STUDENTS FROM 24 UNIVERSITIES



INSA LYON SHORT PROGRAMS

INSA Lyon has launched 4 short programs in order to meet international expectations :

- SMART Lyon in February-March (2 weeks)
- INNOV@INSA in May-June and in June-July (4 weeks)
- Energ'INSA in January-February (3 weeks) **NEW**

Students experience a short-term program at INSA Lyon, located in France's Capital of Gastronomy. They will learn new skills, earn credits while creating bonds and expanding their network. Our short programs are a stepping stone for further studies and a boost for their career.

SCHEDULE*

MAY 2021

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
17 th	18 th	19 th	20 th	21 st	22 nd	23 rd
Check in between 8 ^{am} and 6 ^{pm}	Welcome Session Activity 1	Classes	Classes	Activity 2 - Day trip	Free	Free
24 th	25 th	26 th	27 th	28 th	29 th	30 th
Bank Holiday	Classes Activity 3	Classes	Classes Activity 4	Classes	Free	Free
31 th						
Classes						

JUNE 2021

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
	1 st	2 nd	3 rd	4 th	5 th	6 th
Classes	Activity 5 Day trip	Classes	Activity 6	Classes	Free	Free
7 th	8 th	9 th	10 th	11 th	12 th	13 th
Classes Activity 7	Classes	Classes	Classes	Classes	Free	Free
14 th	15 th					
Classes	Wrap-up Session Check out between 12 ^{pm} and 3 ^{pm}					

* schedule is subject to change

GET READY!

IMPORTANT DATES



APPLICATION PERIOD

November 30th - March 1st

REGISTRATION

March 9th - March 29th

PAYMENT DUE

April 16th

STUDENTS' ARRIVAL*

May 17th

CLASSES

May 18th to June 15th
at 12pm

*Please note that you should arrive between 8am and 6pm

COURSES — 6 US-CREDITS/12 ECTS CREDITS

Students will have to choose between track 1 or 2. Track 3 is mandatory. Some courses may change slightly, please refer to the detailed syllabus on www.insa-lyon.fr/en/innovinsa-may-june.

LEARNING OBJECTIVES

1. CONNECTED DEVICES AND SMART DEVICES (45 hrs. lectures) - 3 US-CREDIT / 6 ECTS CREDITS

PREREQUISITE : Algorithmics and any programming language

Part I: Introduction to the Internet of Things

- To provide an overview of the concepts and challenges of the Internet and its ever-evolving ability to interconnect people, processes, data, and things that we call the Internet of Things. The course is practical, and case-study based.
- To enhance learning and retention, this course introduces practical “how-to” guidance, tools and design methods that students can apply immediately through various labs and tutorials. Classes will typically consist of lectures, guest speakers from both industrial and academic backgrounds, rapid prototyping tools, in-lab exercises, and discussions of case studies.

Part II: Connected Device and Platform Group Project

Students will collaborate with classmates on an IoT-related group project, where they will build both a connected device and a platform providing a service in the application field of their choice.

2. MANAGEMENT & INNOVATION IN EUROPE *[45 hrs. lectures] - 3 US-CREDIT / 6 ECTS CREDITS*

Each team will have to create a customer centric offer, including new technological solutions, for solving an observed problem in a given universe. Ideally students will be encouraged to create a social impact business. They will investigate the French / European markets and prepare the launching strategy of a new offer.

Part I - Introduction to Project Management of Innovative Products & Services

- Learning the concepts and solutions required for successful completion of a project
- Team management will also be covered by presenting various methods and leadership styles a team manager can undertake to increase personal productivity and build an effective team

Part II - Economics & Management of Innovation in Europe

- Gain an excellent understanding of classic and recent trends on the economics of innovation in European countries

Part III - Essential Skills for Entrepreneurs in Innovation-driven Start-ups

The course focuses on entrepreneurial behavior, the ability to create, maintain and enhance a network of European contacts facilitating the development of innovative projects. The course is designed around:

- Short workshops on the main tools used in entrepreneurship in small teams ; the students will have to conduct an innovative project.
- Game, CIBUM challenge: From Creativity to Innovation and to BUiness Model.

3. FRENCH LANGUAGE, CROSS-CULTURAL COMMUNICATION, INDUSTRY AND SOCIETY *[45 hrs. lectures] - 3 US-CREDIT / 6 ECTS CREDITS*

Please specify your level in French when applying

Part I - Introduction to French Language and Culture

The focus of this unit will be on the oral French used in daily life. Using action-based language teaching methods, this class will require the students to use the French they learn during class activities and on-site situations. The overall goal is to introduce the students to various cultural aspects of life in Lyon.

Part II - Developing Intercultural Competence

Using interactive teaching tools such as student-led discussions, debates and interviews. This section of the course aims to build the knowledge base and the cultural empathy necessary to increase the students' ability to perceive, analyze and understand cross-cultural differences.

Part III - Industry and Society

Using a case-study approach, we will use our location in Lyon, France's « Second biggest city », as a base for studying the impact of different industries on society and social institutions over time. The students will acquire a knowledge base which will significantly add to what the French refers to as their 'culture générale', a prerequisite for anyone who wants to be considered well-educated.

CONTENT

1. CONNECTED DEVICES

Part I – Introduction to the Internet of Things

- Introduction to the Internet of Things:
- Introduction to connected devices:
- Introduction to data collection and processing:
- Technical introduction: Python, HTTP, MQTT and HTML.

This is an entry-level course and the only prerequisites are some knowledge and practical experience of computer programming.

Students will also visit one or more local industrial actors in the field of the Internet of Things in the city of Lyon and attend on-site demonstrations of innovative IoT-related products.

Part II: Connected Device and Platform Group Project

The project will be structured as follows:

- Creativity session: Students will decide on an application field (e.g., health, smart cities, etc.) and an outline of the project.
- Implementation:
 - Technical architecture: Students will architect the solution that will be deployed in their project
 - Technical implementation: Working in small groups, students will implement their solution using the provided materials
- Presentation: Students will present their project, more particularly:
 - What problem is their project trying to solve?
 - What is the technical architecture? How was teamwork divided?
 - What are business use cases that could fit their project?

FINAL EVALUATION

Multiple choice quiz (30% of the grade) related to Part I.

Project evaluation (70%) based on an oral presentation. The evaluation will factor in project results, presentation quality and implication.

2. MANAGEMENT & INNOVATION IN EUROPE

Part I - Introduction to Project Management of Innovative Products & Services

- Challenges in cross-cultural design
- Mind mapping
- Defining the project
- Developing a project plan
- Reducing project duration
- Team decision making
- Risk management
- Leadership styles
- Team work and decision making
- Creativity and open mindedness
- Market investigation

FINAL EVALUATION

The evaluation is based on class exercises on project management. Moreover, students will expose the organization of their team, tools and project management method implemented in the CIBUM challenge and the decisions they have made and the difficulties they have overcome.

Part II - Economics & Management of Innovation in Europe

Overview of the European economic history:

- European firms' R&D and innovation behavior
- Innovation processes of services and products in a European context
- European economics of entrepreneurship and innovation
- Legislation for innovation in Europe
- French economic entrepreneurship ecosystem
- Innovation and marketing in IT in Europe
- Innovation business finance in Europe

FINAL EVALUATION

The evaluation is based on a quiz relative to the content of this section on an individual basis.



2. MANAGEMENT & INNOVATION IN EUROPE

Part III - Essential Skills for Entrepreneurs in Innovation-driven Start-ups

- Main tools of innovation and entrepreneurship
- Design thinking
- Creativity methods
- Eco-conception
- Blue ocean strategy
- Competitive positioning mapping
- Social impact business
- Eco-conception basics
- Communication strategy

FINAL EVALUATION

At the end of the course each team will have to pitch their value creation in front of «potential investors».



3. FRENCH LANGUAGE, CROSS-CULTURAL COMMUNICATION, INDUSTRY AND SOCIETY

Part I - Introduction to French Language and Culture

Examples of on-site activities:

- A neighborhood treasure hunt: finding your way around and learning about the neighborhood
- Discovering French lifestyle, shopping at a street market, going to a café...

Some of the linguistic tools necessary:

- Greeting and taking leave
- Introducing yourself
- Describing where you are and how to get where you are going
- Express your preferences and personal tastes
- Sample, order, purchase, pay

FINAL EVALUATION

The students will go on a shopping trip to Les Halles de Lyon with their teachers where they will be expected to use the language skills they have acquired during their classes.

Part II - Developing Intercultural Competence

Discussions about :

- Stereotypes and Mindsets
- Social Behavior and Personal vs Public Space
- Education in France and abroad

FINAL EVALUATION

MEDIA PROJECT: Students submit entries to a collective blog in which they record both the facts of their experience and their personal reflections on its significance.

Part III - Industry and Society

On-site visits, industrial and architectural landscapes and their social consequences :

- DOWNTOWN LYON
- CROIX-ROUSSE DISTRICT

FINAL EVALUATION

Written evaluation asking students to apply analytic tools learned to an original case study.



HOW TO APPLY

1

APPLICATION



Contact the short programs coordinator in your university. He/she will gather your nomination and send it to INSA Lyon. Required documents to apply : cover letter + resume + copy of your passport

2

ACCEPTANCE BY INSA LYON



All the applications will be reviewed within a week. INSA Lyon will then contact you for payment and registration. A letter of acceptance will be sent to you at the same time. In case you need a visa, please ask INSA Lyon for an invitation letter.

3

REGISTRATION



When your application is accepted, you will have to send a copy of your passport and an ID photo. Make sure your passport (or ID card for EU students) is valid for your trip to France.

4

PAYMENT



A contract will be established between you and INSA Lyon. Once you have signed the contract, you will receive an invoice to proceed with the payment before April 16th via wire transfer. If your university collects payments, please contact the coordinator in your university.

Don't forget to ask for a visa if needed.

More information on <https://www.diplomatie.gouv.fr/en/coming-to-france/Lyon>.

FEES

EXCHANGE STUDENTS*

Tuition fees waived

Program fees €2100

TOTAL €2100

FEE-PAYING STUDENTS*

Tuition fees €3250

Program fees €2100

TOTAL €5350

PROGRAM FEES INCLUDE

- ✓ Accommodation
- ✓ All meals (except some meals during the weeks at INSA Lyon)
- ✓ Activities
- ✓ Transportation during the program

Please refer to our terms and conditions about cancellation and refund on: www.insa-lyon.fr/en/short-programs

**check with your university for more details*

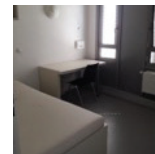
PRACTICAL INFORMATION

ACCOMODATION

For a part of your stay, host families will welcome you in Lyon to have a glimpse of the French way of life.*

As for the other part, you will be living in one of the INSA residences. You will share a double room with another student taking part in the summer program. Your room is equipped with a small kitchen, a fridge, a kettle, cups, coffee and tea. There is a bathroom in each room (no hair-dryer). You will be given 4 tokens for the laundry service. Ethernet wires are provided for Internet access in your room.

**depending on the host families' availability*



CATERING

There are 5 restaurants on INSA campus with catering available for breakfast, lunch and dinner.

TRANSPORT

Shuttle tickets from the airport to the city center are provided. We will arrange your transfer to the campus.

6 ACTIVITIES* INCLUDED IN THE PROGRAM

GUIDED VISIT OF LYON, THE CAPITAL OF THE GAULS

You will discover the city center, the Vieux-Lyon, listed as UNESCO World Heritage, and its hidden passageways known as "traboules".



DAY TRIP TO ANNECY, THE VENICE OF THE ALPS

You will visit the city and the medieval heart of Annecy, enjoy a view from the top of a castle, walk around the lake and stroll along the canals.



ONGOING EVENTS IN LYON

- 24h de l'INSA, biggest student festival in France
www.24heures.org
- Nuits Sonores, electronic music festival
www.nuits-sonores.com
- Nuits de Fourvière, major performing arts festival :
June to July, dates tbd
www.nuitsdefourviere.com

**aside from the program*

**activities are subject to change*



COOK LIKE A CHEF

As Lyon is the capital of gastronomy and France known for its good food, you will take part in a cooking activity coached by professionals. You will learn how to make macarons and typical French pastries. Yum!

WINE AND CHEESE, THE PERFECT MATCH

What would be France without wine and cheese? Have a tasty experience with the INSA Wine Club and discover how wine and cheese match together, while having a great time with French students. Did you say cliché?

TASTE LYON'S SPECIALITIES

Coming to Lyon without eating in a « bouchon lyonnais », is like visiting Paris without seeing the Eiffel Tower ! Have a pleasant dinner in a typical restaurant called "bouchon", in a warm atmosphere and an authentic scenery.

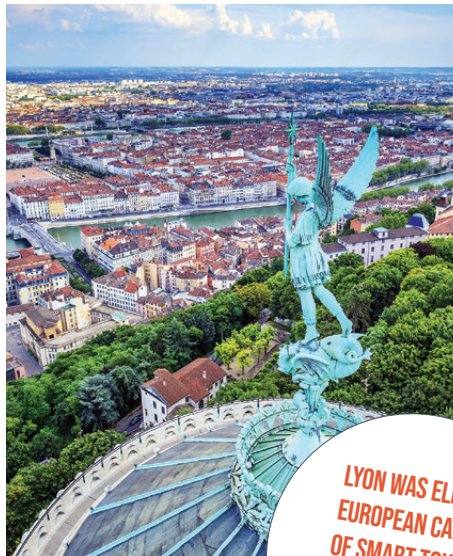
DAY TRIP TO TAIN L'HERMITAGE

Fancy some chocolate? You will visit the Cité du Chocolat and learn all about chocolate during a fun workshop. Then, to end the trip smoothly, you will visit a beautiful wine cellar, to experiment with your five senses.



5 MUST-DO EXPERIENCES IN LYON*

- Take the funicular to the basilica Notre-Dame of Fourvière
 - Visit the Lumière Museum, where cinema was born
 - Enjoy a cruise on the Saône river
 - Have a meal rue Mercière, the foodies street
 - Ride a bike along the Rhône river banks
- *aside from the program*



**LYON WAS ELECTED
EUROPEAN CAPITAL
OF SMART TOURISM
IN 2019 BY THE EU!**
> smarttourismcapital.eu

MAP OF INSA LYON



- 1 International Relations Office
- 5 Student Centre
- 2 Registrar's Office & Social Worker's Office
- 6 Athletic Centre
- 3 Residence Dept.
- 7 Library
- 4 « Humanités » FLE
- 8 Restaurants

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