



Spring 2025

Minors
and
Projects



Soirée de gala

- De 20h00 à 2h00, juste après la cérémonie de remise des diplômes
- Une soirée exceptionnelle organisée par vos assos étudiantes
- Menu gourmet, bar et boissons, DJ live et piste de danse, animations...



1er février 2025



Hôtel Aston



35,50€

pour une valeur de *105€/personne*



respo-communication@juniormiageconcept.com

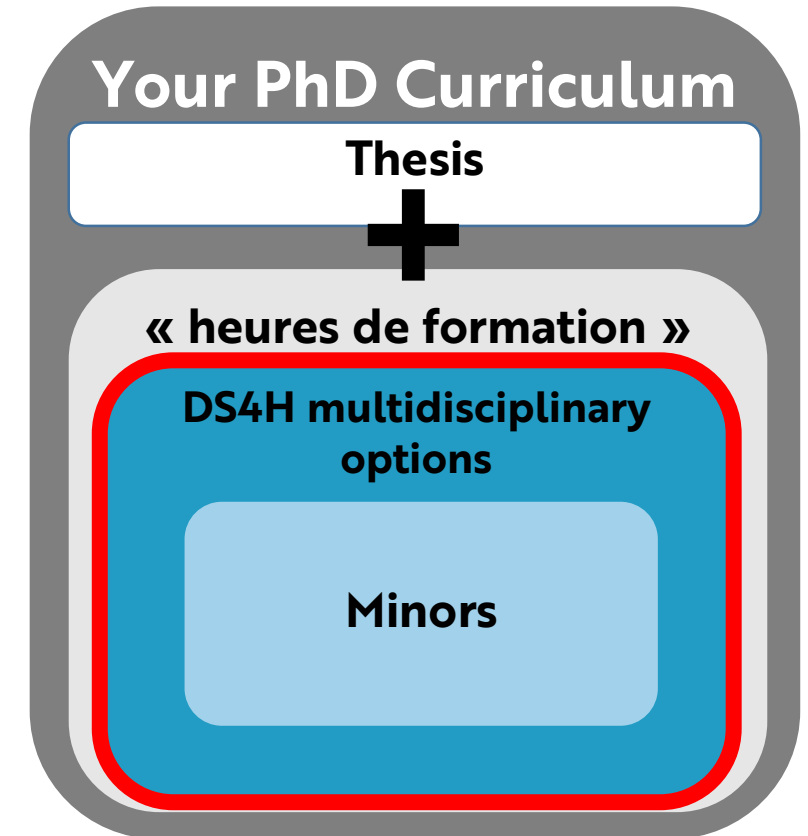
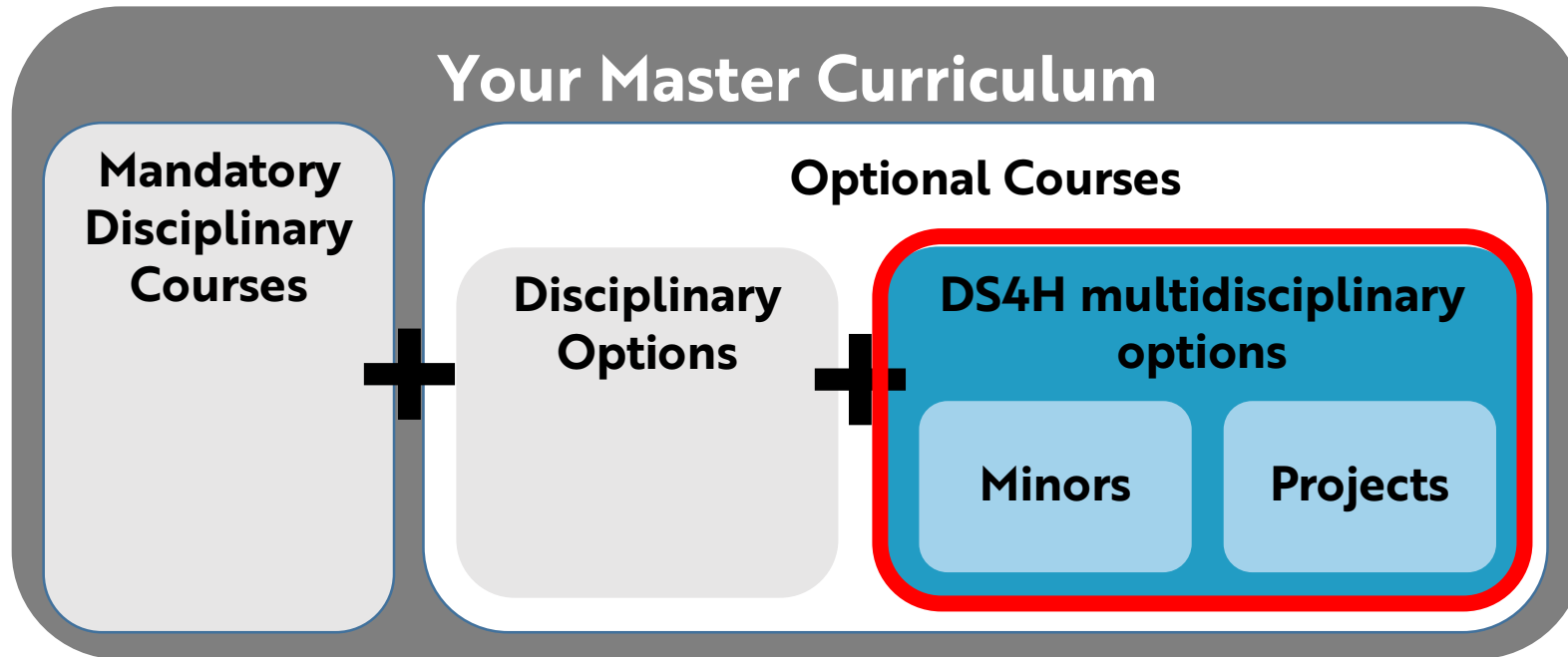
12h00-12h20

DS4H Modular Education Program Spring 2025 Overlook

<https://ds4h.univ-cotedazur.eu/minors>



A fully modular education program



DS4H Multidisciplinary Options

14 Minors

- **3 ECTS**
- **No or low prerequisites**
- **In English**
- **Usually on Thursday mornings**
 - **from Feb 27 to April 17**
 - **Some minors 100% online**

<https://ds4h.univ-cotedazur.eu/minors>



2 types of Projects

- **6 ECTS (or 3)**
- **2 types of Research Projects:**
 - **Research in tutorship**
 - **Research in a multidisciplinary team**
- **Modalities:**
 - **One day per week (usually on Fridays) for a minimum of 8 weeks, starting week 9**
 - **One full week immersion: from April 28 to May 6**

<https://ds4h.univ-cotedazur.eu/projects>



DS4H Options – Who is concerned?

Your Curriculum	Initial Training		Apprenticeship	
	Minors	Projects	Minors	Projects
M1 Informatique	possible	mandatory	no	no
M1 Informatique parcours IA	possible	mandatory	no	no
M1 MIAGE	mandatory	possible	no	no
M1 EEA	possible	possible	no	no
M1 Stratégie Digitale	possible	possible	possible	possible
M2 Stratégie Digitale	possible	possible	possible	possible
M1 Droit des affaires	possible	possible	no	no
M1 Psychologie ECTN	mandatory	no	no	no
M1 HIC MAJIC	possible	no	no	no
M1 HIC MAPIC	possible	no	possible	no
M2 HIC MAPIC	possible	no	possible	no
M1 Sciences du langage	possible	no	possible	no
M1 LEA LAI RFI	mandatory	no	no	no
Doctoral student at ED DESPEG	possible	Submit a project and supervise a Master Student	-	-
Doctoral student at ED SHAL	possible		-	-
Doctoral student at ED STIC	possible		-	-
ERASMUS Students	possible (under conditions)	possible (under conditions)	-	-

DS4H Options – ERASMUS Students

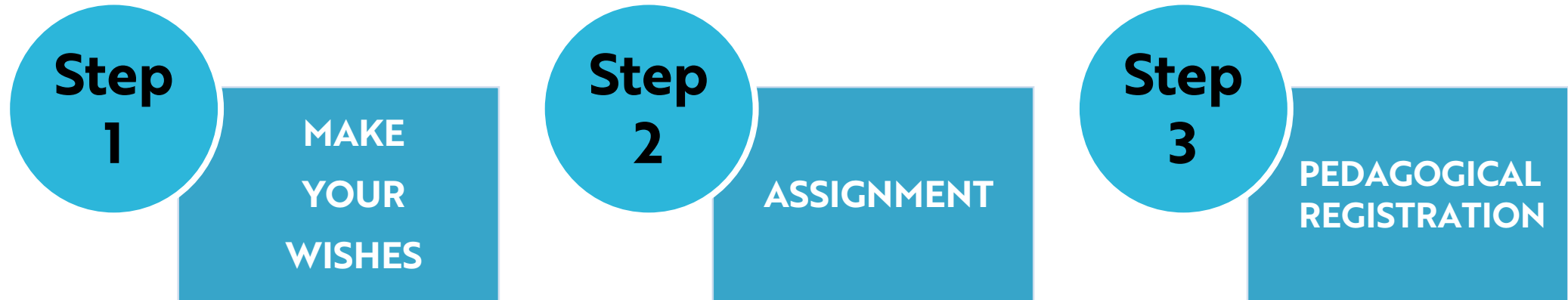
Your Curriculum	Initial Training		Apprenticeship	
	Minors	Projects	Minors	Projects
M1 Informatique	possible	mandatory	no	no
M1 Informatique parcours IA	possible	mandatory	no	no
M1 MIAGE	mandatory	possible	no	no
M1 EEA	possible	possible	no	no
M1 Stratégie Digitale	possible	possible	possible	possible
M2 Stratégie Digitale	possible	possible	possible	possible
M1 Droit des affaires	possible	possible	no	no
M1 Psychologie ECTN	mandatory	no	no	no
M1 HIC MAJIC	possible	no	no	no
M1 HIC MAPIC	possible	no	possible	no
M2 HIC MAPIC	possible	no	possible	no
M1 Sciences du langage	possible	no	possible	no
M1 LEA LAI RFI	mandatory	no	no	no
Doctoral student at ED DESPEG			-	-
Doctoral student at ED SHAL			-	-
Doctoral student at ED STIC			-	-
ERASMUS Students	possible (under conditions)	possible (under conditions)	-	-

Check your learning agreement
Contact Thomas Veitschegger



How to enrol in a Minor / a Project?

3 MANDATORY STEPS!



**Check out for registration procedure
at the end of the meeting.**

STEP 1 start today: Make your wishes

before January 27th (23h00)

Master Students

According to your training, select

3 minors (in order of preference)

and/or

1 project

on EREBE or via your Master's coordinator

Doctoral Students

Select

up to 3 minors

subject to schedule compatibility and
availability (priority given to Masters'
Students)

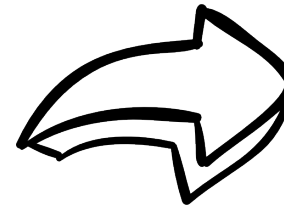
On ADUM

APPRENTICES: No access to DS4H offer
apart for M1 + M2 SD / M1 + M2 HIC MAPIC / M1 Sciences du langage

All you need to know is on DS4H WISHES Portal



<https://ds4h.univ-cotedazur.fr/wishes>



[Online Demo](#)

12h20-13h30

Spring 2025

DS4H Minors Offer

**For Master
and Doctoral
Students**

<https://ds4h.univ-cotedazur.eu/minors>

DS4H Minors in a nutshell

- Additional courses to access new disciplines alongside your major
- For Master students and PhD candidates
- 3 ECTS
- Usually on Thursday mornings
 - from Feb 27 to April 17
 - Some minors 100% online
- No or low prerequisite
- In English

<https://ds4h.univ-cotedazur.eu/minors>



DS4H Minors

Spring 2025 offer

<https://ds4h.univ-cotedazur.eu/minors>

- For Master and PhD Candidates
- One minor / semester (3 ECTS)
- On Thursday mornings (usually)
- In English
- No or low prerequisites (check it!)

Technical

- AI: Introduction to deep learning
- IoT – Connected Objects
- Quantum Computing and Networking
- Quantum Engineering
- Programming 3D games on the Web

Business

- Deeptech Entrepreneurship
- Digital IP and Law

Digital Culture

- Technological challenges in the IoT domain
- Anthropology and Ethics of Technics

Soft Skills

- Innovation and Creativity
- Innovation and Design Thinking
- Introduction to Scientific Research
- Organize your activity in project mode
- Website Creation Workshop

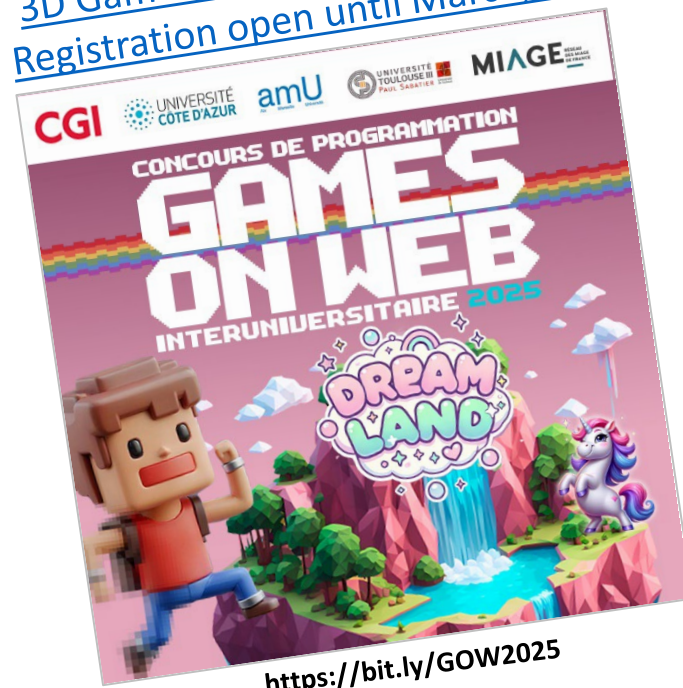
MINOR

Programming 3D games on the Web

Coordinator:
Michel Buffa



3D Games Programming Contest
Registration open until March, 30!



FORMAT

Classroom

LOCATION

Campus
SophiaTech,
Lucioles

PREREQUISITES

JavaScript basic
knowledge.

CAPACITY

30 students

WHAT YOU'LL LEARN?

- Understand of a **3D game** is designed : main parts, etc.
- Understand **how to load asynchronously 3D models** and use them in a game,
- **Use different cameras, viewports, lightning models**
- Use a physic engine, and know what you can do and cannot do with different engines
- Interact with the different elements of a 3D scene
- **Use particle systems** to render explosions, smoke, snow, etc.

MINOR

Programming 3D games on the Web

Coordinator:
Michel Buffa



SCHEDULE

Date	Time slot	Location
13/03/2025	9h00-13h00	Campus SophiaTech, Lucioles, room 342
20/03/2025	9h00-13h00	Campus SophiaTech, Lucioles, room 342
27/03/2025	9h00-13h00	Campus SophiaTech, Lucioles, room 342
3/04/2025	9h00-13h00	Campus SophiaTech, Lucioles, room 342
10/04/2025	9h00-13h00	Campus SophiaTech, Lucioles, room 342
17/04/2025	9h00-13h00	Campus SophiaTech, Lucioles, room 342

MINOR

Artificial Intelligence: Introduction to Deep Learning

Coordinator:
Anaïs OLLAGNIER



FORMAT

Classroom

LOCATION

Campus
SophiaTech,
Templiers

PREREQUISITES

- Scientific Bachelor
- Python programming

CAPACITY

24 students

COURSE OBJECTIVES

- **Understand neural networks**
- **Learn how to build neural networks on various types of data: tabular data (csv files), images, text and time series.**
- **Adopt a methodology to ensure that the results obtained are relevant.**
- **Various labs to illustrate each topic**

MINOR

Artificial Intelligence: Introduction to Deep Learning

Coordinator:
Anaïs OLLAGNIER



PREREQUISITES

- **The principles of Machine Learning are supposed to be known**
 - Hands-On Machine Learning with Scikit-Learn, Keras, and TensorFlow, Aurélien Géron, septembre 2019, O'REILLY
- **A minimum of programming experience in Python**
 - **Lab are in Python 3.0.**
 - Python Data Science Handbook, Jake VanderPlas, 2017, O'REILLY (Part 1 to 4) – free pdf available on internet
 - Possible to make lab with Google Colab (no installation needed)

MINOR

Artificial Intelligence: Introduction to Deep Learning

Coordinator:
Anaïs OLLAGNIER



SCHEDULE

Date	Time	Course's title	Place
27/02/2025	9h00-10h30	CM : Introduction to Deep Learning	Campus SophiaTech, Templiers room B214
	10h30-12h30	TD	
6/03/2025	8h30-10h00	CM : Neural Networks and Multilayer Perceptrons (MLP)	Campus SophiaTech, Templiers room B214
	10h00-12h30	TD	
13/03/2025	9h00-10h30	CM : Convolutional Neural Networks (CNNs)	Campus SophiaTech, Templiers room B214
	10h30-12h30	TD	
20/03/2025	9h00-10h30	CM : Encoder/Decoder Networks	Campus SophiaTech, Templiers room B214
	10h30-12h30	TD	
27/03/2025	9h00-10h30	CM : Data, Embedding, and Latent Spaces	Campus SophiaTech, Templiers room B214
	10h30-12h30	TD	
3/04/2025	9h00-10h30	CM : Recurrent Neural Networks (RNNs) and Transformers	Campus SophiaTech, Templiers room B214
	10h30-12h30	TD	
10/04/2025	9h00-10h30	CM : Large Language Models (LLMs)	Campus SophiaTech, Templiers room B214
	10h30-12h30	TD	
17/04/2025	9h00-12h30	Project Presentation	Campus SophiaTech, Templiers room B214

MINOR

Innovation and Creativity

Coordinator:
Cindy De Smet



FORMAT

Online
synchronous
sessions +
asynchronous

LOCATION

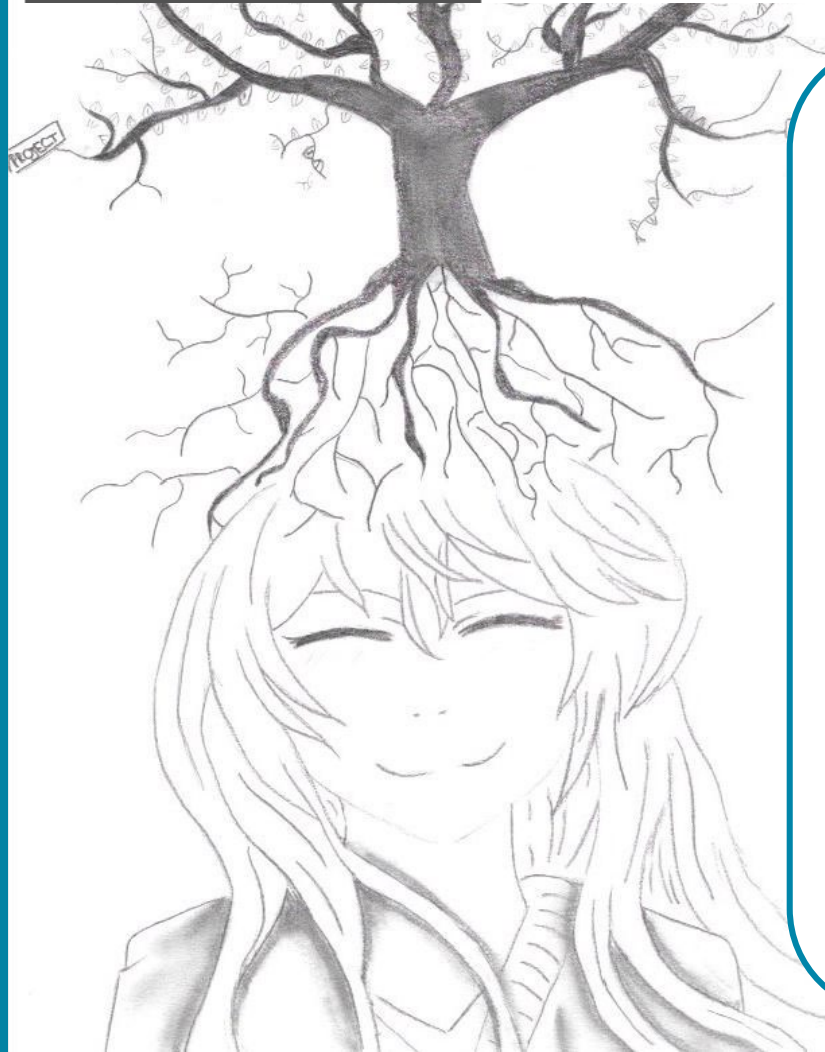
Moodle Learning
Management
System - Zoom

PREREQUISITES

Minimum language
skills in English

CAPACITY

30 students



WHAT YOU'LL LEARN?

- **Explore the existing creativity literature across multiple disciplines, and how it connects to innovation.**
- **Start a self-reflection on how to enhance your creative abilities.**
- **Learn how visualization as a cognitive process, can help you generate better ideas**
- **Learn how collaboration can help you produce more qualitative ideas**
- **Introduction to the intersections between critical thinking and creativity, and the influence of artificial intelligence**

MINOR

Innovation and Creativity

Coordinator:
Cindy De Smet



SCHEDULE

Date	Time	Course title	Format/Location
27/02/2025	18h30-20h00	Tutoring session 1	Online
27/03/2025	18h30-20h00	Tutoring session 2	Online
10/04/2025	18h30-20h00 (optional)	Live recording self- reflection task. Possibility for task-related advice	Online, on appointment

MINOR

IoT – Connected Objects

Coordinator:
Didier Orlandi



FORMAT

Classroom

LOCATION

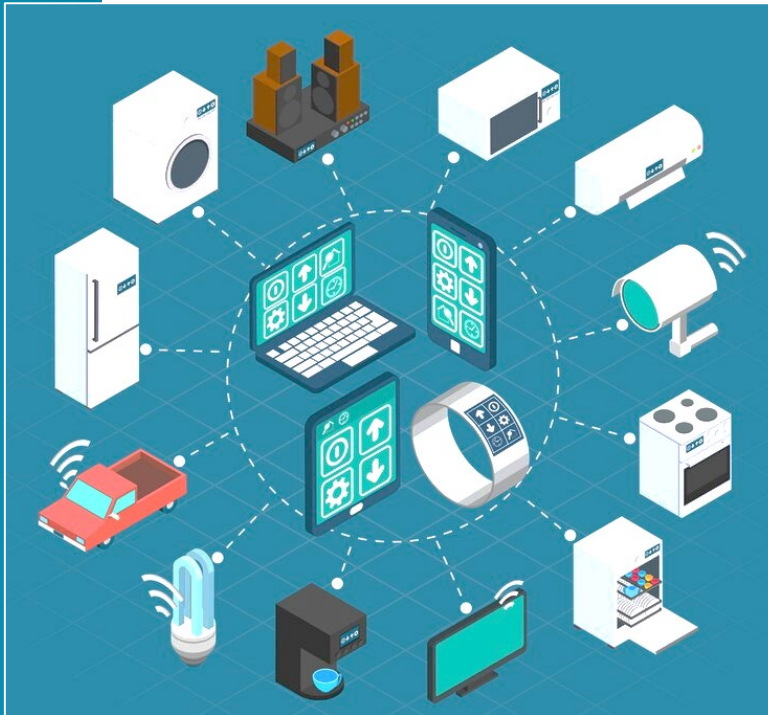
Campus Valrose,
FabLab

PREREQUISITES

Yes, see syllabus

CAPACITY

10 students



WHAT YOU'LL LEARN?

- Securely implement any connected system.
- Know the different communication protocols: MQTT, LORAWAN, ...
- Create a web interface to visualize data from connected objects.
- Publish a video stream (webcam, IP camera, camera, etc.)
- Create or modify basic programs in Python language, in C language (Arduino), design web pages in HTML5 and javascript.

MINOR

IoT – Connected Objects

Coordinator:
Didier Orlandi



SCHEDULE

Date	Time	Course Title	Trainers	Location
27/02/2025	9h00-12h00	Team Project : realization of a connected project, face-to-face. Face-to-face and distance : Presentation of the communication chain of a connected object. Introduction to the different types of microprocessors (arduino, STM32) Implementation of simple sensors with arduino. Choice of a connected objects project to realize.	D. Orlandi, P. Aplincourt, G. Huillard	Campus Valrose, FabLab
6/03/2025	9h00-12h00	Team Project, face-to-face. Face-to-face and distance: Presentation of the communication chain of a connected object. Introduction to the different types of microprocessors (arduino, STM32) Implementation of simple sensors with arduino. Choice of a connected objects project to realize.	D. Orlandi, P. Aplincourt, G. Huillard	Campus Valrose, FabLab
13/03/2025	9h00-12h00	Team Project, face-to-face. • Presentation LORA, LORAWAN. • Implementation of the LORAWAN UCA board. • Face-to-face: Management of connected object project groups.	D. Orlandi, P. Aplincourt	Campus Valrose, FabLab
20/03/2025	9h00-12h00	Team Project, face-to-face : supervision: connected object projects.	D. Orlandi, G. Huillard	Campus Valrose, FabLab
27/03/2025	9h00-12h00	Team Project, face-to-face : supervision: connected object projects.	P. Aplincourt, G. Huillard	Campus Valrose, FabLab
3/04/2025	9h00-12h00	Team projects: Discussions about the chosen case studies In autonomy: Bibliographic research	D. Orlandi, P. Aplincourt	Campus Valrose, FabLab
10/04/2025	9h00-12h00	Team projects: Discussions about the chosen case studies In autonomy: Bibliographic research	D. Orlandi, G. Huillard	Campus Valrose, FabLab
17/04/2025	9h00-12h00	Team projects presentations	D. Orlandi, P. Aplincourt, G. Huillard	Campus Valrose, FabLab

MINOR

Quantum Engineering

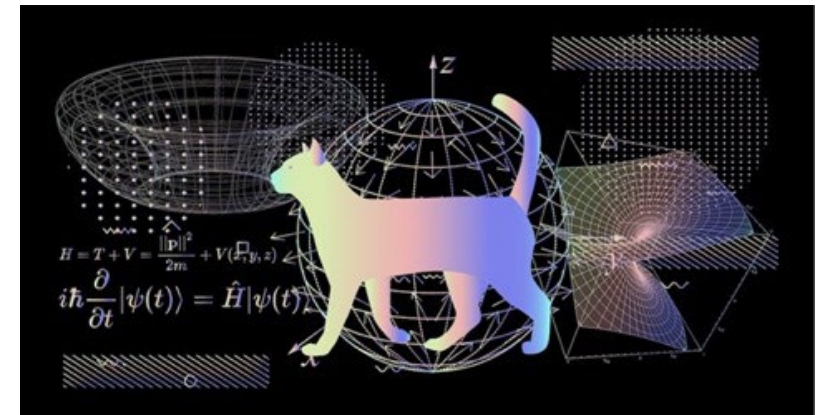
Coordinator:
Virginia D'Auria



MINOR

Quantum Engineering

Boost your quantum skills for practical applications



MINOR

Quantum Engineering

Coordinator:
Virginia D'Auria



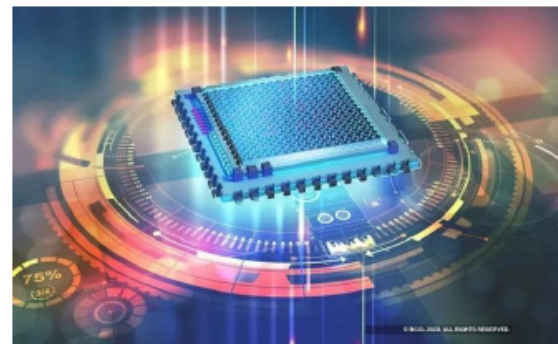
New Quantum Technologies: Use quantum physics to perform tasks

inaccessible to classical devices



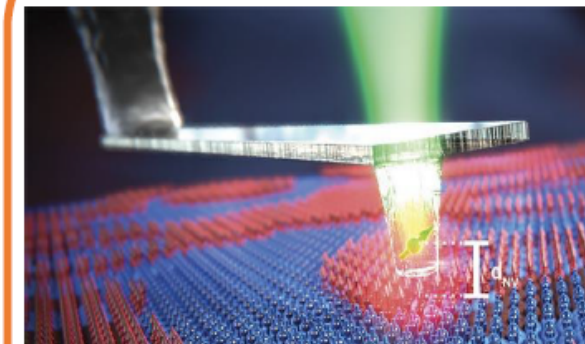
Communication

*Increased security,
Q. network, Q. Internet*



Computation/Simulation

*Global energy, materials,
finance, Transport, Life
sciences...*



Sensing

*Biology, defence, material,
aeronautics, ...*

Disruptive technologies
(\$106b market size in 2040, national sovereignty...)

2021: Plan Quantique
National : 1.8 Mld en 5 ans

MINOR

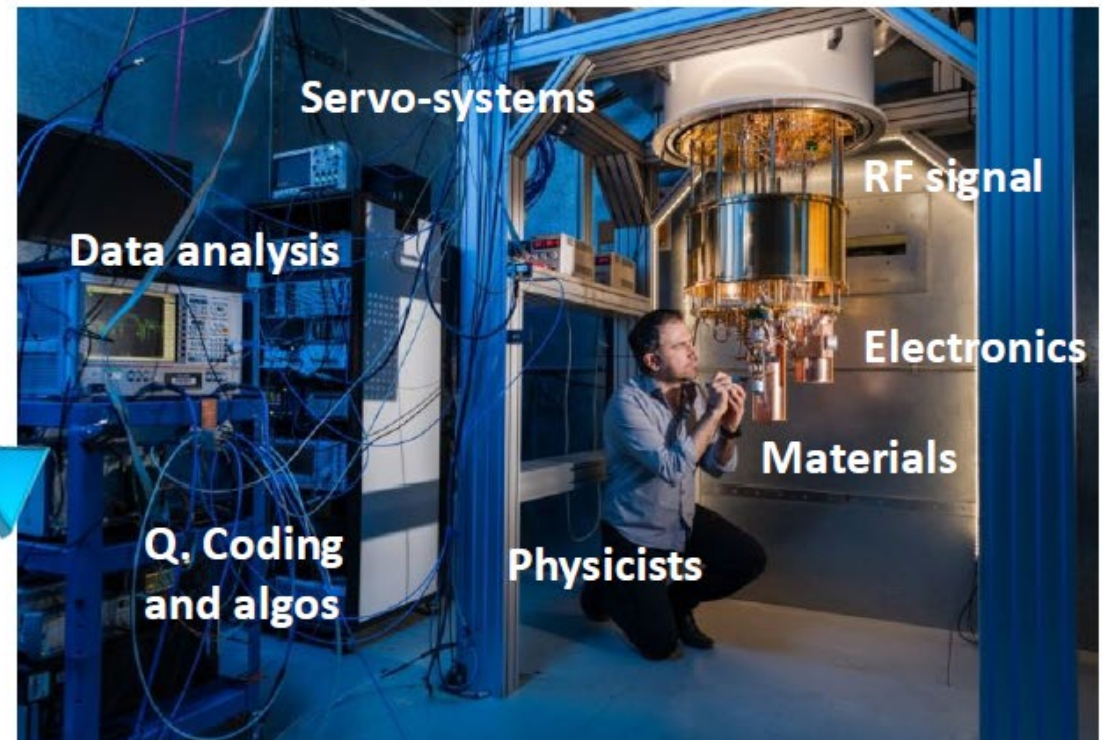
Quantum Engineering

Coordinator:
Virginia D'Auria



Spend your skills in Quantum applications

A physicist business?



Not at all!!

Develop & exploit Quantum :
Combine complementary know-how and profiles

A growing demand of both quantum and classical competences

MINOR

Quantum Engineering

Coordinator:
Virginia D'Auria



FORMAT
Classroom+Workshop

LOCATION
Campus Valrose

PREREQUISITES
- Basic linear algebra,
- English level: B1

CAPACITY
20 students

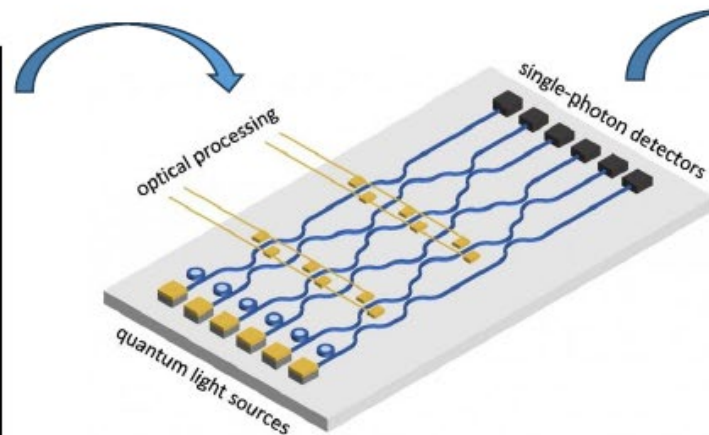


Minor Q. Engineering: Understand how it is done, to use and develop it!

Ex. What's inside a light-based Q. simulator?



How is it built?



Which classical technos are needed?



MINOR

Quantum Engineering

Coordinator:
Virginia D'Auria



FORMAT

Classroom+Workshop

LOCATION

Campus Valrose

PREREQUISITES

- Basic linear algebra,
- English level: B1

CAPACITY

20 students



WHAT YOU'LL LEARN?

- How some main quantum technologies work and are implemented
- What classical technologies are needed to make them work
- Talk to people fabricating quantum devices, visit their labs, see how it actually works!

CONTENTS

- Classical Enabling technologies
- Nanotechnologies for quantum devices
- State of the art of quantum circuits
- Basic physics of cold atoms
- Application of cold atoms and ions
- Quantum Metrology and sensors

Certificate

Quantum Aware



DIGITAL SYSTEMS
FOR HUMANS
GRADUATE SCHOOL AND RESEARCH



FORMAL, PHYSICAL AND
ENGINEERING SCIENCES
GRADUATE SCHOOL AND RESEARCH



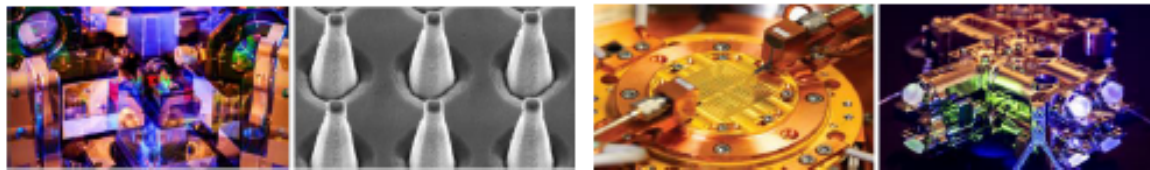
QuantEdu-France
(57 M€ for Q.education)



Combine different types of actions to progressively boost your Q. skills



- 🎯 Diversified, complementary training modules
- 🎯 A flexible path, mainly built by the student
- 🎯 Strong links with Q. research in academy and industry
- 🎯 Possibility to access to Q. actions from other partners



A clear presentation of the skills you have acquired, enabling you to enrich your diploma



Free to EURs DS4H & Spectrum master students and PhDs

Certificate Quantum Aware



DIGITAL SYSTEMS
FOR HUMANS
GRADUATE SCHOOL AND RESEARCH



FORMAL, PHYSICAL AND
ENGINEERING SCIENCES
GRADUATE SCHOOL AND RESEARCH



QuantEdu-France
(57 M€ for Q.education)



Combine different types of actions to progressively boost your Q. skills

A. Course

Majors or
Minors Q.:

- Q. Technologies
- Q. Engineering
- Q. Computing

(3 ECTS/course)

B. Internships

In Academy or in
Q. industry

*Including
interdisciplinary
topics*

(3 to 6 ECTS)

EURs & QEdU-France
calls for scholarships

C. Seminars

Fundamental &
applied themes



QuantAzur
Institute

(2 ECTS/cycle)

C. Events

Summer Schools;
Hackatons; Workshops

*Spring/Summer 2024
≈ 30 schools all over EU*

(2 ECTS/event)

C. Q. Weeks

One week of full
immersion

Starting in 2025

(2 ECTS/week)

Possibility to apply for QuantEdu-France
mobility grants



Master Students: 10 ECTS over 2 years

PhDs: 7 ECTS over 3 years

Inscriptions and detailed modalities on the certification website

MINOR

Quantum Engineering

Coordinator:
Virginia D'Auria



SCHEDULE

Date	Time slot	Course title	Lecturer	Room
27/02/2025	9h00-12h00	1 - Enabling technologies	Fabrice Raineri	Campus Valrose, building M, room M 3.2
6/03/2025	9h00-12h00	2 - Nanotechnologies for quantum devices	Fabrice Raineri	Campus Valrose, building M, room M 3.2
13/03/2025	9h00-12h00	3 - State of the art of quantum circuits	Fabrice Raineri	Campus Valrose, building M, room M 3.2
20/03/2025	9h00-12h00	4 - Two-Photon Interference	Laurent Labonté	Campus Valrose, building M, room M 3.2
27/03/2025	9h00-12h00	5 - Quantum Metrology	Laurent Labonté	Campus Valrose, building M, room M 3.2
3/04/2025	9h00-12h00	6 - Basic physics of cold atoms	William Guerin	Campus Valrose, building M, room M 3.2
10/04/2025	9h00-12h00	7 - Application of cold atoms and ions	William Guerin	Campus Valrose, building M, room M 3.2
17/04/2025	9h00-12h00	8 - Evaluation: students' presentation on a given case study	Fabrice Raineri, Laurent Labonté	Campus Valrose, building M, room M 3.2

MINOR

Quantum Computing and Networking

Coordinator:
Ramon Aparicio Pardo



FORMAT

Classroom

LOCATION

Campus SophiaTech,
Templiers

PREREQUISITES

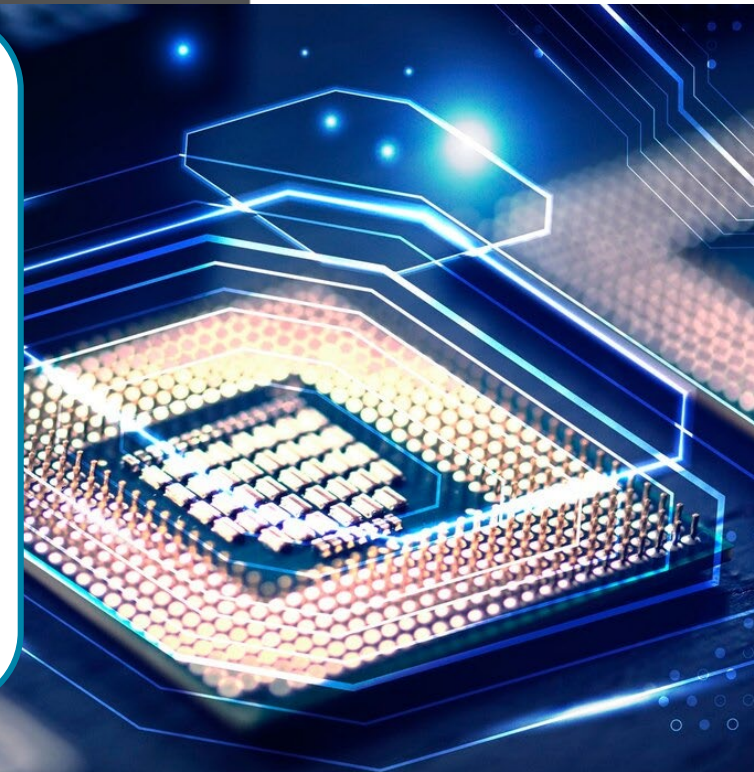
Discrete probability (conditional probability, independent events, ...), linear algebra (matrix operations, eigenvalues/vectors, norms, ...). Notions of algorithm analysis and networking are a useful plus.

CAPACITY

25 students

WHAT YOU'LL LEARN?

- Learn the fundamentals of quantum computing and quantum communications.
- Basic introduction of some experimental observations which justify quantum mechanics principles.
- Introduction to the concepts of quantum bits and describe how to manipulate them through quantum circuits.
- The advantages of quantum computing will be illustrated through some specific examples and algorithms including quantum search, quantum teleportation, and quantum random walks.



MINOR

Quantum Computing and Networking

Coordinator:
Ramon Aparicio Pardo



SCHEDULE

Date	Time	Course Title	Lecturer	Location
27/02/2025	9h00-12h00	Introduction to quantum mechanics	Ramon Aparicio Pardo	Campus SophiaTech, Templiers, room E318
6/03/2025	9h00-12h00	Quantum gates and quantum computers	Ramon Aparicio Pardo	Campus SophiaTech, Templiers, room E318
13/03/2025	9h00-12h00	Quantum coding	Ramon Aparicio Pardo	Campus SophiaTech, Templiers, room E318
20/03/2025	9h00-12h00	Devices for quantum communications	Virginia D'Auria	Campus SophiaTech, Templiers, room E318
27/03/2025	9h00-12h00	Quantum random walks	Konstantin Avrachenkov	Campus SophiaTech, Templiers, room E318
3/04/2025	9h00-12h00	Quantum algorithms	Ramon Aparicio Pardo	Campus SophiaTech, Templiers, room E318
10/04/2025	9h00-12h00	Quantum communications	Ramon Aparicio Pardo	Campus SophiaTech, Templiers, room E318
17/04/2025	9h00-12h00	Written exam	Ramon Aparicio Pardo	Campus SophiaTech, Templiers, room E318

MINOR

Website Creation Workshop

Coordinator:
Nicolas Fogliarini (RR3 Films)



FORMAT

Classroom + online
synchronous sessions

LOCATION

Campus Valrose or
online depending on
the session (see
schedule)

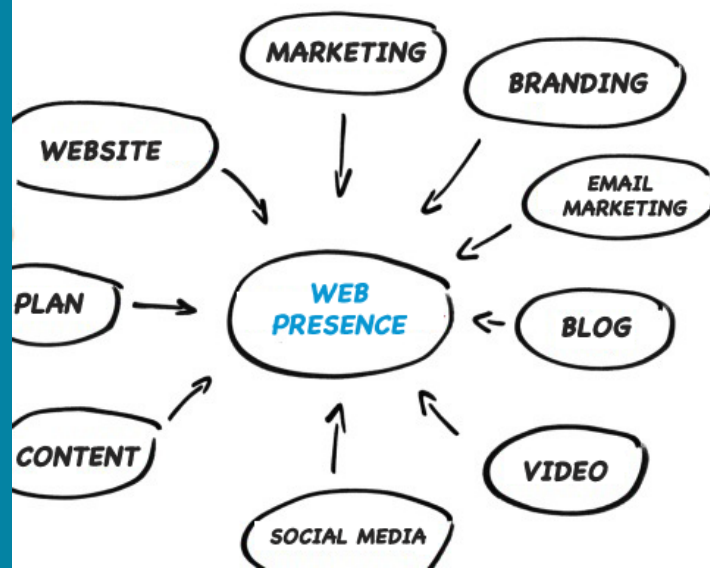
PREREQUISITES

No

CAPACITY

20 students

**This minor is dedicated
to beginners, not
website specialists.**



WHAT YOU'LL LEARN?

- **How to showcase the best of your work, skills through various medias : websites, online portfolios, blogs, social networks.**
- **How to create assets (posts, photos, videos, graphics, podcasts..) using free tools and their smartphones + computers.**
- **How to improve your online presence and learn how to avoid pitfalls.**
- **How to collaborate effectively online using video conference.**

MINOR

Website Creation Workshop

Coordinator:
Nicolas Fogliarini (RR3 Films)



[Watch the video](#)

MINOR

Website Creation Workshop

Coordinator:
Nicolas Fogliarini (RR3 Films)



SCHEDULE

Date	Time slot	Course title	Room
27/02/2025	9h00-13h00	Introduction on various online portfolio's platforms	Campus Valrose, Petit Valrose, room PV111
	18h00-19h00	Focus on Google My Business	Online live tutorial session
6/03/2025	9h00-13h00	Preparation work and wordpress intro	Campus Valrose, Petit Valrose, room PV111
	18h00-19h00	Website that converts	Online live tutorial session
13/03/2025	9h00-13h00	Creating content	Campus Valrose, Petit Valrose, room PV111
	18h00-19h00	Focus on right clearance	Online live tutorial session
20/03/2025	9h00-13h00	Working with themes and plugins, uploading, security...	Campus Valrose, Petit Valrose, room PV111
	18h00-19h00	Focus on SEO	Online live tutorial session
27/03/2025	9h00-13h00	Working on your own online portfolio last details + Exam	Campus Valrose, Petit Valrose, room PV111

MINOR

Digital Intellectual Property and Law

Coordinator:
Frédéric Marty



FORMAT

Classroom

LOCATION

Campus Trotabas

PREREQUISITES

No

CAPACITY

20 students

WHAT YOU'LL LEARN?

- Acquire essential knowledge about **the legal, economic, and managerial issues induced by digital markets and the algorithms-driven economy**
- Master fundamental notions of **data protection law, consumer law, and competition law applied**
- Discover basic notions necessary to understand and appropriate economic science and management sciences concepts, models, and insights to analyze the incentives of market players and the dynamics of digital markets



MINOR

Digital Intellectual Property and Law

Coordinator:
Frédéric Marty



SCHEDULE

Date	Time slot	Course title	Lecturer	Room
27/02/2025	8h00-12h00	Digital Markets and coordinated practices	Jeanne Mouton	Campus Trotabas, room 404, main building
6/03/2025	8h00-12h00	Anticompetitive digital practices	Frédéric Marty	Campus Trotabas, room 432, extension building
13/03/2025	8h00-12h00	Consumer protection and digital manipulations	Jeanne Mouton	Campus Trotabas, room 404, main building
20/03/2025	8h00-12h00	Competition Law and Digital Markets	Nathalie Nielson	Campus Trotabas, room 432, extension building
27/03/2025	8h00-12h00	Competition Law and Digital Markets	Nathalie Nielson	Campus Trotabas, room 404, main building
3/04/2025	8h00-12h00	Anticompetitive digital practices	Frédéric Marty	Campus Trotabas, room 404, main building

MINOR

Introduction to Scientific Research

Coordinator:
Fabien FERRERO



FORMAT

Classroom

LOCATION

Campus
SophiaTech
Templiers

PREREQUISITES

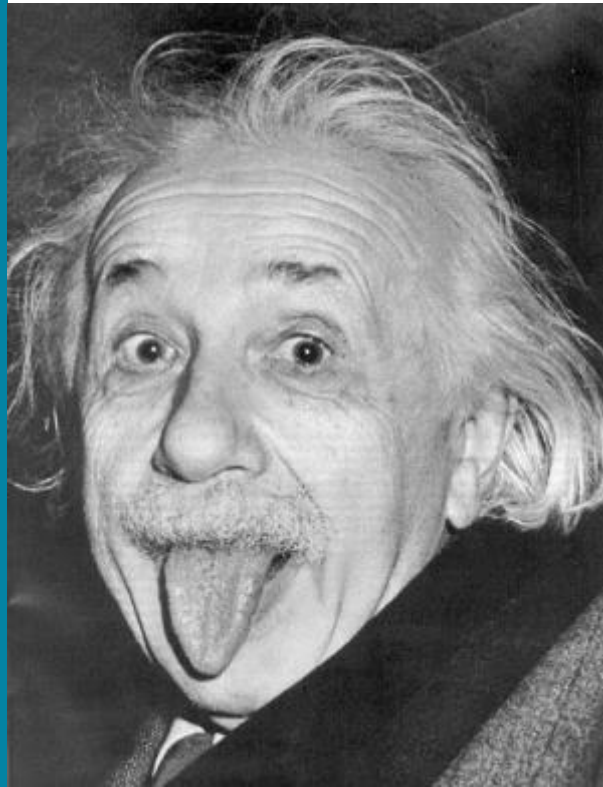
No

CAPACITY

24 students

WHAT YOU'LL LEARN?

- **How to conduct research, and more generally how to approach a subject rationally**
- **Take a critical view on the literature available on the subject**
- **Provide your own reflections supported by experience and communicate them**
- **The hindsight that this course provides on what science is (or is not) should be part of the skills of any scientist, not only researchers.**



MINOR

Introduction to Scientific Research

Coordinator:
Fabien FERRERO



SCHEDULE

Date	Time slot	Lecturers	Course title	Location
27/02/2025	9h00-12h15	9h00-9h15 - F. Ferrero	Welcome, Course goals and outline, evaluation modalities	SophiaTech Templiers, room B107
		9h15-10h45 - E.Picholle	Epistemology, "What is science?"	
		11h00-12h15 - A.-L. Simonelli	Research: a job of passion	
6/03/2025	9h00-12h15	9h00-10h30 - H.-Y.Wu	Methods for conducting research - Bibliography 1	SophiaTech Templiers, room B107
		10h45-12h15 - S.Touati	Bibliography 2	
13/03/2025	9h00-12h15	9h00-9h30 - G.Bernot	Bibliographic analysis on a given list of articles	SophiaTech Templiers, room B107
		9h45-12h15 - F.Ferrero	Scientific writing	
20/03/2025	9h00-12h15	S.Touati	Experimentation workshop: Statistical aspects of experimentation	SophiaTech Templiers, room B107
27/03/2025	9h00-12h15	C. Migliaccio	Experimentation workshop: Millimeter Wave radar experiment	SophiaTech Templiers, room B107
3/04/2025	9h00-12h15	9h00-10h30 - N.Abchiche	Digital Deontology	SophiaTech Templiers, room B107
		10h45-12h15 - G.Bernot	Article analysis: last questions	
10/04/2025	9h00-12h15	9h00-10h30 - F.Ferrero	Scientific collaborations	SophiaTech Templiers, room B107
		10h45-12h15 - A.-L. Simonelli	PhD and its career opportunities	
17/04/2025	8h00-12h20	Jury	Evaluation	SophiaTech Templiers, room B107

MINOR

Technological Challenges in the IoT Domain

Coordinator:
Yves Roudier



FORMAT

Classroom + online synchronous sessions

LOCATION

Campus SophiaTech, Lucioles and online, depending on the session (see schedule)

PREREQUISITES

No

CAPACITY

20 students

WHAT YOU'LL LEARN?

- **Technical understanding about the issues underlying the lifecycle of Internet of Things systems**
- **Basic knowledge and hands-on experience about technical solutions for the design, development, and operations of Internet of Things systems**

INTERNET OF THINGS

CONTENTS

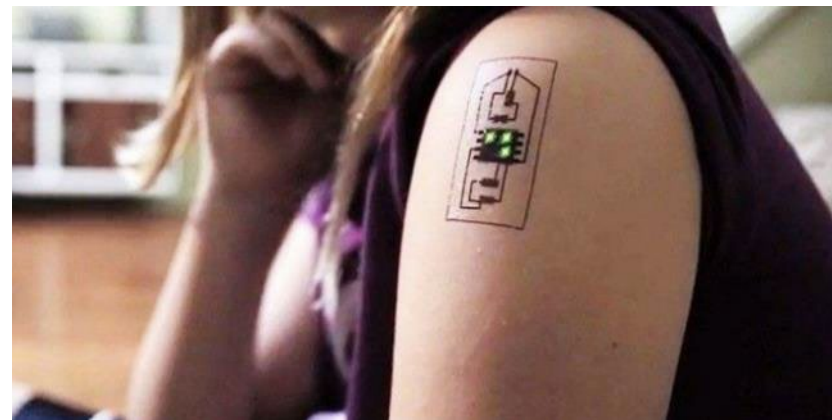
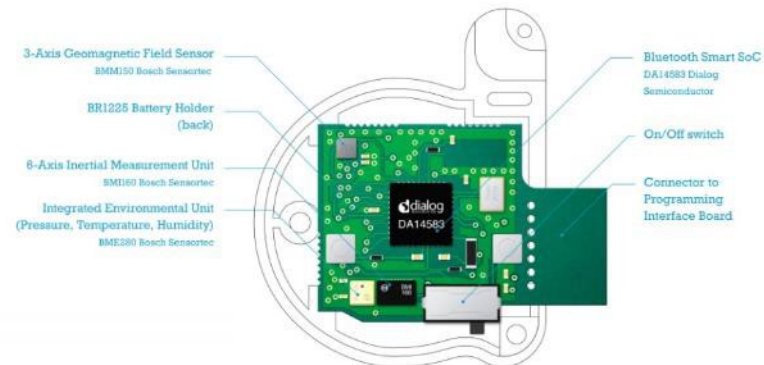
Both technical and societal viewpoints:

- **Distributed infrastructures for connected objects**
- **Security and privacy for IoT**
- **Introduction to data valorization**
- **Hands-on experience with low-code deployment of a secure IoT application**

MINOR

Technological Challenges in the IoT Domain

Coordinator:
Yves ROUDIER



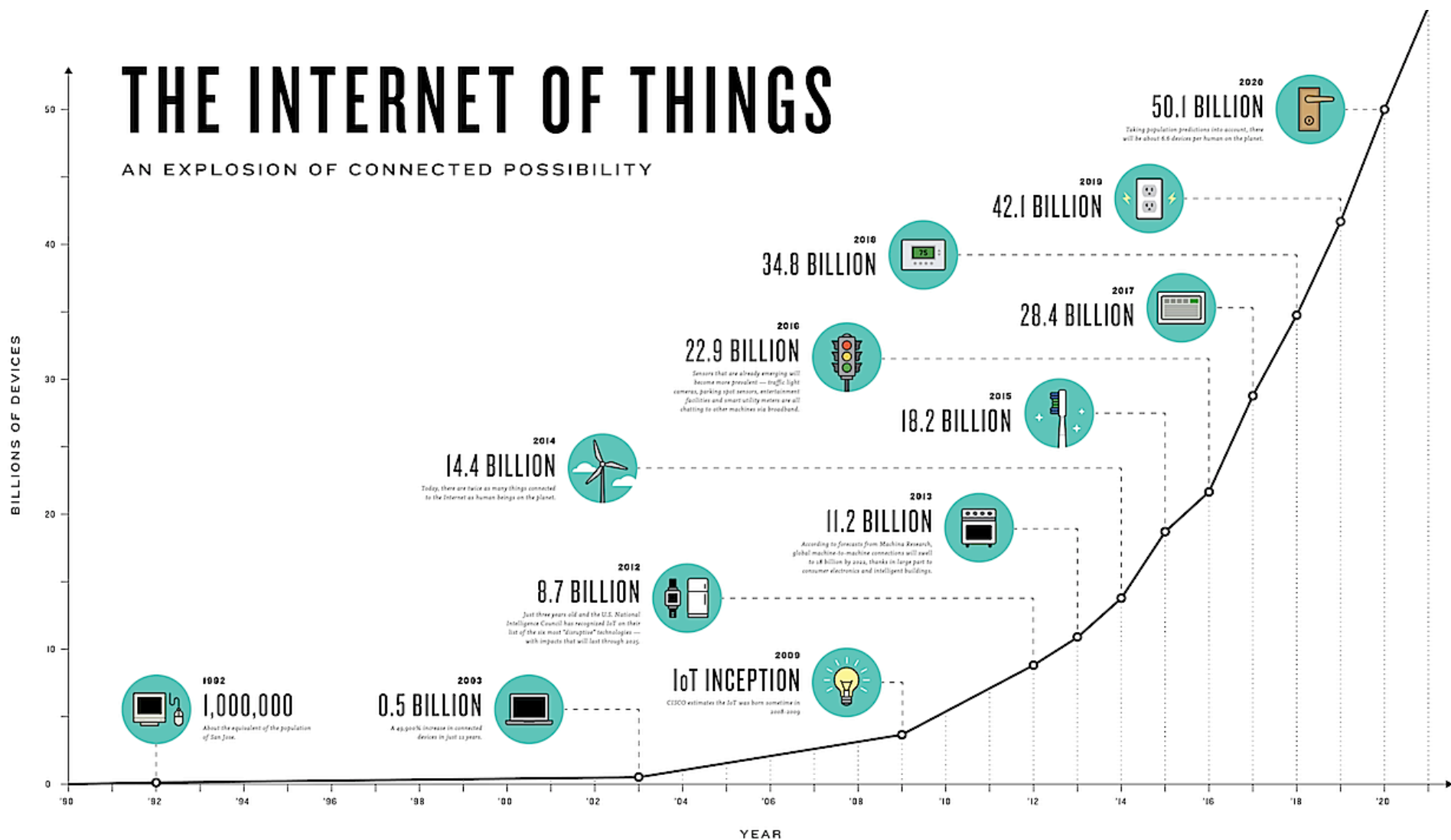
MINOR

Technological Challenges in the IoT Domain

Coordinator:
Yves ROUDIER



billy



MINOR

Technological Challenges in the IoT Domain

Coordinator:
Yves ROUDIER



SCHEDULE

Date	Time slot	Course title	Lecturer	Room
27/02/2025	9h00-12h00	Distributed infrastructure for connected objects	Jean-Yves Tigli	Campus SophiaTech, Lucioles, room TD08
6/03/2025	9h00-12h00	Security and privacy for IoT	Yves Roudier	Campus SophiaTech, Lucioles, room TD08
13/03/2025	9h00-12h00	Project	Jean-Yves Tigli and Yves Roudier	Campus SophiaTech, Lucioles, room TD08
20/03/2025	8h00-12h00	Introduction to data valorization	Guilhem Molines	Online synchronous session
27/03/2025	9h00-12h00	Introduction to data valorization	Guilhem Molines	Online synchronous session
3/04/2025	9h00-12h00	Distributed infrastructure for connected objects	Jean-Yves Tigli	Campus SophiaTech, Lucioles, room TD08
10/04/2025	9h00-12h00	Project Defenses	Jean-Yves Tigli and Yves Roudier	Campus SophiaTech, Lucioles, room TD08
17/04/2025	10h00-12h00	Security and privacy for IoT + Quizz	Yves Roudier	Campus SophiaTech, Lucioles, room TD08

MINOR

Anthropology and Ethics of Technics

Coordinator:
Valentina TIRLONI



FORMAT

Moodle
asynchronous and
synchronous live
online tutorials

LOCATION

Online

PREREQUISITES

No

CAPACITY

20 students

WHAT YOU'LL LEARN?

- **This minor is designed to develop critical thinking on technological issues and to explore topics such as new sociability, transhumanism, and the ethical implications of technology.**
- **We will examine the impact of technology on human life, including the potential negative consequences and the loss of certain values.**
- **The course will be divided into four parts: Anthropological inquiry on Technics, Transhumanism, Philosophical inquiry on Technics, and an ethical approach to Technics.**



MINOR

Anthropology and Ethics of Technics

Coordinator:
Valentina TIRLONI



[Watch the video](#)

MINOR

Anthropology and Ethics of Technics

Coordinator:
Valentina TIRLONI



SCHEDULE

Date	Time slot	Course title	Room
27/02/2025	18h00-19h00	Introduction	on Moodle
06/03/2025	18h00-19h00	Anthropological inquiry on Technics	online synchronous
13/03/2025	18h00-19h00	New sociability	on Moodle
20/03/2025	18h00-19h00	Transhumanism	on Moodle
27/03/2025	18h00-19h00	Philosophical inquiry on Technics	online synchronous
3/04/2025	18h00-19h00	Ethical Issues on Technics	on Moodle
10/04/2025	18h00-19h00	Politics and Technics: e-democracy	on Moodle
17/04/2025	18h00-19h00	Conclusions	online synchronous

MINOR

Organize Your Activity in Project Mode

Coordinator:
Emmanuel LE ROY



FORMAT

Classroom + online
synchronous sessions

LOCATION

Campus
SophiaTech,
Lucioles and online,
depending on the
sessions (see
schedule below)

PREREQUISITES

No

CAPACITY

12 students (max 15)

CONTENTS

- Introduction to project management
- The golden triangle of project management
- Managing costs and schedules
- Managing communication
- Managing budget
- Managing risks and quality
- Managing uncertainty with agility

WHAT YOU'LL LEARN?

- How to formalize and idea in a project and make a first assessment about its feasibility.
- How to define the initial scope of your project with the budget and the time needed to make it happen.
- How to identify risks and how to manage them.
- How to control the quality along your project.
- How to manage people and monitor cost, time and scope along your project.
- Why communication is essential to the success of a project and how to do it properly.
- How to close your project properly while collecting information to make your next project even more successful.

MINOR

Organize Your Activity in Project Mode

Coordinator:
Emmanuel LE ROY



[Watch the video](#)

MINOR

Organize Your Activity in Project Mode

Coordinator:
Emmanuel LE ROY



SCHEDULE

Date	Time slot	Course title	Location
27/02/2025	9h00-12h00	Introduction to project management	Campus SophiaTech, Lucioles, room TD07
	17h30-20h30	Project life cycle and golden triangle of project management	Online
6/03/2025	9h00-12h00	Managing schedule and making a realistic plan	Campus SophiaTech, Lucioles, room TD07
	17h30-20h30	Managing risks and quality	Online
13/03/2025	9h00-12h00	How to manage a project with Scrum methodology	Campus SophiaTech, Lucioles, room TD07
	17h30-20h30	Managing the budget of your project	Online
3/04/2025	17h30-20h30	Managing communication	Online
10/04/2025	9h00-12h00	Conclusion on project management - Final exam	Campus SophiaTech, Lucioles, room TD07

MINOR

Innovation and Design Thinking

Coordinator:
Nicolas BRUNO



FORMAT

Classroom
(workshops)

LOCATION

Espace Vernassa,
Campus Saint-Jean
d'Angély, Nice

PREREQUISITES

No

CAPACITY

15 students

CONTENTS

This minor aims to train students in innovation, creativity and 21st century skills, while proposing solutions to the challenges faced by businesses and other organizations.

It's made up of several independent workshops, each of which teaches one skill. As part of your minor, you must choose 3 workshops from the following list.

!/ Each workshop is assessed.



MINOR

Innovation and Design Thinking

Coordinator:
Nicolas BRUNO



Design Thinking

An introduction to Design Thinking, an innovation process based on the notion that to innovate, you need to connect with people, understand the real needs of the user and explore the whole context of the project with a constant attitude of research.

Effectuation

Discover entrepreneurship through the prism of effectuation theory. This is a way of thinking used to build successful businesses by imagining the world as a set of opportunities. Start with the means available to achieve affordable goals.

Identify Your Talent

The aim is for students to identify their superpower, which is a unique contribution to society based on each individual's special talents. This workshop will provide answers to questions such as: What am I naturally good at (depending on your life path, your personal background)? What skills and career path would suit my superpower?

Soft Skills

Long overlooked by recruiters, soft skills have become 'must-haves' in the workplace and are increasingly valued. In this workshop, we will focus on the most sought-after soft skills and teach you how to develop these competencies!

MINOR

Innovation and Design Thinking

Coordinator:
Nicolas BRUNO



SCHEDULE

Choose 3 workshops out of 4

Date	Time slot	Workshops	Lecturer	Location
27/02/2025	9h00-13h00	Identify your Talents	Nelly Farrugia	Campus St Jean d'Angély, Espace Vernassa
6/03/2025	9h00-13h00	Identify your Talents	Nelly Farrugia	Campus St Jean d'Angély, Espace Vernassa
13/03/2025	9h00-13h00	Design Thinking	Emmanuel Lançon	Campus St Jean d'Angély, Espace Vernassa
20/03/2025	9h00-13h00	Design Thinking	Emmanuel Lançon	Campus St Jean d'Angély, Espace Vernassa
27/03/2025	9h00-13h00	Soft Skills	Emmanuel Lançon	Campus St Jean d'Angély, Espace Vernassa
3/04/2025	9h00-13h00	Soft Skills	Emmanuel Lançon	Campus St Jean d'Angély, Espace Vernassa
10/04/2025	9h00-13h00	Effectuation	Nelly Farrugia	Campus St Jean d'Angély, Espace Vernassa
17/04/2025	9h00-13h00	Effectuation	Nelly Farrugia	Campus St Jean d'Angély, Espace Vernassa

MINOR

Innovation and Design Thinking

Coordinator:
Nicolas BRUNO



Let's stay in touch!



@unica_entreprendre



entreprendre.univ-cotedazur.fr



@UniCA Entreprendre



entreprendre@univ-cotedazur.fr

MINOR

DeepTech Entrepreneurship

Coordinator:
Nicolas Bruno



FORMAT

Online
synchronous
sessions +
asynchronous

LOCATION

Online

PREREQUISITES

English: B2

CAPACITY

30 students

WHAT YOU'LL LEARN?

- Consider start-up creation like a path of scientific research valorization
- Understand the issue of disruptive innovation
- Understand the links between industry and research
- Know how to assess the economic potential of a scientific asset
- Master the keys of academic spin-off
- Master the essentials issues of intellectual property
- Communicate about your project and funding issues
- Be able to evolve in highly technological environment and to manage an agile company
- Apprehend the territory in the development of its Deeptech ecosystem



MINOR

DeepTech Entrepreneurship

Coordinator:
Nicolas Bruno



SCHEDULE

Date	Time	Course Title	Lecturer	Location
27/02/2025	9h00-12h00	Deeptech Entrepreneurship Overview	Florent Genoux	Online
6/03/2025	9h00-12h00	Intellectual Property Strategy	Michel Callois	Online
13/03/2025	8h00-11h00	Project Management for disruptive innovation	Virginia Corvino	Online
20/03/2025	9h00-12h00	Production Challenges	Dimitri Taile	Online
27/03/2025	9h00-12h00	Developing relevant and innovative business model	Galena Pisoni	Online
3/04/2025	9h00-12h00	Financing your Startup	Catherine Brun-Page	Online
10/04/2025	9h00-12h00	Identify the right market for your Innovation	Dominique Vian	Online
17/04/2025	9h00-12h00	Creating a Pitch	Sophie Monteil	Online
25/04/2025		Evaluation		Online

Where to find Spring 2025 Minors



WISHES
DS4H option wishes selection platform

<https://ds4h.univ-cotedazur.eu/wishes>



Or scan



2 - FIND OUT ABOUT SPRING 2025 SEMESTER OPTIONS

DS4H Spring 2025 minors and projects selection will take place from January 23 to January 27 (23h00).
Do not miss the online information meeting on January 23, find out more...

WHICH DS4H OPTIONS FOR WHICH STUDENTS?	MINORS / THEMATIC SCHOOLS	PROJECTS
	<p>What is a DS4H minor? What is a DS4H thematic school?</p>	<p>What is a DS4H project?</p>
YOU'RE A MASTER STUDENT	<p>Discover the minors / thematic school open in the Spring 2025 semester:</p> <ul style="list-style-type: none">• Minors• No thematic school this semester <p>=</p>	<p>Discover the projects open in Spring 2025 semester:</p> <ul style="list-style-type: none">• Research Projects<ul style="list-style-type: none">- Tutorships- Multidisciplinary Research Projects
YOU'RE A PhD CANDIDATE	<p>Discover the minors / thematic school open in the Spring 2025 semester:</p> <ul style="list-style-type: none">• Minors• No thematic school this semester	<p>PhD candidates can take part in DS4H projects as supervisors:</p> <ul style="list-style-type: none">• Submit a project and supervise a Master Student

Q&A

about minors

Check out for full syllabuses and coordinator's email addresses at

<https://ds4h.univ-cotedazur.eu/minors>

13h30-13h45

Spring 2025

Projects

Offer

**For Master
Students**

<https://ds4h.univ-cotedazur.eu/projects>

DS4H Projects offer

- For Master Students
- You choose one project per semester (6 or 3 ECTS)
- Total of ~90h

<https://ds4h.univ-cotedazur.eu/projects>



RESEARCH PROJECTS

Research Projects in Tutorship



Tutorships provide training
to research
Immerse yourself in a lab.

Multidisciplinary Research Projects



Join a team of students
from different disciplines
working on a shared topic.

DS4H Research Projects in a nutshell

Run individual and group projects to sharpen your professional objectives!

- 6 ECTS (or 3)
- One day per week for a minimum of 8 weeks (usually on Fridays)
- Starting Week 9 (February Friday 28th, or another day agreed with the project's coordinator)
- Full week immersion: April 28 - May 6



[See the research projects open this semester](#)

UNIVERSITÉ CÔTE D'AZUR | ÉCOLE UNIVERSITAIRE DE RECHERCHE
SYSTÈMES NUMÉRIQUES POUR L'HUMAIN

MASTER RESEARCH PROJECTS

...in a nutshell



[Watch the video](#)

Where to find Spring 2025 Research Projects

MINORS
Tutorships
PROJECTS

WISHES

DS4H option wishes selection platform

<https://ds4h.univ-cotedazur.eu/wishes>

Or scan



2 - FIND OUT ABOUT SPRING 2025 SEMESTER OPTIONS

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	<p>What is a DS4H minor? What is a DS4H thematic school?</p>	<p>What is a DS4H project?</p>
YOU'RE A MASTER STUDENT	<p>Discover the minors / thematic school open in the Spring 2025 semester:</p> <ul style="list-style-type: none">• Minors• No thematic school this semester	<p>Discover the projects open in Spring 2025 semester:</p> <ul style="list-style-type: none">• Research Projects<ul style="list-style-type: none">- Tutorships- Multidisciplinary Research Projects
YOU'RE A PhD CANDIDATE	<p>Discover the minors / thematic school open in the Spring 2025 semester:</p> <ul style="list-style-type: none">• Minors• No thematic school this semester	<p>PhD candidates can take part in DS4H projects as supervisors:</p> <ul style="list-style-type: none">• Submit a project and supervise a Master Student

DS4H Research Projects



[See the research projects open this semester](#)

Tutorships and multidisciplinary projects browser

You can discover tutorships and multidisciplinary projects proposed here. Project selection will start on September 15, 2023.

If you are interested in a subject, **get in touch with the advisor by email.**

Tutorships allocations depend on the agreement of the advisor regarding the student profile.

Multidisciplinary projects allocation depend on the constitution of the multidisciplinary team

2024 - 2025 ▾ 2nd semester ▾

Make sure you're on the right semester!

Type of research project

- Tutorship ▾
- <Any type>
- Tutorship
- Multidisciplinary project

Domain

Type	Domain(s)	Advisor	Title
Tutorship	Computer Science	CHUAN XU (INRIA)	Differential privacy and byzantine resilience in federated learning
Tutorship	Computer Science	Anaïs Ollagnier (I3S)	Advanced metrics to search within ontology catalogs
Tutorship	Computer Science	Daniel Gaffé (LEAT)	Symbolic handling of numerical constraints by Linear Decision Diagrams (LDD)
Tutorship	Electronics	Daniel gaffé (LEAT)	Model Checking by Linear Decision Diagrams (LDD)
Tutorship	Computer Science	Anaïs Ollagnier (I3S)	High-Level Taxonomy of NLP tasks
Tutorship	Computer Science	Anaïs Ollagnier (I3S)	Improving Hate Speech Detection Using Pragmatic-Level Information
Tutorship	Computer Science	Anaïs Ollagnier (I3S)	Assessing Hate speech/offensive detection robustness
Tutorship	Computer Science	Sid Touati (I3S/INRIA)	A la découverte de la programmation parallèle avec OpenMP
Tutorship	Computer Science	Gaetan Rey (I3S)	Contexte Utilisateur et Réalité Augmentée/Mixte
Tutorship	Computer Science	Michel BUFFA (I3S)	Amélioration d'un sampler audio logiciel fonctionnant sous forme de plugin WebAudio (dans navigateur Web)
Tutorship	Computer Science	Michel BUFFA (I3S)	Ajout de fonctionnalités dans un sequencer audio en ligne / station de travail audio numérique
Tutorship	Computer Science	Chadi Barakat (Diana)	Mining the ACQUA dataset and improving the application

Subject

Research Projects

Spring 2025 Milestones

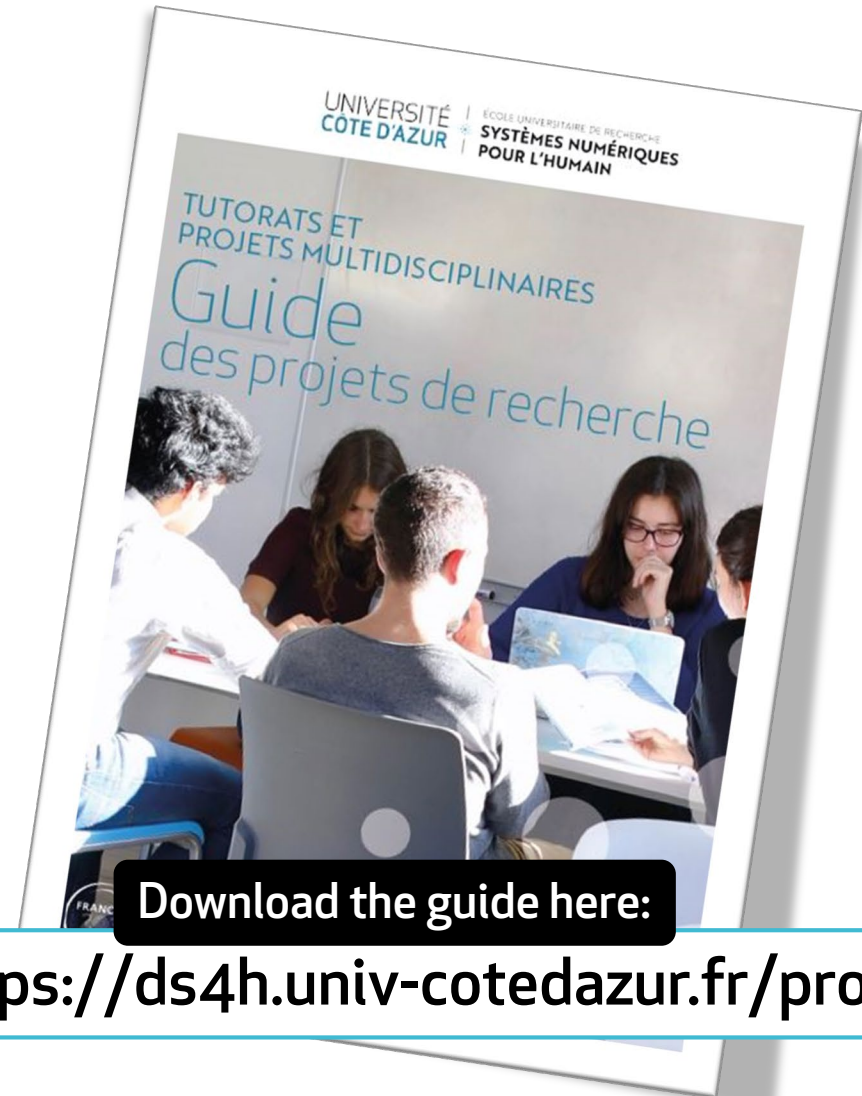
When?	What?	Where?
Week 9	Start	Host laboratory
1 day per week (usually on Fridays)	Project	Host laboratory
April 28 th to May 6 th	Immersion week	Host laboratory
May 12 th , 23h00	Final written report submission deadline	-
May 19 th to 21 st 8h00-18h00	Final oral defense	Campus SophiaTech, Lucioles Check your email to get your own defense date and time

Any question? Contact ds4h-pedagogie@univ-cotedazur.fr

Research Projects Guide

- When and how to choose your research project?
- Administrative formalities
- Key stages of your project
- Project evaluation grids

**Are you making a tutorship?
Your agreement must be completed
before the 1st day in laboratory.**



Download the guide here:

<https://ds4h.univ-cotedazur.fr/projets>

Any question? ds4h-pedagogie@univ-cotedazur.fr

Q&A

about projects

13h45-14h00

Spring 2025

**Wishes Selection Process
and Deadlines**

DS4H options registration process

3 MANDATORY STEPS!

**Step
1**

MAKE
YOUR
WISHES

Step

**Minor and Project
wishes
from January 23rd
to January 27th
(23h00)**

ICAL
ON

Make your wishes!

After reviewing the minors and projects available this semester on WISHES...



3 different ways to select your choices according your curriculum

MASTER STUDENTS

in M1 Informatique, M1 Informatique IA, M1 MIAGE, M1 Electronique, M1 Psychologie ÉCTN, M1 HIC MAJIC, M1 and M2 HIC MAPIC, M1 LEA LAI-RFI, ERASMUS Students

→ Make your wishes of **Minors** and/or **Project** via **EREBE platform**

MASTER STUDENTS

in M1 and M2 Stratégie digitale, M1 Droit des affaires, M1 Sciences du langage

→ Tell your wishes of **Minors** and/or **Project** to **your Master's coordinator**

DOCTORAL STUDENTS

Make your wishes of **Minors** via **ADUM**

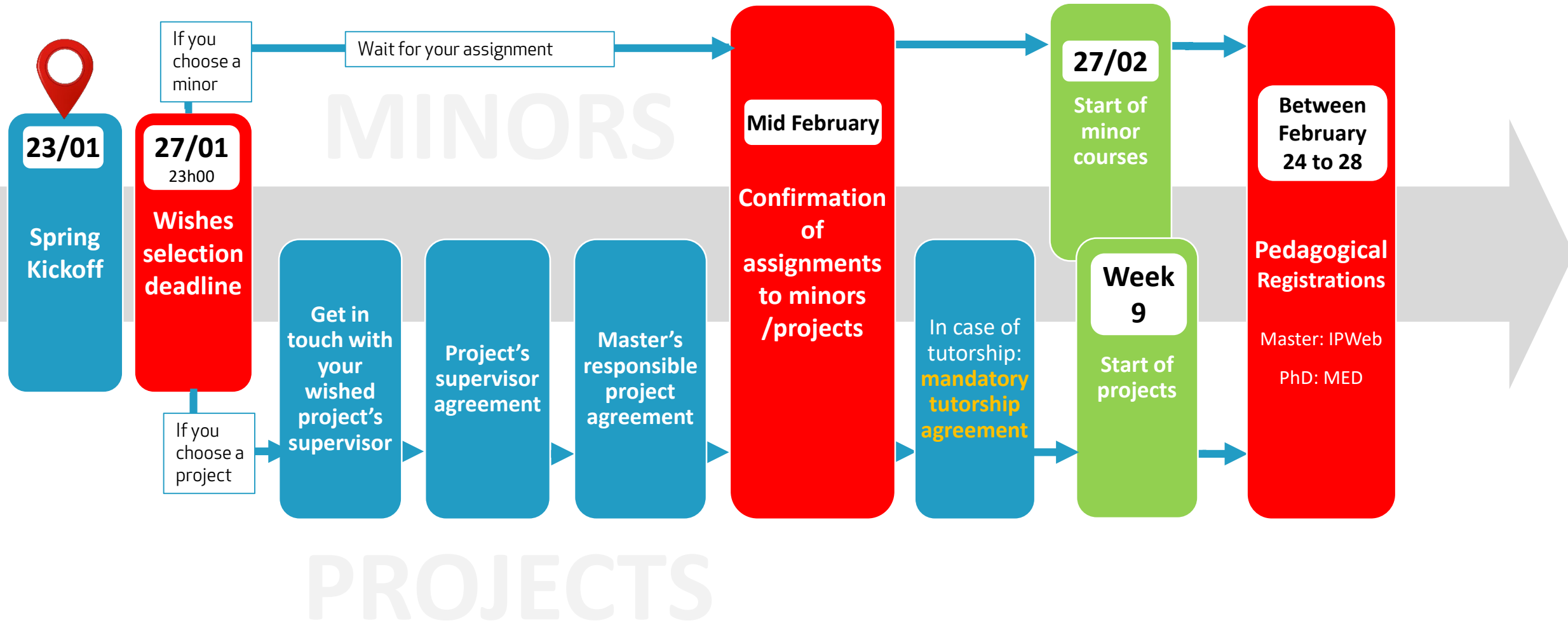
WISHES = 3 minors in order of preference and/or 1 project

WISHES = up to 3 minors, subject to schedule compatibility and availability

Extract:

- **Go on EREBE with a PC or Mac – Do not use a smartphone.**
- **Problems may occur with Firefox, use another browser.**
- **Enter your family name in full, without considering the drop-down list that appears. EREBE has not been preloaded with a complete list of all DS4H students. You must manually write your full family name and complete the entire form.**
- **Not all minors/projects are open to all Masters. If you can't see a minor/a project on EREBE, it is not open to you.**
- **You can change your pre-selection as long as the EREBE platform is open. But only the choices made on the last date of entry will be taken into account.**
- **If you're not interested in any minor or project this semester, you must confirm it on EREBE (select « I do not want to enrol in a minor/in a project this semester »).**

Watch the deadlines!





CAUTION!

It's of your responsibility to:

- **Check for the compatibility of the minors' schedules with your own major's schedule.**
- **Check the prerequisites!**
- **Not register to a course for which you already got ECTS.**
- **Your tutorship agreement must be completed before the 1st day in laboratory**

Vérifiez votre boîte mail quotidiennement ! Check your mailbox daily!



Don't miss any emails from the University!

<https://intranet-etu.univ-cotedazur.fr>

The screenshot shows the 'Intranet ETUDIANT' interface for the University of Côte d'Azur. The navigation menu includes 'MES INFOS', 'MES OUTILS', 'MES ÉTUDES', 'MA VIE ÉTUDIANTE', and 'ACTUALITÉS'. The 'Actualités' section features three articles: 'Comment obtenir ma carte étudiant?', 'The Conversation : Répartition des médailles des JO 2024 et mondialisation du sport', and 'Passport Etudiant : le cours pour découvrir l'Université'. The 'Mes Outils' section contains icons for Moodle, Zoom, and UniAlumni. The 'Messagerie' icon is highlighted with a red circle. A search bar with '@ INTRANET' is visible in the top right corner. A 'Tous les outils' button is located at the bottom right of the tools section, and a 'Toutes les actualités' button is at the bottom center.

**Deadline for application
January 27th
23h00**

Now it's up to you!

<https://ds4h.univ-cotedazur.eu/wishes>

Any question? We can help! ds4h-pedagogie@univ-cotedazur.fr