

International study programs



université
de **BORDEAUX**



Study with us!

France is one of the most popular destinations for international students. It's no wonder with a top-quality, yet accessible, higher education system. And once you're here, what better place to live and learn other than Bordeaux?!

The University of Bordeaux is a multidisciplinary institution with a college of Law, Political Science, Economics, Management, a college of Health Sciences, a college of Human Sciences and a college of Science and Technology. It also includes an Institute of Technology, an Institute of Education and an Institute of Vine and Wine Science.

Around 70 international study programs are on offer at every level (Bachelor, Master, PhD), proposing mobility, teaching in English (or another foreign language) and / or a double degree. We offer over 25 Master programs taught 100% in English.

Read on to discover these study programs...

Our Masters

Economics & Management

Master: European Business Administration

Master: International Business Management

Master (MBA): Business Administration

Master: Economic Affairs

Master: Cancer Biology

PhD: EUREkA / Chemistry of Materials

PhD: Light Sciences and Technologies

PhD: Bordeaux Neurocampus

PhD: Cancer Biology

PhD: Numerics

Science and Technology

Collaborative degree: Aero-System Operations

Master: Image Processing and Computer Vision

Master: Science in Marine Environment

Master: Functionalized Advanced Materials and Engineering

Master: Physical-Chemistry and Chemical Physics

Master: Advanced Materials Innovative Recycling

Master: Advanced Materials for Innovation and Sustainability

Master: Enterprise Engineering

Master: Transfers-Fluids-Materials in Aeronautical and Space Applications

Master: Algebra, Geometry and Number Theory

Master: Agro-Biomedical Science

Master: Biology Agrosociences

Master: Polymer Sciences

Master: Environmental Contamination and Toxicology

Master: EUREkA / Chemistry of Materials

Master: Light Sciences and Technologies

Master: Neuroscience (NeuroBIM)

Master: Neuroscience (Neurasmus)

Master: Euro-Mediterranean Master of Neuroscience (EMN-Online)

Health Sciences

Master: Pharmacovigilance and Pharmacoepidemiology

Master: Analytical Chemistry for Drugs and Natural Products

Master: Public Health Data Science

Master: Cardiac EP - Electromechanical Heart Diseases

PhD: Digital Public Health

PhD: Cardiac EP

Wine Sciences

Master: Wine Tourism Innovation

*Economics and
Management*



MASTER European Business Administration

Program factsheet

ADMISSION REQUIREMENTS

Applicants must fulfill the following requirements:

- › Have completed, with honors, a Bachelor 3 year (180 ECTS equivalent) or 4 year degree (240 ECTS equivalent) in any study field.

LEVEL

First year (Master 1) of the Business Administration program.

PROGRAM DURATION

1 year (60 ECTS).

TUITION FEES

Total cost of 4,240€.

LANGUAGE REQUIREMENTS

The language test in English is not mandatory if you are a native English speaker or if you have already studied in English.

- › TOEFL IBT 90
- › IELTS 6.5 no sub-score under 6
- › Cambridge: Certificate in advanced English
- › TOEIC "listening and reading": 890/990, "speaking and writing": 300/400
- › PTE Academic 65.

Strengths

Access to the "MyFinanceLab" online platform. This platform guides students with our main book "Corporate Finance", providing fully integrated homework, tests and tutorial system.



Internationally recognized teaching team.



Strong class diversity with students from different academic backgrounds.



Supportive learning environment with a rigorous curriculum covering the basics of management.



Excellent resources and state-of-the-art facilities.

Program outline

The Master 1 (M1) European Business Administration (EBA) is composed of introductory management and law courses taught entirely in English by European and international professors as well as faculty staff.

The aim of this Master 1 is to provide students from different academic backgrounds with the basic principles of management.

College of Law, Political Science,
Economics & Management

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Program structure

Semester 1

- › Organizational behavior I
- › Organizational strategy
- › Economic globalization
- › European economic environment
- › European institutions
- › European law I
- › International accounting I
- › Financial mathematics
- › Decision-making and statistical analysis
- › French as a foreign language

Semester 2

- › Marketing
- › Human resources
- › International strategy
- › Corporate finance
- › Banking and finance in Europe
- › European law II
- › International accounting II
- › Business French
- › Internship / dissertation

How to apply?

Complete the online application form for the EBA program via the following link:

<http://iaebordeaux.com/Our-programs/Master-1-in-European-Business-Administration>

Once the online application form completed, send the following documents to the International Office at the following email address:

iae.applications@u-bordeaux.fr

- › Official transcripts
- › Copies of all previous diplomas
- › Passport copy (or ID card if European)
- › Cover letter and CV (in English)
- › Certificate of English language level
- › Passport photo

→ And after?

- › By completing this first year (M1), students gain the necessary skills and groundwork to directly enter the one-year Master in Business Administration (M2 MBA) as well as other Master 2 programs in management.
- › The program also trains and prepares students for executive positions in companies.

Please note:

- › Maximum number of students per class: 25
- › The selection procedure is based on student motivation and interviews.
- › Good previous academic results and strong social skills are the most important selection criteria for the program.

Contacts

Program director: Pedro Arbulu

› iae.applications@u-bordeaux.fr / +33 (0)5 56 00 97 19

Program coordinator: Juliana Faye

› juliana.faye@u-bordeaux.fr / + 33 (0)5 56 00 45 23

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TOMORROW'S SUCCESS
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MASTER International Business Management

Program factsheet

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Have completed, with honors, a Bachelor degree (4 year program), or a 4 year/240 ECTS equivalent course. In addition, one or two years of professional experience within an international environment is welcome.
- › For the study field, degrees in Business Administration, Management, Economics and Law are favored, however all specialties are accepted.

LANGUAGE REQUIREMENTS

The language test in English is not mandatory if you are a native English speaker or if you have already studied in English.

- › TOEFL IBT 90
- › IELTS 6.5 no sub-score under 6
- › Cambridge: Certificate in advanced English
- › TOEIC "listening and reading": 890/990, "speaking and writing": 300/400
- › PTE Academic 65.

LEVEL

Second year (Master 2) degree.

TUITION FEES

Total cost of 5,240€.

PROGRAM DURATION

1 year (60 ECTS).

Program outline

The Master's degree in International Business Management is dedicated to the general field of international business management with a specialization in geopolitics and cross cultural management. This generalist program has a strong analysis-oriented focus, aimed at understanding the global business environment.

An extensive first semester curriculum, based on theoretical learning, provides a clear understanding of the real challenges facing managers and organizations operating in a global context. The second semester focuses on practical experience with a 6-month internship, to be carried out in France preferably.

Strengths

The International Business Management program prepares students for executive positions in international companies or in subsidiaries that specialize in international markets. A generalist program, all company functions are covered during the cursus and students learn about the various different operational stages involved when a company goes global.

In addition to the fundamental knowledge and skills essential for international managers today, students also have the opportunity to specialize in their sector of interest and to apply the theory learned in the real working world.

The International Business Management program also represents a great opportunity to live a multicultural experience in and outside the classroom, thus revealing the reality of working in a multicultural and multilingual environment. An average of 15 nationalities are represented per cohort and students are able to discuss current, global issues with people from different backgrounds, and as a result, gain a truly international outlook.

Program structure

Various teaching and assessment methods are used. During seminars, a variety of teaching/learning methods are used: course-work based assessment such as exercises, case studies and group projects, oral presentations (both written and oral) as well as tests and a final report on the internship completed in the second semester.

Some classes mix international students with French students from the French version of the International Business Management program.

Semester 1

- › French as a foreign language
- › International business law
- › International trade practices
- › Logistics and supply chain management (including a commented visit to the Grand Maritime Port of Bordeaux)
- › International strategic management
- › Information system, intelligence and security policies
- › Cross-cultural management (anthropological approach), along with fundamentals in anthropology and sociology and the management of multicultural teams
- › Geopolitics (with a focus on emerging countries and risks)
- › International economics
- › International marketing, digital marketing
- › International accounting and finance
- › Global human resources management

Semester 2

- › Serious game
- › International and intercultural communication
- › Innovation
- › Doing business in France (including visits to French companies)
- › Wine business economics (including visits to wineries, cooperage craftsman, etc.)
- › Internship (followed by an academic dissertation as well as an oral defense)

How to apply?

Complete the online application form for the IBM program via the following link: <http://iaebordeaux.com/Our-programs/Master-2-in-International-Business-Management>

Once the online application form completed, send the following documents to the International Office at the following email address: iae.applications@u-bordeaux.fr

- › Official transcripts
- › Copies of all previous diplomas
- › Passport copy (or ID card if European)
- › Cover letter and CV (in English)
- › Certificate of English language level
- › Passport photo

→ And after?

- › The International Business Management program develops not only new skills but also new ways of thinking. Providing advanced training in business and management, the Master degree represents a true asset to students wishing to launch an international career.

Please note:

- › Maximum number of students per class: 25
- › The selection procedure is based on student motivation and interviews.
- › Good previous academic results and strong social skills are the most important selection criteria for the program.

Contact

Program director: Emmanuelle Sauvage
› emmanuelle.sauvage@u-bordeaux.fr / +33(0)5 56 00 45 24

Program coordinator: Juliana Faye
› juliana.faye@u-bordeaux.fr / + 33 (0)5 56 00 45 23



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TOMORROW'S SUCCESS
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MASTER Business Administration (MBA)

Program factsheet

ADMISSION REQUIREMENTS

Applicants must fulfill the following requirements:

- › Have completed, with honors, a Bachelor degree or 4 year (240 ECTS equivalent) course in the field of business.

OR

- › Have consequent work experience in the field of business.

LEVEL

Second year (Master 2) of the Business Administration program.

PROGRAM DURATION

1 year (60 ECTS).

TUITION FEES

Total cost of 5,240€.

LANGUAGE REQUIREMENTS

The language test in English is not mandatory if you are a native English speaker or if you have already studied in English.

- › TOEFL IBT 90
- › IELTS 6.5 no sub-score under 6
- › Cambridge: Certificate in advanced English
- › TOEIC "listening and reading": 890/990, "speaking and writing": 300/400
- › PTE Academic 65.

Strengths

Access to the "MyFinanceLab" online platform. This platform guides students with our main book "Corporate Finance", providing fully integrated homework, tests and tutorial system.



A core curriculum that provides students with in-depth knowledge of the academic disciplines as well as experience within the day to day operations of business leaders.



Guaranteed return on investment in education.

Program outline

The aim of the MBA is to develop an advanced level of knowledge within the domains of business and management with a focus on Corporate Finance and Accounting.

The program is taught entirely in English by European and international professors and professionals as well as faculty staff.

The MBA program is committed to the education and development of business leaders who will have the knowledge and skills to create value for their stakeholders and society. It develops ideas and a mindset that encourage global transformation from a business perspective.

College of Law, Political Science,
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Program structure

Semester 1

- › European economic environment II
- › Business law
- › Organizational behavior II
- › Financial statements analysis
- › Financial accounting
- › International marketing
- › Financial markets
- › French as a foreign language
- › Decision-making and corporate finance

Semester 2

- › Cost accounting and management control
- › Investment and portfolio management
- › Risk management
- › Business and strategic policy
- › Information and project systems
- › Business game
- › Operations and logistics management
- › Internship

How to apply?

Complete the online application form for the MBA program via the following link:
<http://iae.u-bordeaux.fr/Our-programs/Master-2-in-Business-Administration>

Once the online application form completed, send the following documents to the International Office at the following email address:

iae.applications@u-bordeaux.fr

- › Official transcripts
- › Copies of all previous diplomas
- › Passport copy (or ID card if European)
- › Cover letter and CV (in English)
- › Certificate of English language level
- › Passport photo

→ And after?

- › The program prepares students for high-level executive positions in company headquarters or subsidiaries.

Please note:

- › Maximum number of students per class: 25
- › The selection procedure is based on student motivation and interviews.
- › Good previous academic results and strong social skills are the most important selection criteria for the program.

Contacts

Program director: Pedro Arbulu

- › iae.applications@u-bordeaux.fr / +33 (0)5 56 00 97 19

Program coordinator: Juliana Faye

- › juliana.faye@u-bordeaux.fr / + 33 (0)5 56 00 45 23

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MASTER Economic Affairs

Program factsheet

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a 4-year Bachelor degree or a 3-year Bachelor and a Master (Year 1) degree (equivalent to a total of 240 ECTS) in any field, but preferably in economics, management, business administration, or law.
- › Demonstrate a clear interest or commitment to international affairs.

LANGUAGE REQUIREMENTS

- › English proficiency is essential and must be certified by an official test result (TOEIC, TOEFL, IELTS, Bulats or Cambridge Certificate). A minimum B2 level according to the CEFR is required.
- › Please note: tailored language courses in French (beginner to advanced) and in English (intermediate to advanced) are included in the three-month intensive preparatory program (University Diploma in European Economic Affairs).

LEVEL

Master degree (Year 2).

PROGRAM DURATION

1 year (60 ECTS).

Program outline

The Master in Economic Affairs is one of the 18 postgraduate Master programs offered by the College of Law, Political Science, Economics and Management of the University of Bordeaux. It is a fulltime degree taught in English, open to international and French university graduates. The program is also designed for life-long learners with a professional background wishing to resume their studies in order to increase their earning potential and/or access new career opportunities.

In this one-year course, students gain deep insight into essential and present economic topics in international affairs. In addition, the program offers hands-on exercises, and allows students to develop valuable and marketable professional and soft skills in an intercultural environment.

What distinguishes the program is its focus on specific European and international trade and financial policies and business transactions using analytical tools from economics, political science, management, business, and law.

The program provides companies with managers ready to deal with intercultural management and international trade situations.

The Master in Economic Affairs is ideal for students who wish to deepen their theoretical and practical knowledge of international affairs, who aspire to a career in the international arena and who want to add an international dimension to their educational background. It is also an ideal program for those who wish to take part in a multicultural experience in a culturally rich and dynamic environment and who desire to strengthen their proficiency in English as well as acquiring basic language skills in French.

College of Law, Political Science,
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Program structure

September to November:

The University Diploma in European Economic Affairs (*DU Affaires Économiques Européennes*) is a three-month intensive preparatory program specifically designed for prospective students. This program offers intensive elementary-to-advanced French language courses for international students, intermediate-to-advanced English language courses for non-native speakers, remedial courses in international and European economics, practical courses on e-commerce trends and tools for B2C and B2B companies, business trips and access to cultural and intercultural activities and events.

December to June:

Courses for the MEA start in December.

Semester 1

(30 ECTS - 180 hours)

- › International contract law
- › European markets dynamics and specificities
- › European fiscal optimisation
- › European populations
- › Exchange rates risk
- › International payments
- › Trading and shipping
- › Business knowledge and entrepreneurial thinking
- › Leadership
- › Macroeconomic issues

Semester 2

(30 ECTS - 180 hours)

- › Communication methodology
- › Business development project
- › E-Economy
- › Innovation
- › International financial reporting
- › Intellectual property rights
- › Intelligence économique (course in French)
- › Luxury economy

How to apply?

All applicants must submit:

- › An updated resume and cover letter
- › At least two letters of reference from former or current university professors and/or employers
- › Copies of their most advanced diplomas and course transcripts
- › Official English proficiency test results for non-native speakers

Please email these documents to the Program Director, Cécile Cormier (cecile.cormier@u-bordeaux.fr).

The program is selective and admission is decided according to the diplomas, academic and/or professional background, language skills and the student's motivation. If necessary, admission may be conditioned to the completion of the three-month intensive preparatory program (University Diploma in European Economic Affairs) prior to the start of the Master 2 program.

Contacts

Program Directors:

Cécile Cormier, Associate Professor in American Studies
cecile.cormier@u-bordeaux.fr

Bertrand Blancheton, Dean of the Faculty of Economics
bertrand.blancheton@u-bordeaux.fr

For more information about the registration process:

Frédéric Guyot

frederic.guyot@u-bordeaux.fr / +00 33 (0)5 56 84 54 78

or visit: economie.u-bordeaux.fr/Formations

→ And after?

The program prepares students for a broad range of careers in the international business and trade areas:

- › Export manager
- › Transnational contracts negotiator
- › Trade manager
- › Customer service manager
- › Area manager

Strengths



The goal of the program is to develop a range of marketable skills and competences needed to carry out functions in international trade (exchange rates risk management, international payments, trading and shipping, economic intelligence) and intercultural businesses (market dynamics and specificity, leadership).



The program combines courses in both theory and practice, includes field visits, and focuses on working methods, readings, team-work and management projects. Courses are designed and delivered by academics from the University of Bordeaux, visiting professors from partner universities abroad, as well as professionals from French and international companies.

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TOMORROW'S SUCCESS
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*Science and
Technology*



Collaborative Degree Aero-System Operations (AESOP)

Program factsheet

ACADEMIC COOPERATION

Consortium of two universities:

- › **USA:** University of Cincinnati (Ohio).
- › **FRANCE:** University of Bordeaux: College of Science and Technology.

ADMISSION REQUIREMENTS

University of Bordeaux:

- › Hold a European Bachelor degree or a European Professional Bachelor diploma with 180 ECTS/90 US credits within a College of Science. This training must be accompanied by three years professional experience; or
- › Hold a Master degree with at least 240 ECTS/120 US credits within a College of Science.

University of Cincinnati:

- › Hold a US Bachelor degree with 240 ECTS/120 US credits within a College of Science.

LEVEL

Collaborative Degree Program.

PROGRAM DURATION

1 year (60 ECTS - 30 US credits).

LANGUAGE REQUIREMENTS

Students for whom English is not the mother language require a minimum level of: IELTS (6,5 mini), Pearson (59, TOEFL (85), European Level (B2), TOEIC (750).

TUITION FEES

- › Annual tuition fees: 24,000 USD
- Significant reductions exist upon application, depending on the university/country of origin:
- › Students from partner universities: 11,000 USD
 - › Students from other international universities: 15,000 USD

Program outline

With global competition and the consumer demand for innovation becoming ever-more imperative, the need for collaborative engineering is prevalent throughout today's market. The realm of air traffic management and safety –both civilian and defense– is no different.

The University of Bordeaux/IMA and the University of Cincinnati College of Engineering and Applied Science (UC CEAS) have partnered to develop the Aero-System Operations (AESOP) Collaborative Degree Program.

Students at each university pursue UC CEAS' Master of Engineering Degree and UBx's International Diploma concurrently and graduate with **both degrees**. This program offers a practice-oriented, individualized degree that prepares engineers to excel in today's working world.

Strengths

Engineering fields, as a whole, have experienced explosive growth over the past decade, especially that of Aeronautical, Mechanical, Electrical, Electronic and Computer Engineering as well as Computer Science.

In today's competitive technology environment, top opportunities are going to skilled engineers who have broad professional capabilities. The AESOP curriculum provides advanced training to those interested in expanding their knowledge and expertise. Advantages of the graduate degree include:



- › Maintain licensure requirements with graduate courses



- › Gain a unique international graduate study experience



- › Expand your knowledge and marketability



- › Broaden your understanding of engineering through an interdisciplinary focus



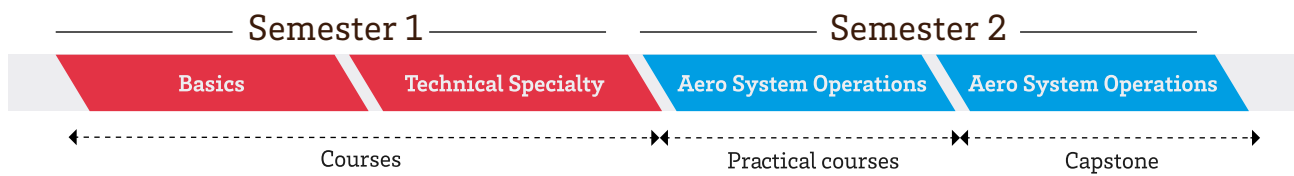
- › Increase your earning potential



- › Follow some courses online

Program structure

Collaborative Degree **Aero-System Operations**



Fall semester: Cincinnati

Basics (18 credits)

AESOP Program Requirement (6 credits, mandatory)

- › Introduction to Aircraft Systems
- › Regulations and Maintenance

Project / Task Management Development (6 credits, choose one)

- › Engineering Economic Analysis
- › Quality Control
- › Project Management
- › Entrepreneurship and Technology Law

Interpersonal Skill Development (6 credits, choose one)

- › Management of Professionals
- › Leadership
- › Effectiveness in Technical Organizations

Technical Specialty (12 credits, choose two courses)

- › Aeronautical Engineering
- › Mechanical Engineering
- › Electrical, Electronic and Computer Engineering
- › Computer Science

→ And after?

Studies:

- › The AESOP program provides a complete panel of individual training modules about Aerospace Operations, Aircraft Maintenance and Aircraft Life Management Cycle. After graduating, these modules may be followed individually, thus bringing complementary qualifications.

Employment market:

- › After obtaining the international AESOP Collaborative Degree, graduates will be equipped to quickly and efficiently take on an operational position within the aircraft industry.

Spring semester: Bordeaux

Aero-System Operations (22 credits)

Airworthiness UBx/ENAC and Maintenance Program Planning (6 ECTS, mandatory)

Each module includes theory, applications and lab (4 ECTS, choose one):

- › Maintenance Repair & Overhaul
- › Continuous Airworthiness Maintenance Organization

Each module includes theory, applications and lab (12 ECTS, choose one):

- › Avionics Maintenance
- › Structural Aircraft Maintenance
- › Propulsion Aircraft Maintenance

Aero-System Operations (8 credits)

Capstone project: project or internship with choice of sponsored research at UBx laboratory or internship at industry level.

How to apply?

UBx students:

- › <http://www.u-bordeaux.com/Education/International-study-offer/Programs/Science-and-Technology>

UC students:

- › <http://www.uc.edu/admit.html>

Contact

PROGRAM COORDINATORS:

UBx / IMA, Mérignac

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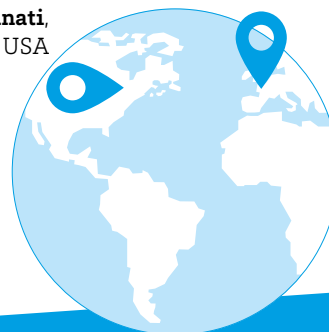
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› www.uc.edu



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TOMORROW'S SUCCESS
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MASTER Image Processing and Computer Vision (IPCV)



Program factsheet

ACADEMIC COOPERATION

Consortium of 3 universities:

- › Pazmany Peter Catholic University, Budapest, Hungary (PPCU)
- › Universidad Autónoma de Madrid, Spain (UAM)
- › University of Bordeaux, France (UBx).

LEVEL

Triple Master degree, completed by three diploma supplements.

Students who successfully complete the International Image Processing and Computer Vision (IPCV) Master Program, including the compulsory mobility period, receive a national degree from each partner university:

Pazmany Peter Catholic University:

- › MSc degree in Computer Science Engineering; specialization in Image Processing and Computer Vision.

Universidad Autónoma de Madrid:

- › International Joint Master Degree in Image Processing and Computer Vision.

University of Bordeaux:

- › Master degree in "Informatique", (Computer Science); Image Processing and Computer Vision.

A diploma certification is additionally awarded by each university.

TUITION FEES

- › Self-funded program country students: 3,000 € per year (6,000€ for 2 year-program).
- › Self-funded partner country students: 4,500€ per year (9,000€ for 2 year-program).

PROGRAM DURATION

2 years (120 ECTS).

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree or equivalent in engineering science, mathematics, computer science or signal processing before the start of the program.
- › Average grade of at least "Good" according to local criteria for the courses completed before the mobility period.
- › Adequate knowledge of written and spoken English, equivalent to B2 according to the CEFR B2 or IELTS score of 6.5 or TOEFL of 90. Native English speakers do not have to submit English test results.

LANGUAGE REQUIREMENTS

English: equivalent to B2 according to the CEFR.

Program outline

The International Master Program in Image Processing and Computer Vision (IPCV program), managed by the University of Bordeaux, provides specialized training in a field of increasing importance in our daily lives. It is essential in domains such as medicine, surveillance, industrial control, remote sensing, e-commerce and automation.

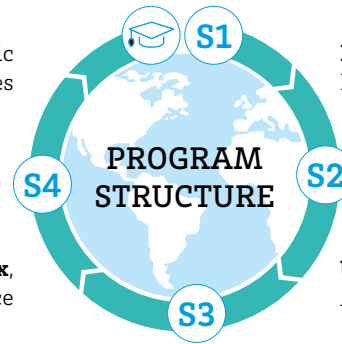
The IPCV Master Program covers a wide range of methods in computer vision and guarantees highly-qualified graduates in this field.

Three partner universities, with internationally recognized experience in these domains, have pooled their complementary expertise and developed this international postgraduate cooperation initiative.

The IPCV program is an Erasmus Mundus Joint Master Degree developed under the Key Action 1 of the Erasmus+ program.

All students follow a common mobility scheme and course curriculum.

Internship in academic laboratory or industries



PCU,
Budapest, Hungary

UBx,
Bordeaux, France

UAM,
Madrid, Spain

All students follow the same mobility schemes and the same curriculum. Each semester is awarded 30 ECTS.

Semester 1

Pazmany Peter Catholic University:

- › Fundamental and theoretical knowledge in mathematics, electronic computing, signal and image processing, sensors and parallel computing.

Semester 4

- › The last semester is dedicated to an internship at a company or research laboratory anywhere in the world.

Semester 2

Universidad Autónoma de Madrid:

- › Video analysis, medical image processing and analysis, biometrics, computer vision for surveillance problems and initiation to research.

Semester 3

University of Bordeaux:

- › Object-programming, deep learning, image reconstruction, variational modeling, project-management.

→ For more details

Please consult the website:

- › www.ipcv.eu/programme/courses

Strengths



International program taught by experts from three different universities in Europe.



Triple Master degree.



International mobility period in three countries.

→ And after?

After graduation, students have access to career opportunities such as engineers or further research as doctoral students. Their educational background makes them attractive candidates for companies in the following areas:

- › E-commerce
- › Medical imaging
- › Personal assistance
- › Automation
- › Industrial control
- › Security
- › Post-production
- › Remote sensing
- › Software publishing

How to apply?

Please send **Curriculum Vitæ, grades, cover and recommendation letters** to:

- › application-ipc@u-bordeaux.fr

Please note: the next academic year starts in August 2021 and the deadline for applications is early February 2021.

Contact

- › ipc@u-bordeaux.fr
- › www.ipcv.eu



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TOMORROW'S SUCCESS
STARTS **TODAY**

MASTER Science in Marine Environment (MER+)

Program factsheet

ACADEMIC COOPERATION

Consortium of 4 universities:

- › University of the Basque Country, Spain (coordinator institution)
- › University of Southampton, U.K.
- › University of Bordeaux, France
- › Université de Liège, Belgium

LEVEL

Multiple Master of Science degree in "Marine Environment" awarded by the three consortium universities where the student has studied.

ADMISSION REQUIREMENTS

Candidates must have:

- › A Bachelor degree or equivalent from a European or third country university in the field of biosciences, chemical sciences, geosciences, physical sciences or engineering.

LANGUAGE REQUIREMENTS

The teaching language is 100%

English. Proof of proficiency in English is essential.

- › The minimum requirements for non-native speakers are an IELTS score of 6.5 or TOEFL 570/227, or an equivalent approved by the Joint Program Board of the Consortium (JPB).

PROGRAM DURATION

2 years (120 ECTS).

TUITION FEES

Annual fees:

Irrespective of the chosen study track:

- › Third country students*: 9,000€/year
 - › European students / assimilated as European*: 4,500€/year
- *according to Erasmus Mundus rules*

Scholarships:

Irrespective of the chosen study track:

- › Erasmus Mundus scholarships
- › Erasmus mobility grants
- › Mobility grants funded by the Spanish Government and the Basque Government

Students choosing to study in Bordeaux:

- › Mobility grants available according to excellence criteria funded by the Initiatives of Excellence in Bordeaux and Bilbao (i.e. the Excellence programs of the Universities of the Basque Country and of Bordeaux: Euskampus, IdEx - International Master, www.aquimob.fr).
- › Mobility grants available according to excellence / social criteria funded by the partner institutions and by regional governments (e.g. Conseil Régional Aquitaine for Bordeaux: www.aquimob.fr).



With the support of the
Erasmus+ Programme
of the European Union

Program outline

The MER+ Master program provides high quality teaching in general oceanography with a specialization in Marine Environment (ecology, ecotoxicology, biochemistry, geochemistry, sedimentology, paleo-oceanography) and living or non-living marine resources.

The MER+ program benefits from a consortium of four EU universities (Bilbao - Spain, Bordeaux-France, Southampton-UK and Liège-Belgium) and a worldwide network of associated partners.

The MER+ Master program is organized according to three teaching semesters (Semester 1-3: coursework) plus a research master thesis (Semester 4) carried out via an internship at any partner research institution worldwide. Mobility is mandatory and three different mobility opportunities are proposed for the coursework:

- › Bordeaux / Bilbao / Southampton.
- › Bordeaux / Bilbao / Liège.
- › Southampton / Bilbao / Liège.



Coursework is organized according to seven mandatory and optional modules (total: 90 ECTS):

- | | |
|--|--|
| <ul style="list-style-type: none"> › Module 1
Fundamental: Ocean Science › Module 2
Framework: Ocean Physical Environment › Module 3
Ocean Biological Environment › Module 4
Anthropogenic Impact on Marine Ecosystems | <ul style="list-style-type: none"> › Module 5
Ocean Observatories and Environmental Monitoring Systems › Module 6
Valorization of the Marine Environment › Module 7
Marine Environmental Careers |
|--|--|

The MSc thesis research is carried out during Semester 4 (30 ECTS) at any Marine Research Institute worldwide.

Strengths



Successful MER+ students acquire a high degree of personal and scientific maturity, due to the wide range of topics taught in the domains of oceanography and marine resource management.



At least three major European academic systems are experienced, and practice in applications for funding etc. at an international level is largely acquired.



Students learn to prove strong mobility, autonomy and the capacity to adapt to different cultural and administrative conditions in the different countries involved.



Having studied in (at least 3) different countries and followed all the lectures and practical workshops in the English language, MER+ students have excellent profiles for starting positions in a scientific career in an international context.

→ And after?

Successful completion of this program will prepare students for a leadership role in various marine sectors such as conservation and environmental management, fisheries, non-governmental organizations and all levels of government positions from local to global. Students benefit from a worldwide network of partner institutions.

From its beginning (2007), the MER program has trained more than 100 students. More than 50% of graduates continue with a PhD. Other graduates integrate public or private organizations in their field of expertise.

How to apply?

Online application:
<http://merplus.merconsortium.eu>

Deadlines:

- › Application for Erasmus Mundus scholarship: mid-March
- › For European self-funded students: mid-May

Contact

MER+ program and application procedure:

- › Master Secretariat at the coordinating University:
<http://merplus.merconsortium.eu>

Track involving Bordeaux:

- › Prof Jörg Schäfer: jorg.schafer@u-bordeaux.fr
- › Florina Camarasu: florina.camarasu@u-bordeaux.fr

www.merconsortium.eu

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TOMORROW'S SUCCESS
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MASTER Functionalized Advanced Materials and Engineering (FAME+)

Program factsheet

ACADEMIC COOPERATION

Consortium of 7 universities:

- › **Belgium:** Université de Liège, Université Catholique de Louvain
- › **France:** Institut National Polytechnique de Grenoble (coordinator), University of Bordeaux
- › **Germany:** Technische Universität Darmstadt, Universität Augsburg
- › **Portugal:** Universidade de Aveiro
- › **Associated partners:**
 - › **Industry:** Schneider Electric Industries SAS; SOLVAY; Robert BOSCH GmbH; MERCK, etc.
 - › **Research & Technology Organizations:** EMMI; CEA; Fraunhofer, etc.
 - › **Worldwide Associated Universities:** University of Waterloo (Canada); Okayama University (Japan); Virginia Tech University (USA); University of Sao Paulo (Brazil); VNU Hanoi University of Science (Vietnam), etc.

LEVEL

Double Master degree in "Material Science" awarded by the two consortium universities where the student has studied.

Program outline

The FAME+ Master is a two-year Master of Science Program in Advanced Functional Materials. It is taught in English (100%) at seven universities, leaders in the field.

This program provides high-level academic and research-oriented education on the synthesis, characterization and processing of all classes of materials with emphasis on "Advanced Hybrid Materials and Ceramics by Design" in Bordeaux.

The program helps students develop a creative thinking mindset and leadership skills, along with a keen awareness of social and industrial needs, thanks to innovative learning practices that include extensive, collaborative projects.

College of Science and Technology

PROGRAM DURATION

2 years (120 ECTS).

LANGUAGE REQUIREMENTS

All courses are taught in English. Applicants must attach an official language test report to their application.

- › IELTS (Academic IELTS only): overall Band Score: 6 / writing Band Score: 5
- › TOEFL, total score: 92 (IBT), 550 (PBT) / writing score: 22 (IBT), 4.0 (PBT)
- › Cambridge Certificate of Advanced English / Cambridge Certificate of Proficiency in English: Grades accepted: A, B, C

These minimum requirements are very strict. If the applicant score does not fulfill the minimum requirements, he/she is not eligible to apply and the application cannot be processed.

ADMISSION REQUIREMENTS

Candidates must have: Bachelor degree in material science or in physics / physical chemistry / chemistry / engineering with a speciality in the field of materials.

TUITION FEES

Annual fees:

- › Erasmus Mundus scholarship holders and self-funded students:
- › 9,000€/yr for third-country students,
- › 4,000€/yr for European students.

FAME+ tuition fees are covered by the Erasmus Mundus grant. Self-funded students should apply for other grant schemes (see below).

Students from partner universities benefit from a fee-waiver and pay only local tuition fees defined by their home university.

Grants:

- › Erasmus Mundus scholarships
- › Mobility grants from partners
- › Mobility grants from applicant countries (e.g. CONACYT in Mexico)
- › Mobility grants from bilateral agreements (e.g. Indian-French Raman-Chrapak Fellowships)

Bordeaux / Darmstadt track:

- › Bordeaux mobility grants
- › International Master IdEx grants (Bordeaux students following M1 in Darmstadt / international students following Bordeaux / Darmstadt track)
- › Eiffel grants (international students already enrolled in Darmstadt for M1, covering 2nd yr in Bordeaux)
- › DAAD grants (Bordeaux students covering 1st yr in Darmstadt)
- › Aquimob grants (www.aquimob.fr)

European mobility is mandatory during the two-year Master program thus taking advantage of the complementary skills of the universities in the network.

In the last decade, more than 200 students have graduated from the FAME+ Master.



With the support of the
Erasmus+ Programme
of the European Union

université
de **BORDEAUX**

Program structure

The FAME+ program consists of four semesters (30 ECTS each) including a Master thesis in a European research laboratory.

- › The first two semesters establish a firm background in Chemistry and Physics of Materials. Professional skills are developed through the FAME+/e project.
- › The third semester is dedicated to a specialization provided by one of the partner universities as world-leading expert. It is composed of mandatory and optional courses. For students studying in Bordeaux, the specialization is "Advanced Hybrid Materials and Ceramics by Design".
- › The last semester is dedicated to the Master thesis, prepared in the academic or industrial research laboratories of the FAME+ network.

Feedback

The EQAB considers FAME+ an excellent initiative for [students] who are interested in interdisciplinary materials science and engineering[...].

EQAB [is] convinced that the FAME+ program is well structured and organized. The FAME+ student community is rather international and has developed perceptible group dynamics, noticeably promoted by the annual FAME+ summer schools [...].

The EQAB was impressed by the wide variety of interdisciplinary research subjects presented at the workshop[s]. It considered some of the presented work excellent or even outstanding, and often at the frontier of the science and technology of functional materials and devices. The EQAB takes this as label of high quality and merit of the program.

Excerpts from External Quality Assessment Board (EQAB) report

→ And after?

After completion of this Master, students are encouraged to apply for PhD programs in Europe.

Graduates may also start working as scientists or R&D engineers within the industrial sector.

More than 70% of the FAME Master graduates from Bordeaux have successfully pursued their studies with a PhD opportunity. These PhDs have been carried out in Bordeaux (~33%), in France (~50%) and in Europe (~87%).

Strengths



High-level academic and research-oriented education about the synthesis, characterization and processing of all classes of materials including:

- › Chemistry and Physics of Materials during the first year.
- › Specialization in one of the seven programs offered by the partner universities.



Improved integration capacity into either academic or industrial R&D teams.



Enhanced employability thanks to innovative learning practices that help students develop a creative thinking mindset and leadership skills, along with awareness of social and industrial needs.



Strengthening of an international culture, including fluency in English, mobility as well as experience of the languages and culture of the countries visited.

Contact

General information on the FAME program:

- › Master FAME coordination: master.fame@grenoble-inp.fr

Information on the Bordeaux / Darmstadt track:

- › Dr. Michael Josse: michael.josse@u-bordeaux.fr
- › Florina Camarasu: florina.camarasu@u-bordeaux.fr

www.fame-master.eu / www.emmi-materials.eu

How to apply?

Online application: www.fame-master.eu

Deadlines:

- › Erasmus Mundus scholarship: 1st recruitment wave in mid-January.
- › Self-funded students, students applying for external grants (IdEx, Eiffel, DAAD, Aquimob...): 2nd recruitment wave in mid-April.

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TOMORROW'S SUCCESS
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MASTER

Physical- Chemistry and Chemical-Physics (PCCP)

Program factsheet

ACADEMIC COOPERATION

Consortium of 5 universities:

- › France: University of Bordeaux (UBx)
- › Belgium: Université de Namur
- › The Netherlands: Universiteit Leiden
- › Spain: Universidad del País Vasco
- › USA: Colorado School of Mines (CSM)

LEVEL

- › Master of Science in Chemistry (specialization in Physical-Chemistry and Chemical-Physics)
- › Dual Master agreement with CSM

LANGUAGE REQUIREMENTS

A good level of English is required: level B2

- › M1: 70% of lectures and all tutorials are taught in English
- › M2: all classes are taught in English

ADMISSION REQUIREMENTS

Candidates must fulfill the following:

Hold a Bachelor degree of Science in Physical-Chemistry, Chemistry, Physics or an equivalent degree.

PROGRAM DURATION

2 years (120 ECTS).

FEES AND SCHOLARSHIPS

- › University registration fees (scholarship students exempted): 200 to 400€. For dual Master degrees, specific fees are applied.

Scholarships are available for the mobility period:

- › International Masters grants: for Bordeaux students, covering 5 to 9 months
- › Aquimob grants: www.aquimob.fr
- › Eiffel grants: for international students, covering a full year in Bordeaux
- › Mobility grants from UBx or host institutions
- › Erasmus program scholarships

Strengths

- › High-level educational and research environment, proposed by the partner institutions
- › Master students acquire project management skills at an international level
- › Mobility during the second year offers access to a wide range of courses and training
- › Dual Master degree opportunity with the Colorado School of Mines
- › International mobility facilitates integration within both academic and industrial domains
- › Supported by the International Masters program within the Bordeaux "Initiative of Excellence"

Program outline

The PCCP program aims to integrate Master students within academic and industrial fields of fundamental physical chemistry. Various aspects are concerned: study of matter and its transformations, analysis and control of physical and chemical processes, light-matter interactions and spectroscopy techniques, modelling of physical and chemical processes from molecular to macroscopic scale.

Applications cover scientific fields ranging from nanotechnologies, photonics, optoelectronics and organic electronics, to environmental sensors and detection systems.

The PCCP Master is supported by high-level educational and research partners, represented by the consortium of universities engaged in the program. Students follow their courses within a challenging, international environment.

Annual summer schools, organized by the consortium partners, complete the students' training by offering a focus on several topics relative to PCCP.

The first year of the Master degree is focused on the fundamental aspects of Physical Chemistry (thermodynamics, quantum chemistry, spectroscopy and numerical tools). The second year is dedicated to specialized topics (advanced spectroscopy and imaging, photonics, computational chemistry, environmental sciences).

Master students choosing to follow the specific dual Master agreement with CSM will spend their first year at the partner university. Upon completion of this specific program, graduates will obtain a dual Master degree.

International aspects of the program are introduced progressively during the first year, with most courses taught in English. A full time 2-month research project is also organized in the context of international scientific project management.

The second year is fully taught in English and international mobility is mandatory (at least during the second semester for the Master thesis work), thus strengthening the international dimension of the degree. Numerous mutualized lectures are carried out featuring high-level, local research activity. Practical aspects are emphasized to favor the future integration of the student within the working world.

Year 1:

Courses are in French, except when international students are attending

- › Numerical methods (6 ECTS)
- › Thermodynamics (6 ECTS)
- › Quantum mechanics (6 ECTS)
- › Inorganic materials or structural analysis (6 ECTS)
- › Theory of chemical bond (6 ECTS)
- › Solid state physics (6 ECTS)
- › Phase transitions and kinetics / Physical chemistry of polymers (6 ECTS)
- › Spectroscopy (6 ECTS)
- › Quantum chemistry and molecular simulation (6 ECTS)
- › Research project / English (6 ECTS)

Year 2:

Courses are in English

- › Molecular simulation (6 ECTS)
- › Photonics, lasers and imaging (6 ECTS)
- › Dielectric and magnetic properties / Large scale facilities / Auto-assembly, polymers and surfactants / Hybrid and nano-materials (6 ECTS)
- › Entrepreneurship / Management / English (6 ECTS)
- › Professional project (6 ECTS)
- › Master thesis: 5-month international internship in an academic or industrial environment (24 ECTS)

→ And after?

After graduation, students are fully prepared to pursue doctoral studies and a career in research. They may also work as scientists or R&D engineers within the industrial field.

Associated business sectors:

- › Chemical analysis
- › Chemistry of the atmosphere and environmental science
- › Energy and photovoltaic technologies
- › Nanotechnologies
- › Aeronautics and space
- › Chemical industries, pharmaceutical technologies
- › Fine chemicals and cosmetics
- › Forensic science and artwork restoration
- › Molecular modeling and simulation

Academic research domains:

- › Spectroscopy / analytical chemistry
- › Astrochemistry
- › Properties of materials, solid state physics, reactivity at the interfaces
- › Nanotechnology
- › Imaging, bio-detection
- › Organic electronics, optoelectronics, and photonics
- › Theoretical chemistry, molecular modeling and simulation etc.

Other possible activities:

- › Teaching, education and dissemination of scientific knowledge
- › Linking public and private actors in research, development and marketing
- › Participating in the purchase and investment of scientific equipment

Contact

masterpccp@u-bordeaux.fr

COORDINATOR:

Frédéric Castet

+33 (0)5 40 00 38 63

frederic.castet@u-bordeaux.fr

<http://masterpccpbordeaux.wix.com/pccp>

How to apply?

- › Applications may be completed online:
<http://masterpccpbordeaux.wix.com/pccp>



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TOMORROW'S SUCCESS
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MASTER Advanced Materials Innovative Recycling (AMIR)

Program factsheet

CONSORTIUM

Six universities:

- › France: University of Bordeaux
- › Portugal: NOVA University of Lisbon
- › Belgium: University of Liege
- › Germany: Technical University of Darmstadt
- › Spain: Technical University of Madrid
- › Hungary: University of Miskolc

Four research and technological organizations:

- › France: CEA, the French Alternative Energies and Atomic Energy Commission
- › Belgium: CRM Group (Centre de Recherches Métallurgiques)
- › Germany: Fraunhofer Society
- › Spain: Spanish National Research Council (CSIC)

Three large industries:

- › ArcelorMittal, Arkema, Veolia (VERI)

LEVEL

Master of Science in Chemistry (specialization in Advanced Materials Innovative Recycling).

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree in Engineering and Environmental Sciences with advanced knowledge in Chemistry (minimum 3 years of study / 180 ECTS), or a Bachelor degree in Chemistry, Physical-Chemistry, Materials (or Matter) Sciences.

LANGUAGE REQUIREMENTS

This Master program is taught entirely in English. Students must possess a good level (level B2) of English.

PROGRAM DURATION

2 years (120 ECTS).

FEES AND SCHOLARSHIPS

- › 2,000€ per year for students from Erasmus+ 'program countries', 4,000€ per year for students from 'partner countries'.

Scholarships:

- › EIT-labelled "AVSA" grants of 13,500€ guaranteed to all successful candidates, for both EU and non-EU students.

Program outline

The AMIR Master program focuses on the raw material value chain, with particular emphasis on recycling. The two main objectives are:

- › Educate students to become highly-skilled European professionals with expertise in various types of materials. This expertise will enable them to develop, at a large and ambitious scale, new methods for material recycling. In addition, the AMIR program includes classes on transferable skills such as innovation, ethics, intellectual property, life cycle assessment, sustainability and advanced research strategies.
- › Develop a deep entrepreneurship mind-set with the help and expertise of associated businesses, incubators and innovation services as well as a large panel of industries.

MOBILITY

Students choose to spend their first year at either the University of Bordeaux, NOVA University Lisbon or the University of Miskolc. Second year options are the Technical University of Darmstadt, the University of Liège or the Technical University of Madrid.

Students indicate their preferences during the application phase and are assigned both first and second year universities on entering the Master program

- › Consult the website: www.amir-master.com/program for course content details at each consortium member.

Program structure

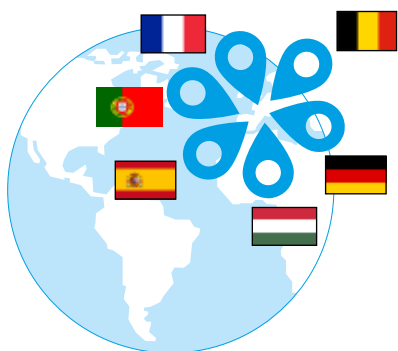
The first year of the Master program takes place at either the University of Bordeaux or NOVA University of Lisbon and includes a module focused on entrepreneurship

Students learn about general and technical aspects of the raw material value chain (general chemistry, material science, lifecycle of materials) as well as about the main outcomes of the European Institute of Innovation and Technology (EIT): sustainability, intellectual transformation, value judgments (ethical, scientific and sustainability challenges), creativity, innovation, leadership and entrepreneurship.

Year 1

Advanced materials & recycling, transversal knowledge (60 ECTS)

- › Bordeaux
- › Lisbon
- › Miskolc



How to apply?

The application procedure may be consulted on the website:
www.amir-master.com

Contact

amir.master@u-bordeaux.fr
www.amir-master.com



The third semester is dedicated to a specialization in one of the partner universities (see below). This part of the program offers the possibility to follow selected advanced materials classes for various applications (energy, e-mobility - magnets, transport, environments - catalysis, etc.). The specializations are: material design for recycling in Darmstadt, metallurgy and metals recycling in Liege, mineral recycling for construction and other sectors in Madrid.

The program is completed with a three to six months' internship (Master thesis).

Year 2

Disciplinary knowledge: engineering and innovation (60 ECTS)

Specializations:

- › Darmstadt: material design for recycling
- › Liege: metal recycling
- › Madrid: mineral recycling

Bordeaux: intellectual transforming skills for innovation

Industry internship (30 ECTS)

Arkema, Arcelor-Mittal, Veolia or research & technology organizations: CSIC, BRGM, CEA, CRM, Fraunhofer, etc.

→ And after?

- › The AMIR program benefits from a strong academic, research and industrial network.
- › After graduation, students are prepared to integrate the working environment as professionals in the recycling sector (process optimization, materials design, plant administration, project management, etc.) whether it be in the industrial field or governmental organizations. Possible sectors include: information and communication technologies, building construction, energy, machinery tools, mobility.
- › Graduates also obtain the necessary skills and knowledge to set up their own company or work in sales and marketing.
- › Finally, further doctoral studies are another possibility and students may apply for Ph.D. programs in Europe, including those offered in the framework of the European Multifunctional Materials Institute (EMMI : www.emmi-materials.eu).

Strengths



AMIR graduates are international entrepreneurs and innovators, able to work anywhere in Europe and beyond.



High-level education and research environment.



Practical insights with advanced research labs.



High-quality internships.



Mandatory international and intersectoral mobility.



Supported by the European Institute of Innovation & Technology (EIT) and the International Master program of the Bordeaux "Initiative of Excellence" (IdEx).



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TOMORROW'S SUCCESS
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MASTER Advanced Materials for Innovation and Sustainability (AMIS)

Program factsheet

CONSORTIUM

Five universities:

- › France: Grenoble INP, University of Bordeaux
- › Finland: Aalto University
- › Germany: T.U. Darmstadt
- › Belgium: University of Liège

Industrial Partners:

- › Luxembourg: ArcelorMittal
- › France: CEA
- › Germany: Fraunhofer

LEVEL

Master of Science in Chemistry.

PROGRAM DURATION

2 years (120 ECTS).

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Applicants should hold a Bachelor's degree in Science/Technology or Engineering (Physics, Chemistry, Materials Science) or its equivalent within the year of application.

LANGUAGE REQUIREMENTS

This Master program is taught entirely in English. Students whose native language is not English must pass the TOEFL or IELTS exams.

IELTS :

- › Overall Band Score: 6.5
 - › Writing Band Score: 5.5
- TOEFL:
- › Total score: 92 (IBT), 580 (PBT)
 - › Writing score: 22 (IBT), 4.0 (PBT)

FEES AND SCHOLARSHIPS

- › European students: 1,000 euros/year
- › International students: 8,000 euros/year
- › Costs include institutional tuition fees, insurance and participation in teaching activities (lab courses, MSc research project etc.)
- › Students applying for scholarships: mid-February
- › Other students (self-funded): mid-May

Strengths



Develop expertise in the field of innovative and sustainable advanced materials.



Meet, study and work with relevant academic and non-academic contacts in the innovation and entrepreneurship ecosystem.



Gain a holistic view on value and process chains.



Acquire transferable skills through modern teaching methods. These transferable skills include: entrepreneurship, negotiation techniques, intellectual property, problem solving, working cooperatively and creatively, co-designing, and life cycle approaches.

Program outline



Funded by EIT RawMaterials since 2015 and labelled by the EIT (European Institute of Innovation and Technology) since 2016, AMIS is a Master program in Advanced Materials for Innovation and Sustainability which explores the theme of "Substitution of critical or toxic materials in products for optimized performance". It also covers the topics of "Material chain optimization for end-of-life products" and "Product and services design for the circular economy" - all of which are central themes of the AMIS.

The primary focus of the AMIS program is metal and mineral raw materials. Bio-based and polymer materials are studied in view of their substitution potential. Other materials are also analyzed in the context of multimaterial product recycling.

In addition, the AMIS program includes a solid package of courses and project work in innovation and entrepreneurship.

Program structure

Mobility is integrated within the two-year program, during which students study at two of the consortium partner universities. Upon completion of the program, graduates are awarded 120 ECTS and a double degree delivered by two of the five partner institutions where they studied.

Students begin the Master program at Grenoble INP, Aalto University or T.U. Darmstadt. In their second year, students specialize in another partner university:

- › To attend the specialization year offered at the University of Bordeaux, prospective students must attend the first year at either Aalto University or the Technical University of Darmstadt.

Year 2 specializations are the following:

- › University of Bordeaux: Advanced Hybrid Materials: Composites and Ceramics by Design
- › T.U. Darmstadt: Functional Ceramics: Processing, Characterization and Properties
- › Aalto University: Nanomaterials and interfaces: Advanced Characterization and Modeling
- › University of Liège: Nanomaterials and Modeling
- › Grenoble INP: Materials Interfaces: Surfaces, Films & Coatings

Master 1: Basic level competencies.

Mandatory courses in:

- › Fundamentals of materials science
- › Applied materials
- › Modelling tools and materials
- › Innovation, business and entrepreneurship.

Joint collaboration courses with AMIS partners:

- › Inno project I: business model development and the commercialization process of new technologies.
- › Summer camp: a week intensive course working in teams on industry case studies to create and produce new ideas, innovative technologies, improved products or services.
- › Internship: work experience in a company or research organization to develop a solution-focused approach by translating innovations into feasible business solutions and commercializing new technologies.

Master 2: Specialization year.

Mandatory courses in:

- › Advanced functional materials with a specialization in material interfaces, nanomaterials, ceramics or hybrids.

Joint collaboration course with AMIS partners:

- › Practical work on various industrial projects integrated with innovation and entrepreneurship contents.
- › Inno project II: a specialized approach on business model development and commercialization process of new technologies.

Master thesis:

- › A research and development experience in material science jointly supervised by the home university professors and the host partners. The results of the Master thesis will be defended during a presentation. Certain subjects may lead to setting up a business or a spin-off.

How to apply

- › Applications may be completed online:
www.amis-master.eitrawmaterials.eu

→ And after?

As a resource engineer, students may continue in the following fields:

Freelance and entrepreneurship:

- › Create a business or become a consultant

Resource industry:

- › SMEs in chemistry, exploration, green energy, machinery and plant construction, metal working industry, ceramics, environmental economy (R&D, product development, management, production, marketing and sales)

Research:

- › Universities, research institutions, lecturer or managerial position
- › Circular economy
- › Production, analytics, management, marketing and sales

And also:

- › Science journalism, consulting, project development and management, advisor to policy makers, administration, specialist agencies and media.

Contacts

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Sarah Fignes

- › sarah.fignes@u-bordeaux.fr

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TOMORROW'S SUCCESS
STARTS **TODAY**



MASTER Enterprise Engineering

Program factsheet

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree with four years of study in any field (240 ECTS equivalent), or have completed the first year of a Master within the domain of Science and Technology.
- › This international Master concerns students who have completed four years university studies and who wish to receive professional training in the area of Enterprise Modelling, Integration and Interoperability, with the goal of developing an international career.

- › Admission is decided according to the diploma. If necessary, candidates are convened for an interview (face-to-face or via Internet).

LANGUAGE REQUIREMENTS

English: candidates must possess a good level of listening and writing in order to follow lectures and pass exams.

LEVEL

International Master (year 2).

PROGRAM DURATION

1 year (60 ECTS).

TUITION FEES

3,000€.

Program outline

The Master of Enterprise Engineering program is organized over one year corresponding to semesters 9 and 10 (year 5) of the overall university education cycle.

Training takes place in France (Bordeaux) and is dedicated to the teaching of Enterprise Engineering. The first semester (September to December) is concerned with lectures, exercises and practical work; the second semester (January to July) is concerned with projects and an internship (within a company or a research laboratory).

The Enterprise Engineering program benefits from the expertise of the Industrial Engineering research group at the IMS laboratory, University of Bordeaux. This expertise is well recognized at national and international levels in the field of industrial engineering.

The Productics group has developed and maintained close relationships with the industrial world for more than 35 years.

Lectures, exams and internship report are conducted exclusively in English. The courses are validated by written and/or oral exams, and the internship is subject to a report/memoir and a presentation in front of a jury.

Once the Master studies are completed, graduates obtain a Master Degree of the University of Bordeaux, an official national diploma in France.

Program structure

Semester 1

SEPTEMBER TO DECEMBER

- › Information System and Interoperability (ISI)
(6 ECTS) - Compulsory
- › Enterprise Modelling (EMO)
(6 ECTS) - Compulsory
- › Production Management (PMT)
(6 ECTS) - Compulsory
- › Performance and Continuous Improvement (PCI)
(6 ECTS) - Compulsory
- › Supply Chain Management & Networked Enterprise (SCM) - (6 ECTS) - Compulsory

Semester 2

JANUARY TO JULY

- › Scientific Conferences and/or Projects (COS/PRO)
(6 ECTS) - Compulsory
- › Internship: Professional/Research (STA)
(24 ECTS) - Compulsory

Strengths



This international Master aims at training high level executives in the Enterprise System.



Students are capable of modelling, analyzing, designing and implementing organizational, technical and software application solutions to improve the performance of manufacturing and service enterprises.



Students may work and develop their careers in an international, professional environment, in particular within the context of industrial collaborations across the continents.



International network: the program welcomes international guest researchers from: Germany, Italy, Japan and the USA.

→ And after?

Employment opportunities mainly concern companies (large companies as well as small/medium companies) that have developed international industrial cooperation.

Job positions are found within the sector of the manufacturing industry as well as the service sector.

Some examples of these positions include: Head of Industrial Management (production, quality, maintenance), Manager of Design, Development and Implementation of Software Applications, Consultant, Project Leader, etc.

Contact

Mamadou Kaba TRAORE (professor, program supervisor)
mamadou-kaba.traore@u-bordeaux.fr

Myriam BOUTGES (secretary)
myriam.boutges@u-bordeaux.fr

How to apply?

The candidate must first send a short CV to the coordinator.

The pre-admission form may be downloaded from the University of Bordeaux website as of February / March:

- › <http://www.u-bordeaux.fr/Admission/Etudiants-et-rangers/Licence-et-Master>

Please note: this Master program welcomes a maximum of 20 students.

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TOMORROW'S SUCCESS
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MASTER Transfers-Fluids- Materials in Aeronautical and Space Applications (TFM-ASA)

Program factsheet

ACADEMIC COOPERATION

Consortium of three universities:

- › Germany: Brandenburg University of Technology Cottbus-Senftenberg (BTU)
- › Belgium: Université catholique de Louvain (UCL)
- › France: University of Bordeaux (UBx)

LEVEL

Students who successfully complete this international Master program in Engineering Sciences, including the compulsory mobility period, receive a joint French/German and Belgian diploma.

PROGRAM DURATION

2 years (120 ECTS).

Program outline

The TFM-ASA program combines studies and research based on aerodynamics, thermodynamics, compressible flows, turbulence, propulsion, combustion, turbomachinery, material science, to name a few. These themes are all directly connected with technical and fundamental studies as well as with aircraft, spacecraft, drone issues, etc.

The program is jointly managed by three academic European partners (France, Germany and Belgium) together with the support and expertise of:

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree in the fields of Engineering, Sciences and/or Technology.
- › Provide strong academic records within the domain of sciences, particularly in solid and fluid mechanics, thermal sciences, thermodynamics and material sciences.

LANGUAGE REQUIREMENTS

All courses are taught in English.

- › Students from English speaking countries must provide an official letter from the university confirming that English is the language of instruction.

- › For other students, the TOEFL* or IELTS** test must be passed before applying for the Master. For TOEFL, a minimum of 550, 213 or 79 points respectively for paper-based, computer-based and Internet-based TOEFL/TOEIC test is required. Marks of at least 6.0 (out of a total of 9) are required for IELTS test.

PARTICIPATION FEES

Students pay common participation fees which cover the national enrolment fees and services of each partner university.

For more information, please consult the website: www.tfmasa.eu

Bordeaux / France:

- › Industrial partners such as IRT St Exupery (Technological Research Institute), BAAS Society (Bordeaux Aquitaine Aéronautique et Spatial) and Aerospace Valley.
- › Leading research laboratories, strongly involved in the aeronautic field such as I2M, LCTS, IMB (UBx).

Louvain-la-Neuve / Belgium:

- › Applied Research Center CENEARO.
- › Research Laboratories: IMMC (UCL).

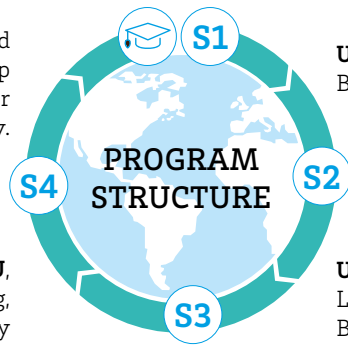
Cottbus-Senftenberg / Germany:

- › Close collaborations with space agencies (ESA, DLR), ROLLS ROYCE, MTU Aero Engines.
- › Research Laboratory: CFTM² at BTU

These industrial partners provide specialized classes and internships to the program, thus providing the students with an overview about the actual issues faced by companies today.

The result is a top-quality, highly-renowned international Master degree that meets the 120 ECTS syllabus requirements and corresponds with current job market criteria.

Master thesis linked to the internship within a laboratory or a company.



UBx,
Bordeaux, France

BTU,
Cottbus-Senftenberg,
Germany

UCL,
Louvain-la-Neuve,
Belgium

Year 1:

Semester 1

Material Science and Structures (30 ECTS)

- › Simulation and design of structures (9 ECTS)
- › Continuum mechanics and finite element method applied to solid mechanics (6 ECTS)
- › Fatigue and fracture (3 ECTS)
- › Materials and aeronautical structures (6 ECTS)
- › Non-destructive evaluation for aerospace applications (3 ECTS)
- › Assembly-bonding (3 ECTS)

Semester 2

Aeronautical Engineering (30 ECTS)

- 6 mandatory courses out of 7
- › Internal combustion engines (5 ECTS)
- › Aerodynamics of external flows (5 ECTS)
- › Introduction to turbomachinery (5 ECTS)
- › Advanced numerical methods (5 ECTS)
- › Quality management and control (5 ECTS)
- › Gas dynamics and reacting flows (5 ECTS)
- › Thermodynamics of irreversible phenomena (5 ECTS)

Year 2:

Semester 3

Compulsory Elective Modules I (18 ECTS)

3 courses to be chosen out of 5

- › Computational fluid dynamics (6 ECTS)
- › Engineering acoustics - sound fields (6 ECTS)
- › Turbulence modeling (6 ECTS)
- › Thermodynamics, heat and mass transfer (6 ECTS)
- › Flow measurements (6 ECTS)

Compulsory Elective Modules II (12 ECTS)

Ia: Mechanical Engineering, Aerodynamics, Fluid Mechanics, Aerospace Engineering, Materials Science
1 course to be chosen from a list

Ib: Physics, Mathematics, Computer Science

1 course to be chosen from a list

Semester 4

- › Master thesis (30 ECTS)
- › Internship in a research institute, an other scientific institution or a company, located preferably close to one of the three partners' locations but also anywhere in the world, upon prior acceptance of the Consortium.

Strengths



International program taught by experts (academics and industrial partners) from three different universities in Europe.



Joint French/German and Belgian Master degree.



International mobility period in the partner countries (2 semesters).



Close collaboration with industrial partners and research institutes with a guarantee of intensive training periods.

→ And after?

After graduation, students may access career opportunities such as:

- › Engineers in companies / engineering departments of aeronautical and space sectors.
- › Continuing their studies as PhD students and, after completion of their PhD, becoming postdoctoral researchers or assistant professors in universities or engineering schools.

How to apply?

Applications may be completed online: www.tfmasa.eu

Deadline:

- › Mid-March 2021

Contact

EXECUTIVE COORDINATORS

- › **Bordeaux:** Sakir Amiroudine / +33 (0) 5 56 84 79 29
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- › **Cottbus:** Christoph Egbers, Michael Bestehorn
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- › **Louvain-la-Neuve:** Vincent Legat / vincent.legat@uclouvain.be

ADMINISTRATIVE COORDINATORS

- › **Bordeaux:** Anna Gerykova / anna.gerykova@u-bordeaux.fr
- › **Cottbus:** René Grube / grube@b-tu.de
- › **Louvain-la-Neuve:** Emmanuelle Brun / emmanuelle.brun@uclouvain.be

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**TOMORROW'S SUCCESS
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MASTER Algebra, Geometry and Number Theory (ALGANT)

Program factsheet

ACADEMIC COOPERATION

Part of the **ALGANT network**
(consortium of 9 universities):

- › **Canada:** Concordia University (Montreal)
- › **France:** Université Paris-Sud (Orsay), University of Bordeaux
- › **Germany:** Duisburg-Essen University, Regensburg University
- › **Italy:** Milano University, Padova University
- › **Netherlands:** Leiden University
- › **South Africa:** Stellenbosch University

Students follow this two-year Master course in two of the partner countries and, upon completion of the course, are awarded a double degree from the two universities.

LEVEL

Double/multiple Master degree of Science in Mathematics.

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree of Science in Mathematics or an equivalent degree.

LANGUAGE REQUIREMENTS

- › A good level of English is required.

PROGRAM DURATION

2 years (120 ECTS).

TUITION FEES

4,000€/year. A fee waiver may be granted.

Program outline

The ALGANT Master program provides a study and research track in pure mathematics, with a strong focus on algebra, geometry and number theory.

This track may be completed throughout Europe and the world, thanks to a partnership between leading research universities.

The ALGANT course introduces students to the latest developments within these subjects, and provides the best possible preparation for their forthcoming doctoral studies.

Program structure

The ALGANT program consists mainly of advanced courses within the field of mathematics and of a research project or internship leading to a Master thesis.

Courses are offered in: algebraic geometry, algebraic and geometric topology, algebraic and analytic number theory, coding theory, combinatorics, complex function theory, cryptology, elliptic curves, manifolds. Students are encouraged to participate actively in seminars.

The university partners offer compatible basic preparation in the first year (level 1), which then leads to a complementary offer for more specialized courses in the second year (level 2).

Each partner university offers a range of courses for the ALGANT program. For detailed information on the structure of the program in the different universities, please consult the partner university websites. You may also consult the ALGANT website (currently being updated).

In Bordeaux, the ALGANT program is structured as follows.

Year 1

Note: courses are taught in French.

SEMESTER 1

- › Théorie des modules (6 ECTS)
- › Théorie des groupes (6 ECTS)
- › Analyse complexe (6 ECTS)
- › Analyse : dualité et convergence (6 ECTS)
- › Théorie des ensembles, espaces quadratiques (6 ECTS)

SEMESTER 2

- › Géométrie (9 ECTS)
- › Théorie des nombres (9 ECTS)
- › Analyse fonctionnelle, analyse spectrale (9 ECTS)
- › Probabilités et statistiques (6 ECTS)
- › Outils hilbertiens (6 ECTS)
- › Algèbre et calcul formel (6 ECTS)

Year 2

Note: courses are taught in English and the content is redefined each year. For details, please consult: www.u-bordeaux.fr and www.u-bordeaux.com

SEMESTER 1

- › Number theory (9 ECTS)
- › Algorithmic number theory (6 ECTS)
- › Geometry (9 ECTS)
- › Elliptic curves (6 ECTS)
- › Algebraic geometry (9 ECTS)
- › Advanced course 1 (6 ECTS)

SEMESTER 2

- › Advanced course 2 (6 ECTS)
- › Advanced course 3 (6 ECTS)

Strengths



› Courses given by academic experts within the field of mathematics.



› Top-quality scientific environment and facilities provided by leading global research institutes, e.g. Institut de Mathématiques de Bordeaux.



› Individually tailored study tracks.

Supported by the IdEx - International Master program of the Bordeaux Excellence Initiative.

→ And after?

Students who successfully complete the ALGANT program will be well equipped to pursue a career in research by preparing a PhD.

They may also directly apply for positions as highly trained mathematicians, especially in the areas of cryptography, information security and numerical communications.

How to apply?

Applications may be completed on-line:

› <http://algant.eu/>

Contact

GENERAL COORDINATOR:

Peter Stevenhagen, Leiden University

COORDINATOR OF ALGANT-BORDEAUX:

Dajano Tossici

Contact for application and further information:

dajano.tossici@u-bordeaux.fr

www.algant.eu

University of Bordeaux,
France



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MASTER

Agro-Biomedical Science

Program factsheet

ACADEMIC COOPERATION

Consortium of three partner universities:

- › University of Bordeaux (France)
- › National Taiwan University (Taiwan)
- › University of Tsukuba (Japan)

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor's degree with honors, or 4-year / 240 ECTS equivalent in any field,
- › 1 or 2 years of professional experience in the field of international health.

LEVEL

Joint Master degree.

PROGRAM DURATION

2 years (120 ECTS).

LANGUAGE REQUIREMENTS

- › English: certifiable equivalent of TOEFL score of 501/173/61, TOEIC score of 600, or IELTS score of 5.0.

TUITION FEES

- › Master tuition fees applicable for the University of Bordeaux.

Program outline

This program trains students to become international professionals with the skills to carry out research and development in order to meet societal needs. Topics covered include the global-scale problems prevalent today in health maintenance and food security. The program tackles this challenge from a perspective that "food is medicine," or in other words, that both medicine and food originate from the same source and both preserve health. Course content also links issues for sustainable agricultural production in a changing environment, the quality of agricultural production, food safety and human health.

Students benefit from the collaboration between three universities and spend at least one semester in each university. The program starts at the University of Tsukuba for the first semester, the National Taiwan University for the second, followed by the University of Bordeaux for the third. For the final semester, students may choose one of the three universities.

In addition to the coursework delivered by each university, students also partake in field studies, corporate internships, laboratory practice and entrepreneurship training, provided by each establishment.

Classes and all other educational activities are taught in English.

Program structure

Three universities jointly organize the curriculum so that students acquire advanced knowledge and methodologies related to medical and agricultural sciences. They are also equipped with a global outlook that comes from practical training extending across Asia and Europe. The curriculum consists of the following subjects:

- › Foundation subjects,
- › Specialized subjects I,
- › Specialized subjects II.

At the University of Bordeaux, the Agro BioMedical Science International Master provides students with cutting-edge, research-based training in plant science,

biotechnology, health, nutrition, and food production. Teaching covers the latest developments in toxicology, cancer, drug discovery, global health, applied translational microbiology, global food security, animal based food stuff, nutrition, agriculture, crop production, green biotechnology, omics and bioinformatics tools.

Upon completion of the program, students are asked to present a comprehensive report on integrated themes including research results or plans for community / social action related to health and food. This report should be based on the overall learning from the two-year educational program. The presentation and oral examination are conducted in English.

Strengths

During their studies, students:

- › Acquire fundamental knowledge and skills regarding food security and health maintenance on a global scale.
- › Acquire knowledge on processes, from identifying problems to implementing solutions, in order to develop effective and innovative measures that overcome current problems regarding food security and health maintenance.
- › Develop skills in order to present and perform as leaders in international activities.
- › Develop their capacity to create and innovate thanks to a mix of interdisciplinary knowledge and advanced practical research.
- › Develop competencies to work for human and social welfare with an international perspective and cross cultural adaptability.

→ And after?

- › Graduates may go on to complete a PhD program, in the fields of plant science, plant biotechnology, global health, applied translational microbiology, global food security, animal based food stuff, nutrition, agriculture, etc.
Graduates may carry out their PhD in one of the three universities involved in the academic cooperation, or in various Higher Education Institutes around the world.
- › Graduates may apply for positions in companies that specialize in private breeding, as well as those specialized in food and nutrition, the extraction and valorization of plants and natural products, global health, applied translational microbiology, the development of sustainable agriculture practices, quality and safety of food production, etc.

Contacts

PROGRAM COORDINATORS:

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Kentaro Mori

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Valerie Schurdi-Levraud

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www.master-bio-agro-bordeaux.com

www.gip.tsukuba.ac.jp/english

How to apply?

- › Due to visa processing times, applications for this Master program must be submitted no later than January 8th, 2021. In order to apply, candidates must send a CV and cover letter to the program coordinators.
- › Applicants are assessed based on their application paperwork, a written assignment, group discussion, and interview in accordance with the admission policy.
- › Each university performs an initial selection, which is then reviewed jointly by all three universities.
- › Five candidates per university are admitted.

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TOMORROW'S SUCCESS
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MASTER Biology Agrosciences (B2AS)

Program factsheet

ACADEMIC COOPERATION

Collaboration with:

- › Ecole Nationale Supérieure des Sciences Agronomiques de Bordeaux (France)
- › University of Tsukuba (Japan)
- › National Taiwan University (Taiwan)
- › Pontifical Catholic University of Chile (Chile)

LEVEL

Master degree (Year 2).

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Master (Year 1) degree (60 ECTS) in any field related to biology with majors in molecular biology, biochemistry and/or genetics.

LANGUAGE REQUIREMENTS

English: certifiable equivalent of TOEFL score of 550/213/79-80 or IELTS score of 6.0.

PROGRAM DURATION

1 year (60 ECTS).

TUITION FEES

Master tuition fees applicable for the University of Bordeaux.

Program outline

The Bordeaux Biology AgroSciences Master (B2AS) is part of the University of Bordeaux Master program and is developed with the support of the French National Institute of Agricultural, Food and Environmental Research (INRAE) and the Bordeaux AgroScience Engineer School.

The B2AS program offers an integrated multidisciplinary approach that is adapted to the realities of research (background research) as well as to the socio-economic sector (professional courses).

The program objectives are to train and equip researchers and professionals to face the issues posed by agriculture in the 21st century. This is achieved by integrating plant biotechnology and agrofood technology within course content in order to deal with the challenges of innovation in agriculture.

With such an integrated approach, the Master B2AS represents a meeting point between academia and professionals. During the program, students may specialize either in the field of plant biology, plant health, biotechnology, plant breeding, genetics, plant and human health benefits, food production and innovation.

The wide partner network provides students with a range of complementary expertise. This means that specific competencies are developed for agriculture improvements.

Strengths

During their studies, students will:

- › Acquire scientific knowledge in various fields of plant biology, plant health, plant breeding, green biotechnology, food supplements, food production, etc.
- › Receive a modern research-based training.
- › Develop an understanding of the challenges of modern agricultural practices in a context of environmental constraints and increasing demand.
- › Develop an understanding of the benefits and limits of modern biotechnology.
- › Acquire the skills to develop action planning processes for bioscience.
- › Acquire skills and practice within an English-speaking environment as well as other languages practised within the consortium.
- › Develop the necessary skills to collaborate with international teams and networks.
- › Acquire competencies for knowledge transfer to students and collaborators.
- › Develop competencies to create, finance and manage a new start-up.
- › Acquire an understanding of today's industrial and economic environment within the Biotech sector.

Program structure

Semester 1

Scientific English (3 ECTS)

- › Students will reinforce and develop the reading, writing, listening and speaking skills relevant to a biological science research context.
- › Students will acquire knowledge of the linguistic and discursive features of both written and spoken scientific English.
- › Structure and rhetoric of the research article, writing up an abstract. Oral scientific presentation – students prepare a mini-symposium on the topic related to their future work placement (and thus complete relevant bibliographical and reading research in preparation).
- › Students are evaluated on their communication skills in English and also on their ability to manage complex scientific concepts in English.

Research and development project design (9 ECTS)

- › Students will learn how to carry out bibliographical research or a technological watch, in order to develop scientific or technological projects within the framework of fundamental or applied research.
- › Students will also have the opportunity to meet professional players by attending seminars and/or company visits.

Elective courses

3 mandatory courses out of 7 (18 ECTS)

Plant development and reproduction (6 ECTS)

- › Genetic regulation of root and stem apical meristem functioning, epigenetic regulations of plant development and reproduction, parental imprinting, plant hormones, fruit and seed development, sex determination in plants, cellular mechanisms involved in plant organ growth and development.

Metabolism and cellular compartmentation (6 ECTS)

- › Metabolism and cell compartmentation: morphodynamic organization of the plant secretory pathway, lipid and protein machineries; membrane transporters in plants and the related methods of study; lipid signaling in plant cells; formation and dynamics of membrane domains; regulation of metabolism and gene expression by sugars in plants. Nature and importance of futile cycles in plants.

Biotechnology (6 ECTS)

- › In vitro culture and applications, plant transformation and applications to crop plants, GMO legislation and traceability, metabolic engineering, GMO and production of antibodies and of molecules of high health value, GMO in the food industry, fungi biotechnology.

Plant pathogen interactions (6 ECTS)

- › Plant-Mollicutes interactions, plant-virus interactions: analysis of plant and virus factors necessary for virus cycle, viroids; RNA interference, plant defence mechanisms against pathogens (fungi, bacteria and virus), breeding of plants resistant to pathogens, biodiversity of plant pathogens, epidemiology of plant pathogen interactions and impact on crop production.

Plant breeding (6 ECTS)

- › Principles of selection and genetic gain, response to selection, germplasm resources, collecting, analysing, classifying, international rules on germplasm resources. Population improvement and cultivar development (breeding for lines, hybrids clones, populations) high throughput phenotyping, breeding strategies and methods including molecular breeding (MAS, genomic selection) and biotechnologies, multiple traits selection,

genotype by environment interaction, protecting varieties and intellectual property, plant breeding international network and organization, advanced statistics.

Quantitative and population genetics and evolution (6 ECTS)

- › Population genetics and genetic diversity, haplotype structure, domestication and genetic consequences, linkage disequilibrium, genetic variance, estimating variance components, heritability, genetic correlations, association genetics, genomic selection, induced diversity TILLING, natural diversity ecoTILLING, linking genetics, genomics and bioinformatics : from fine-mapping to gene cloning; genotyping by sequencing.

Omics and bioinformatics (6 ECTS)

- › Data mining using molecular biology databases, bioanalysis design based on alignment sequences or phylogenetic methods.
- › Introduction to Big Data and the production of omics data, algorithmic approaches dedicated to exploiting biological data.
- › Introduction to the various algorithm families used in bioinformatics, bioinformatics programming using Python.
- › Phylogenetic project pipelines.

Semester 2

Laboratory practice (6 months / 30 ECTS)

- › In a public laboratory and/or a private company laboratory.

How to apply?

Exchange students:

Please refer to the following link: <http://www.u-bordeaux.com/Studying/Applying-Registering/Within-an-Exchange-Program>

Other students:

Please send the following documents: CV, cover letter, description of the Master (Year 1) major and minors (or equivalent), English level certificate (TOEFL or IELTS) and two reference letters to Pr. V. Schurdi-Levraud.

Contact

PROGRAM COORDINATOR:

Valérie Schurdi-Levraud: valerie.schurdi-levraud@u-bordeaux.fr

PATHWAY PROGRAM COORDINATORS:

› philippe.gallusci@u-bordeaux.fr

› frederic.delmas@u-bordeaux.fr

› eric.gomes@u-bordeaux.fr

› gerard.barrosso@u-bordeaux.fr

www.master-bio-agro-bordeaux.com

→ And after?

The objectives of the B2AS program are to prepare students for further study via PhD programs and/or careers in agronomy and the food industry throughout the world. This is achieved by providing high-level training in plant sciences but also by preparing students with relevant knowledge and skills in management and business.

Graduates may apply for positions in the following industrial sectors in a R&D laboratory as well as in production activities:

- › Plant research laboratories
- › Plant breeding companies
- › Health plant companies
- › Green and white biotechnology companies
- › Food, diet and nutrition companies
- › Plant medicinal production companies
- › Food supplement or nutraceutical companies
- › Business trade companies

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MASTER Polymer Sciences

Program factsheet

ACADEMIC COOPERATION

Partner university:

- › Spain: University of the Basque Country (UPV/EHU)

LEVEL

Double Master degree in Polymer Science.

LANGUAGE REQUIREMENTS

All courses are taught in English. Proof of proficiency in English (at least a B2 level - CEFR standard) is essential.

PROGRAM DURATION

2 years (120 ECTS).

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree (180 ECTS) in chemistry, chemical engineering, materials science, chemical physics or an equivalent degree. In the case of a Spanish BSc, students must have 180 ECTS approved at the start of the program.

TUITION FEES

Annual fees:

- › Approx. 1,150€ per year for registration fees
- › Scholarships (International Master grants from the University of Bordeaux and AquiMob mobility grants) are available.

Program outline

The double Master in Polymer Science brings together the expertise of the University of the Basque Country and the University of Bordeaux (UBx) in polymer teaching and research.

The program aims to provide a comprehensive and innovative training dedicated to Polymer Science from the design and synthesis of polymers to their engineering, processing and use. With this Master degree, students are qualified to join a unique workforce in the field of polymers in Europe.

Strengths



- › High-level educational and research environment proposed by the partner institutions.



- › Double Master degree for integration throughout Europe and beyond.



- › UBx and UPV/EHU are partners in the ENLIGHT consortium for the promotion of the quality of life, sustainability & global engagement through higher education transformation.



- › Strong partnerships with academia and industry favoring the direct integration of graduates in chemical companies or their pursuit in doctoral programs.

Program structure

Master 1

The first year of the double Master degree in Polymer Science is taught at the Faculty of Chemistry of UPV/EHU in Donostia-San Sebastian. The focus is on the fundamental aspects of polymers (polymer chemistry, polymer physics, thermodynamics, characterization, polymer reaction engineering, and processing). One of the lectures (Physico Chemistry of Polymers in Solution) is taught via video-conferencing from UBx. In the second semester, students carry out a research project within the polymer research groups located in Donostia-San Sebastian.

This initial year ensures that students grasp the basics and fundamentals of Polymer Science in the context of Material Science. It also allows students to develop contacts with research laboratories, in order to analyze polymers and macromolecules for a wide range of applications.

Master 2

The second year takes place at UBx in Bordeaux. Advanced topics (e.g. functional polymers and self-assembly) or more specific topics in polymer physics, processing and engineering (e.g. rheology) are taught as complementary to the education already received during the first two semesters. Two out of four specialization lectures are delivered via video conferencing.

During the fourth semester, students have the opportunity to complete a Master thesis in an academic or industrial research laboratory. Our industrial partners (e.g. Arkema, Akzo-Nobel, L'Oréal, DSM, Wacker, Allnex, Solvay) propose dedicated positions in their research laboratories. These research internships further strengthen the pool of competencies of the students and guarantee their future integration in academia or industry.

→ And after?

- › After graduation, students are fully prepared to pursue doctoral studies or a career as R&D engineers within the polymer industry. They are qualified to join a unique workforce in the field in Europe.

How to apply?

Procedure:

Candidates should complete the online pre-registration form available on the dedicated website and attach the required documents.

- › www.doublemasterinpolymerscience.com

Please note:

- › Maximum number of students: 16
- › Selection procedure: a committee composed of academic members from both UBx and UPV/EHU evaluates the candidates. Personal interviews may be carried out with preselected candidates if necessary.

Contact

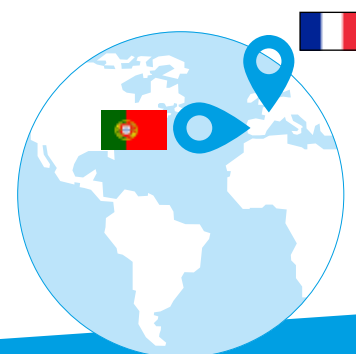
Dr. Guillaume Fleury

guillaume.fleury@u-bordeaux.fr

Prof. Daniel Taton

daniel.taton@u-bordeaux.fr

www.doublemasterinpolymerscience.com



www.u-bordeaux.com

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TOMORROW'S SUCCESS
STARTS **TODAY**

MASTER

Environmental Contamination and Toxicology (ECT+)

Program factsheet

CONSORTIUM

6 universities:

- › Spain: University of the Basque Country (UPV/EHU) (coordinator institution)
- › France: University of Bordeaux (UBx), University of Pau and Pays de l'Adour (UPPA)
- › Norway: Norwegian University of Science and Technology (NTNU)
- › Portugal: University of Porto (UPO)
- › Belgium: University of Liège (ULiège)

LEVEL

Joint or Double Master of Science degree awarded by the consortium universities where the student has studied.

UPV/EHU, ULiège, NTNU and UPorto will deliver a Joint Diploma issued by UPV/EHU. A separate parallel Diploma (Double degree) is issued by either UBx or UPPA for students following Semester 1 in those institutions.

PROGRAM DURATION

2 years (120 ECTS).

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree or equivalent from a European or third country university in the field of engineering, geosciences, oceanography, biosciences, veterinary, health sciences, chemistry, or environmental sciences.

LANGUAGE REQUIREMENTS

All courses are taught in English. Proof of proficiency in English is essential.

Applicants whose native language is not English are required to pass a recognized international English test such as TOEFL (score 220 CBT, 550 PBT, 80 IBT), Cambridge Advanced English Test (score B or higher), IELTS (score 6.5 or higher), TOEIC (800) or other English equivalent test, or an equivalent approved by the Joint Program Board of the Consortium (JPB).

TUITION FEES

Annual fees:

- › 9,000€ partner country¹ students
- › 4,500€ program country² students
- › Scholarships, fee waivers and degree loans available

¹Erasmus Mundus scholarship holders are exempted of fees

²See website for details and information on what defines program and partner country students: www.ectplus.eu/application-enrolment/fees/

Scholarships:

- › Erasmus Mundus scholarships
- › Erasmus+ mobility grants
- › Please note: it is not possible to benefit from more than one source of European funding

Students choosing to study in Bordeaux:

- › Mobility grants through the Aquimob platform *e.g. mobility grants available according to excellence / social criteria funded by the partner institutions and by regional governments*

Program outline

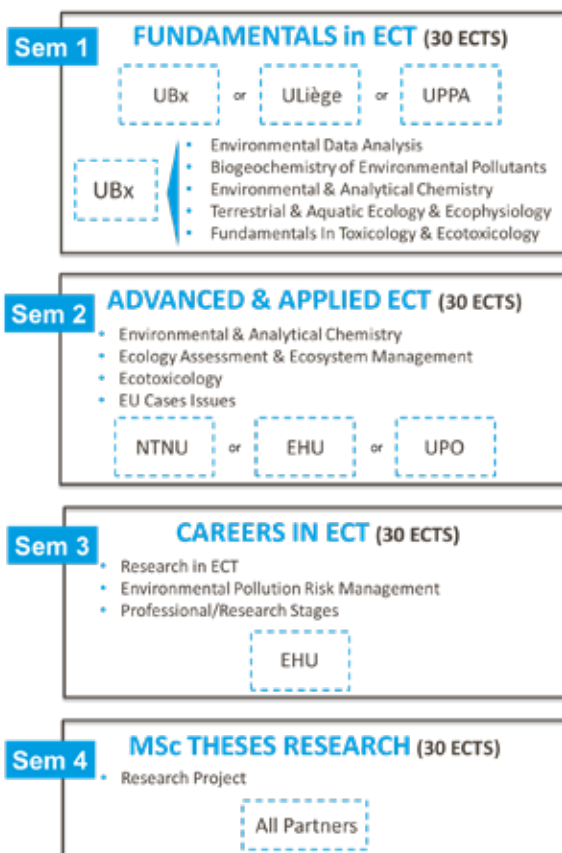
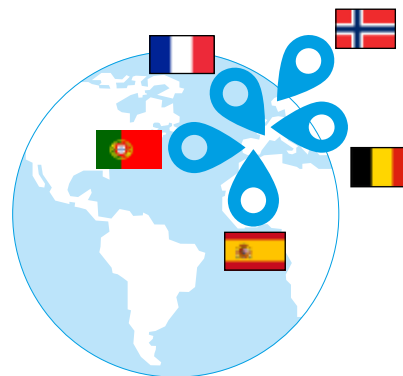
ECT+ is an Erasmus Mundus Joint Master Degree. Multidisciplinary and international, ECT+ provides postgraduate training in the fields of ecotoxicology, toxicology and environmental chemistry, with innovative practical components.

The program focuses on understanding interactions between chemical pollution, the contamination of living organisms and ecosystem disturbances. It also specializes in environmental health risk management, in relation to the use and disposal of chemicals in a scenario of global change.

Students benefit from advanced knowledge in a variety of disciplines such as analytical and environmental chemistry, ecotoxicology, cellular and molecular biology, global chemical issues, ecology, ecosystem health assessment, environmental policies and risk management, in accordance with European treaties, conventions and directives.

Program structure

Student mobility is **compulsory**. Each student must enroll at three of the six partner universities.



Strengths



Students follow a joint program, combining different disciplines that can be studied at each of the 6 partner universities. They may further tailor their study program by choosing between alternative mobility pathways that provide 6 career profiles:

- › Aquatic contamination and toxicology;
- › Soil contamination and toxicology;
- › Arctic contamination and toxicology;
- › Water quality and wastewater contamination;
- › Environmental analytical chemistry;
- › Environmental risk assessment.

→ And after?

- › Graduates will be prepared for leadership roles concerning the environment and within various sectors such as research, environmental protection and management, chemical industries, non-governmental organizations and all levels of governing bodies from local to global.
- › Career profiles include managers, planners, policy makers, researchers or advisors who can make a difference in environmental management and the chemical industry.

How to apply?

Online application:

- › www.ectplus.eu

Deadlines:

- › For Erasmus Mundus scholarships: November–March
- › For self-funded students: April–May

Contact

ECT+ program and application procedure:

Master Secretariat at the coordinating University

- › ect@ectplus.eu

Bordeaux track:

Dr. Agnès Feurtet-Mazel

agnes.feurtet-mazel@u-bordeaux.fr

Dr. Nathalie Geneste

nathalie.geneste@u-bordeaux.fr

www.ectplus.eu



www.u-bordeaux.com

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TOMORROW'S SUCCESS
STARTS **TODAY**

EUREkA

Program Outline

The EUREkA *Graduate Program*, which is fully customizable, focuses on general scientific objectives that favor an interdisciplinary and rational research approach.

These scientific objectives are based on the function-through-structure materials design, which includes: (i) the control of complexity, (ii) the rational design and (iii) the instrumental control over (nano) structures of tailored-made materials.

This approach is implemented via three specific educational and research axes which are:

- › Advanced Functional Polymer Materials
- › Advanced Functional Inorganic Materials
- › Advanced Functional Hybrid & Colloidal Materials

Admission Requirements

Candidates must hold a Bachelor degree with honors or 4-year/240 ECTS equivalent in chemistry and/or physics with a focus on materials science.

Academic Cooperation

Collaboration with over ten international universities :

- › Brazil: Universidade Federal do ABC

- › Lebanon: Lebanese University
- › Japan: University of Kyoto, University of Tsukuba
- › Spain: University of the Basque Country
- › Switzerland: École polytechnique fédérale de Lausanne
- › USA: Duke University, University of California - Los Angeles, University of Cincinnati, University of Massachusetts, University of Nebraska
- › Etc.

Program duration

2 years (132 ECTS).

Language Requirements

Program taught entirely in English, a B2 level according to the CEFR is required.

Fees and scholarships

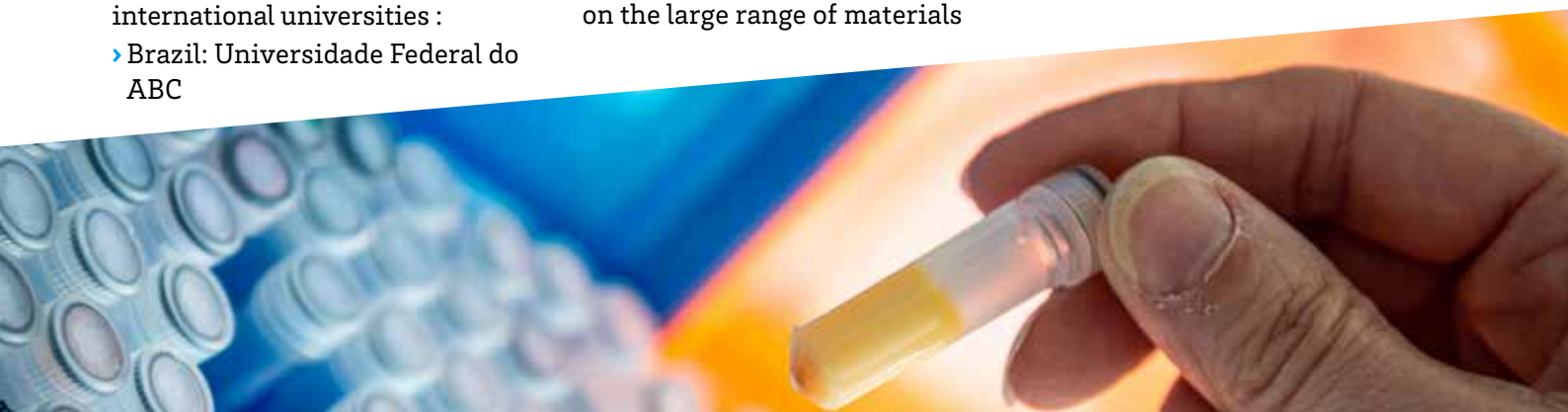
- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).
- › Scholarships may be granted to selected applicants on demand.

Strengths

- › Students develop skills based on the large range of materials

topics studied in the University of Bordeaux campus laboratory: inorganic materials, colloids and polymers.

- › Students work within campus laboratories for two internships during the 2 years (4 and 6 months full time). In addition to the campus laboratories, other academic (collaborations with more than 10 international universities) and industrial (more than 15 partners) laboratories are proposed.
- › The customizable program favors optimum personal development for each student.
- › A mentoring procedure provides strong academic and professional guidance over the 2 years.
- › Students participate in a summer school where they may meet professors and students from abroad.
- › Each semester, some courses (15 to 30%) are taught by international professors.
- › The University of Bordeaux has been identified as a Campus of Excellence within the field of Materials.



Year 1

Semester 1

- › Chemical bonding (6 ECTS)
- › Elaboration of materials from inorganic to polymers (6 ECTS)
- › Chemistry of materials taught by international visiting professors (6 ECTS)
- › Project with an entrepreneurship angle in a UBx laboratory (6 ECTS)
- › Two optional courses must also be chosen. (6 ECTS each)

Semester 2

- › Project: from materials to devices (3 ECTS)
- › Industrial seminars (3 ECTS)
- › Internship of 3 to 4 months (3 ECTS)
- › Batteries and alternative energies taught by international visiting professors (6 ECTS)
- › Additives manufacturing (from polymers to ceramics) taught by international visiting professors (6 ECTS)
- › Two optional courses must also be chosen (6 ECTS each)

Year 2

Semester 1

- › Customized program with three tracks (Inorganic, Colloids or Polymers)
- › Two courses to be chosen from the three below (all taught by visiting professors)
- › Graduate Program's Polymers (Bioinspired Polymer) (6 ECTS)
- › Graduate program's Hybrids & Colloids (6 ECTS)
- › Graduate program's Inorganic (6 ECTS)
- › A research project (1st chapter of thesis) must also be completed (3 ECTS)
- › Three to four optional courses must also be chosen (6 ECTS each)

Semester 2

- › Internship for 6 months (30 ECTS)
- › One course may be taken (taken from Semester 2 of year 1 or from the doctoral school offer)

How to apply?

Candidates must send a CV, cover letter and transcript of previous grades.

And after?

The ultimate goal of the EUREkA Graduate Program is to educate top-level, next-

generational academic and industrial leaders who will bring a strong innovational approach to the fields of Functional Polymers, Inorganic and Hybrid & Colloidal materials.

Graduates may pursue an academic career as PhD students or an industrial career as engineers.

Website



Contact

gp-eureka@u-bordeaux.fr



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Graduate Research School / université de BORDEAUX

Light Sciences & Technologies (Light S&T)

Program Outline

The international Master in Light Sciences and Technologies (LIGHT S&T) is a Graduate Program of the University of Bordeaux. Selected as an "Initiative of Excellence", the program provides a multidisciplinary environment for first-class research and education. Scientific scope:

- › Laser & photonics
- › Extreme regimes of light
- › Materials for photonics
- › Quantum sciences & Quantum technologies
- › Condensed matter
- › Nanosciences
- › Optoelectronics
- › Photochemistry
- › Molecular photonics
- › Biophotonics & imaging

Admission Requirements

Candidates must hold a Bachelor degree in Physics, Chemistry, Biology or equivalent.

Academic Cooperation

The Master in Light Sciences and Technologies is managed by the University of Bordeaux and by the Institut d'Optique Graduate School (IOGS) for the double-degree track. Strong partnerships with:

- › Canada: Université Laval & Institut National de la Recherche Scientifique (INRS)
- › Germany: Abbe School of Photonics (FSU Jena)
- › Double degree possible with the University of Tampere (Finland)

Program duration

2 years (120 ECTS).

Language Requirements

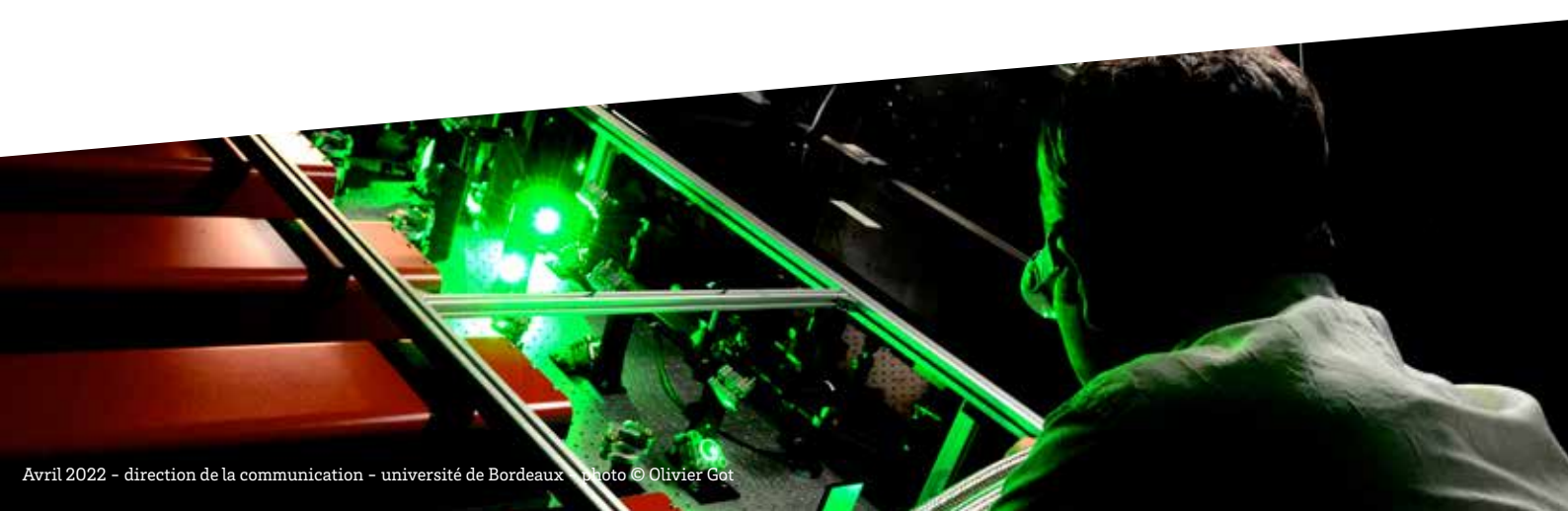
Program taught entirely in English, a B2 level or equivalent is required.

Fees and scholarships

- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 250€).
- › Scholarships may be granted to selected applicants on demand.

Strengths

- › An integrated, interdisciplinary program, provided by both academic and industrial experts.
- › A "hands-on", cross-cutting and immersive training in research laboratories and cutting-edge facilities.
- › International mobility opportunities and / or training within the industrial sector.
- › Double degree opportunity with the Institut d'Optique Graduate School.
- › Paid internship as of the first year of the Master program. The program benefits from the support of the International Master program of the University of Bordeaux Initiative of Excellence (IdEx) and the French National Research Agency.



Year 1

Semester 1

- › Preparatory courses cover the fundamentals of modern optics, structure of matter, quantum mechanics, statistical physics and cell biology.
- › Core courses provide a comprehensive education in laser systems, light matter interaction, photonics, and materials properties.
- › Practicum courses introduce experimental techniques in laser optics, spectroscopy, quantum physics and chemistry.

Semester 2

- › Core and specialization courses.
- › Internship as practical training to research in academic or industrial laboratories.

How to apply?

Documents necessary for the selection procedure:

- › Official transcripts, copies of all previous diplomas
- › Copy of passport (or ID card if European)
- › Cover letter and CV (in English)
- › Language test results (ECTS, TOIEC, IELTS, etc.) or certificate of studies from an English speaking High School
- › If applying for a scholarship, two letters of recommendation are requested

And after?

After graduation, students are fully prepared to pursue doctoral studies and a career in research. They may also work as scientists or R&D engineers within the industrial field.

Research :

- › Doctoral studies in academic research or R&D engineering

Year 2

Semester 1

- › Specialization courses, laboratory courses delivered on cutting-edge research platforms and facilities, or/and on-demand laboratory courses in hosting research groups.

Semester 2

- › The fourth semester is dedicated to a Master thesis carried out in an advanced academic or industrial research laboratory.

Business sectors :

- › Light sources
- › Quantum technologies
- › Laser processing and 3D manufacturing
- › Sensors and multi-responsive detection systems
- › Smart and reconfigurable integrated photonics systems based on innovative hybrid nanotechnologies
- › Optical components and devices manufacturing
- › Innovative optical materials
- › Pharmaceutical companies (drug screening and testing)
- › Bio-imaging

Other opportunities :

- › Teaching, education and dissemination of scientific knowledge
- › Linking public and private actors in research, development and marketing

Website



Contact

contact.light-st@u-bordeaux.fr



Neuroscience (NeuroBIM)

Program Outline

High standards

- › The Bordeaux International Master of Neuroscience emphasises training in cutting-edge techniques in all major topics of brain research, from molecules to cognition. Its main objective is to foster Neuroscience education and train new brain scientists, by offering a unique interdisciplinary and integrated approach from normal brain function to brain disorders.

Excellent teaching

- › In Bordeaux, about 30 professors and lecturers in Neuroscience are involved in teaching as well as many neuroscientists and colleagues specialized in psychology, cognition, modeling, physiology, genetics, medicine, brain imaging, etc.

Top research / traineeships

- › Neuroscience in Bordeaux has grown over the last 15 years to become one of the largest Neuroscience scientific communities in France and in Europe, with over 600 people working in the various Neuroscience laboratories of the University of Bordeaux. In order to meet the most important challenges facing Neuroscience research, all

these laboratories are grouped within a virtual institute, called the Bordeaux Neurocampus, a multidisciplinary consortium of world-renowned scientists. Bordeaux Neurocampus offers, together with our international academic partners, excellent opportunities for traineeships.

Interaction with the professional sector

- › Students have access to Pharma multinationals for traineeships through internationally oriented consortia such as Pierre Fabre, Sanofi-Aventis, Glaxo-SmithKline etc.

Admission Requirements

Candidates must fulfill the following requirements:

- › Hold a Bachelor's degree (180 ECTS) or equivalent degree in biology, biochemistry, biomedical sciences, medical studies, pharmacy, cognitive sciences or psychology with a strong interest in Neuroscience.

Academic Cooperation

Collaboration with:

- › Neurasmus consortium (Erasmus+Master program of Neuroscience).
- › University of Tsukuba (Japan).
- › Other partner universities from the USA, Canada, Europe.

Program duration

2 years (120 ECTS).

Language Requirements

Proficiency in English is required. Candidates should have adequate knowledge of written and spoken English, equivalent to B2 according to the CEFR.

Fees and scholarships

Master tuition fees applicable for the University of Bordeaux.

- › International mobility for traineeships is supported by Aquimob mobility scholarships and NeuroBIM (Bordeaux International Master of Neuroscience) IdEx grants.
- › Students completing their traineeship in a laboratory of the University of Bordeaux receive a monthly stipend (around 500€) during the traineeship.

Strengths

- › Advanced scientific education and training with innovative and interdisciplinary brain research methodology.
- › Training through original research.
- › Small classes and close contact with faculty staff.
- › Opportunities for international mobility.

Year 1

Semester 1

September-January (30 ECTS)

Compulsory courses:

- › Scientific Communication (3 ECTS)
- › Statistics and Neural Modelling (3 ECTS)
- › Tutored Project (3 ECTS)
- › Functional Neuroanatomy (5 ECTS)
- › Neurophysiology (4 ECTS)
- › Molecular Neurobiology (4 ECTS)
- › Neuropharmacology (4 ECTS)
- › Higher Brain Functions (4 ECTS)

Semester 2

January-June (30 ECTS)

- › Laboratory Internship

Year 2

Semester 1

September - January (30 ECTS)

Compulsory courses:

- › Research Project Literature Survey & Methodology (9 ECTS)
- › Drug Discovery & Pharmaceutical Industries (3 ECTS)

Optional courses:

- › Current Research in Cellular and Molecular Neurobiology (6 ECTS)
- › Cognitive Neuroscience (6 ECTS)
- › Pathophysiology of Neurological & Psychiatric Diseases (6 ECTS)
- › Neural Networks (6 ECTS)
- › Addiction (6 ECTS)
- › Behavioural Studies in Neuroscience (6 ECTS)
- › Pre-clinical and Clinical Neuropharmacology (6 ECTS)
- › Advanced Topics in Cellular Neuroscience Imaging (6 ECTS)

Semester 2

January-June (30 ECTS)

- › Master Thesis Project

How to apply?

Master / Year 1:

- › French & international students, consult the NeuroBIM website

Master / Year 2:

- › French students, through the Apoflux platform (University of Bordeaux)
- › International students, consult the University of Bordeaux exchange program website.

And after?

After graduation, students have access to career opportunities in the industrial sector, in clinical research or may carry out further fundamental research as PhD students.

Website



Contact

admissiontec@u-bordeaux.fr



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Graduate Research School / université de BORDEAUX

Neuroscience (Neurasmus)

Program Outline

European Master in Neuroscience: advanced courses and research training.

The Neurasmus program is a full-time Neuroscience study program offering a unique interdisciplinary and integrated approach of normal brain functions and diseases. It strongly emphasizes training in cutting-edge techniques in all major topics of brain research, from molecules to cognition.

The Neurasmus curricula are completely embedded in international-oriented local Master programs of the partner universities. Each program features among the best and most reputed national programs in Neuroscience.

The Neurasmus program is an Erasmus Mundus Joint Master Degree developed under the Key Action 1 of the Erasmus+ program. Action 1 fosters cooperation between higher education institutions and academic staff in Europe and Third Countries with a view to creating poles of excellence and providing highly trained human resources.

Joint programs of outstanding academic quality are designed and implemented by a consortium of European universities from at least three different countries. Consortia may also include universities from other parts of the world.

Programs include obligatory study and research periods, in at least two universities, and award recognized double or multiple degrees.

Admission Requirements

Candidates must fulfill the following requirements:

- › Hold a Bachelor's degree (180 ECTS) or a qualification in natural sciences.
- › A solid basic knowledge in general cell biology, as well as the basics of chemistry and biochemistry, physics and math is required.
- › Excellent proficiency in English.

Academic Cooperation

Collaboration between six partner universities:

- › Canada: Université Laval
- › France: University of Bordeaux
- › Germany: UMG
Universitätsmedizin in Göttingen, Charité
- › Universitätsmedizin in Berlin
- › Portugal: Universidade de Coimbra
- › Netherlands: Vrije Universiteit Amsterdam

Associated members:

- › SPARK Foundation, University of Copenhagen, University of Ottawa.

Program duration

2 years (120 ECTS).

Language Requirements

- › Candidates who completed their education in Canada, USA, UK, Ireland, New Zealand, South Africa, or Australia, do not need to provide an English certificate.
- › All other applicants (incl. candidates who hold a Bachelor

or Master degree taught in English) need to provide evidence of their English language skills with any one of the following test scores:

- › IELTS: 6.5 (no score below 6), Paper based TOEFL: 580, Computer-based TOEFL: 237, Internet-based TOEFL: 92, Certificate of Advanced English: B/C, Certificate of Proficiency in English: B/C.

Fees and scholarships

- › Available scholarships: Erasmus Mundus student scholarships
- › Self-funded program country students*: 2,250€ per semester (9,000€ for the 2 year-program)
- › Self-funded partner country students: 4,500€ per semester (18,000€ for the 2 year-program)

Strengths

- › Scientific education and training with innovative and interdisciplinary brain research methodology.
- › Research projects (laboratory rotations) involving experimental work and data analysis.
- › Common workshops bringing together students and university representatives.
- › Small classes and close contact with faculty staff.
- › International learning environment with high-level mobility opportunities.
- › Attractive scholarships.

Program structure

At the application stage, students choose the main track they wish to follow. This defines their first year mobility.

- › Track 1: Amsterdam (120 ECTS)
- › Track 2: Bordeaux (120 ECTS)
- › Track 3: Göttingen (120 ECTS)
- › Track 4: Berlin (120 ECTS)
- › Track 5: Coimbra (120 ECTS)
- › Track 6: Amsterdam / Bordeaux (120 ECTS)

Depending on the track chosen, students spend their first and second semesters in Amsterdam / Göttingen / Berlin / Coimbra / Bordeaux / Laval.

The Board of Education agrees on the first, second or third wish according to the selection ranking and intake capacity of partner institutions.

At the end of the first semester, students choose a subspecialty which defines the partner university(ies) for the 2nd year. It is part of the student's Personal Training Plan (PTP). Students have up to the end of first year / start of third semester to choose the subject of their Master Thesis. Students then spend their third and fourth semesters in one or two locations: Amsterdam / Göttingen / Berlin / Coimbra / Bordeaux / Laval.

Year 1

Semester 1 & 2

› Core curriculum

Students are introduced to the different domains of Neuroscience and provided with the basic knowledge they need through a commonly agreed core curriculum (core courses).

In addition, every student conducts research projects (laboratory rotations) in different participating departments.

Research projects involve experimental work, data analysis and a written laboratory report.

Year 2

Semester 1

› Advanced courses

The choice of the advanced courses (30 ECTS), in association with the initial track, will define the subspecialty training obtained by the student.

Semester 2

› Master Thesis

Students complete a six month research project or industrial placement leading to a Master Thesis (30 ECTS).

How to apply?

Students may apply online.

And after?

- › On completion of the Master program, students are qualified candidates for different exchange and training PhD programs currently available among the consortium members.

- › Graduates will have also the possibility to pursue their studies at PhD level at any of the consortium graduate schools (www.enc-network.eu) or at any other research institution worldwide.
- › Graduates interested in starting a career within the business sector, benefit from the industrial network of the consortium.

Website



Contact

neurasmus@u-bordeaux.fr

Euro-Mediterranean Master of Neuroscience (EMN-Online)

Program Outline

- › Neurobiology and biotechnology, providing high-level, interdisciplinary neuroscience training with an emphasis on innovative e-learning methods.
- › High-level, interdisciplinary training in neuroscience is conducted with students studying theoretical concepts together with a broad range of experimental methods used in biotechnology and biomedicine.
- › Individual projects in neuroscience and biotechnology are carried out, requiring the elaboration and communication of scientific data and concepts. Students also master the competencies necessary to implement modern techniques and manage complex, experimental set-ups.
- › Teaching follows standards of excellence and is provided by international experts of the consortium. This consortium offers a large variety of top-level research labs for student training. In addition, consortium partners extend this offer with opportunities in their laboratories. Throughout their study and training, students develop connections and network across Europe and the Mediterranean region.

- › EMN-Online follows the European system of postgraduate studies with equivalent credit value. The courses and evaluation procedure are identical within all partner universities.

Admission Requirements

Candidates must fulfill the following requirements:

- › Hold a Bachelor in Life Science or three years study/ 180 ECTS equivalent in the field of Biomedical Science.

Academic Cooperation

Universities in Euro-Mediterranean countries:

- › France, Italy, Poland, Spain, Sweden.
- › Egypt, Lebanon, Morocco, Tunisia.

Program duration

2 years (120 ECTS).

Language Requirements

Courses are taught in English and/or French. Candidates should have a B1 level of English or equivalent.

Fees and scholarships

Annual tuition fees for EU / non EU students:

- › According to the student's home university.

Strengths

- › International curriculum with identical core courses.
- › Open to students following initial training and lifelong learning methods.
- › Innovative teaching based on group work and flipped classroom with modern e-learning tools favoring student autonomy.
- › Development of a collaborative MOOC on the societal implications of neuroscience.
- › Specialization tracks based on the expertise of each partner in fundamental or biomedical sciences.
- › A unique, wide-range of complementary competences and methods that cover all fields of modern neuroscience, from molecular aspects to in vivo analysis.
- › A dense network of expert research labs and easy access to high-level, specialized core facilities.
- › Student R&D projects in academic and industrial fields.
- › Bilingual teaching and close collaboration between universities to promote international, mobility opportunities.

Year 1

Semester 1 & 2

Acquisition of general concepts:

- › Cellular Neurobiology
- › Functional Neuroanatomy
- › Neural Basis of Cognition
- › Mechanisms of Neurological Diseases
- › Neuropharmacology
- › Developmental Neurobiology
- › Bioinformatics and Biotechnology
- › Language and Communication

Year 2

Semester 1

Societal implications of neuroscience (economy & bioethics).

Three specialized tracks in basic or applied neuroscience:

- › Molecular and Cellular Neuroscience
- › Integrative and System Biology
- › Medical Neuroscience and Neuroimaging

Semester 2

Practical training in an academic lab or a private company. Students may benefit from the consortium network in Europe and the Mediterranean region. Outside the EMNOnline consortium members, hosting labs are located in many countries worldwide including Germany, USA, Canada, Brazil, Australia, etc.

How to apply?

The application procedure starts as of March and is processed via the Apoflux system.

And after?

Graduates will be able to continue their studies with research:

- › Application to the PhD programs currently available in the consortium member's institutions, or in any research institution worldwide. They may also apply for positions as the following:
- › Researcher, Service Engineer, Application Scientist, Bio-Medical, Engineer, Sale Engineer, Healthcare Executive.

Website



Contact

gp-eureka@u-bordeaux.fr



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Cancer Biology

Program Outline

The Master in Cancer Biology is one of the four degree-granting tracks of the Biology and Health Master. The training program is primarily research-oriented with an emphasis on interdisciplinary approaches to the study of cancer. The program includes two research internships in laboratories: a two-month long internship in the first year and a five-month long internship in the second year. Students learn about the fundamental bases and emergent areas in the field of cancer, from basic cell and molecular biology of cancer to translational and clinical research. They benefit from open access to state-of-the-art technological tools and direct interaction with expert scientists from the field of Cancer Biology. The program covers the basic molecular and cellular mechanisms driving oncogenesis, the complex interacting cellular and molecular networks with the tumor microenvironment dictating cancer development and metastatic dissemination, the clinical aspects of cancer pathology and therapeutic possibilities. The development of critical analysis and creative skills that must be applied in the

conception of research proposals, accessing and processing experimental data, and literature searches are also important components of the program.

Admission Requirements

Bachelor degree or 180 ECTS equivalent in Biology or relevant Life Sciences field.

Academic Cooperation

- › US: University of Arizona, Stanford University, City of Hope Medical Center
 - › Canada: McGill University
 - › Brazil: University of Porto Alegre
 - › Portugal: University of Lisbon
 - › Spain: University of Saragossa, University of Seville
- ... among other international partners of the University of Bordeaux in oncology labs.

Program duration

2 years (120 ECTS).

Language Requirements

- › Program taught entirely in English, a C1 level according to the CEFR is required.

Fees and scholarships

- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).
- › Scholarships may be granted to selected applicants on demand.

Strengths

- › Strong connections to a network of research laboratories (French National Center for Scientific research - CNRS, French National Institute of Health and Medical Research - INSERM, the University of Bordeaux and international laboratories) dealing with a broad range of topics in oncology.
- › State-of-the-art technologies for cancer modeling, diagnosis, and treatments.
- › A strong interdisciplinary research dynamic and learning environment, providing students with the possibility to interact with not only biologists, clinicians and other health professionals, but also physicists, mathematicians, chemists, computer scientists and philosophers of science working in the field of cancer.



Year 1

Semester 1

- › Cancer cell biology (9 ECTS)
- › Bioinformatics and omics (3 ECTS)
- › Imaging and molecular histology (3 ECTS)
- › Experimental design in biomedical sciences (3 ECTS)
- › Molecular and cell biology techniques (9 ECTS)
- › English (3 ECTS)

Semester 2

- › Cancer immunobiology and immunotherapies (6 ECTS)
- › High-throughput sequencing and bioinformatics (3 ECTS)
- › Research internship (12 ECTS)
- › Molecular basis of pathologies (9 ECTS)
- › Optional: animal experimentation training and certification (6 ECTS)

Year 2

Semester 1

- › Microenvironment and tumor heterogeneity (6 ECTS)
- › Modeling and therapeutic innovation in cancer (6 ECTS)
- › Tutored interdisciplinary project (3 ECTS)
- › Communication and project conception (9 ECTS)

Two courses to be chosen from:

- › Concepts and causality in cancer (3 ECTS)
- › Microbiota and physiopathology (3 ECTS)
- › Pharmaceutical sciences (3 ECTS)
- › Other courses offered in the Biology and Health Master programs

Semester 2

- › Research internship (30 ECTS)

How to apply?

Applications may be completed online

And after?

The Master in Cancer Biology prepares students for careers in academic research in biomedical sciences. They may pursue their studies further with a PhD or directly work in research laboratories as scientific staff. It also prepares students to compete for careers

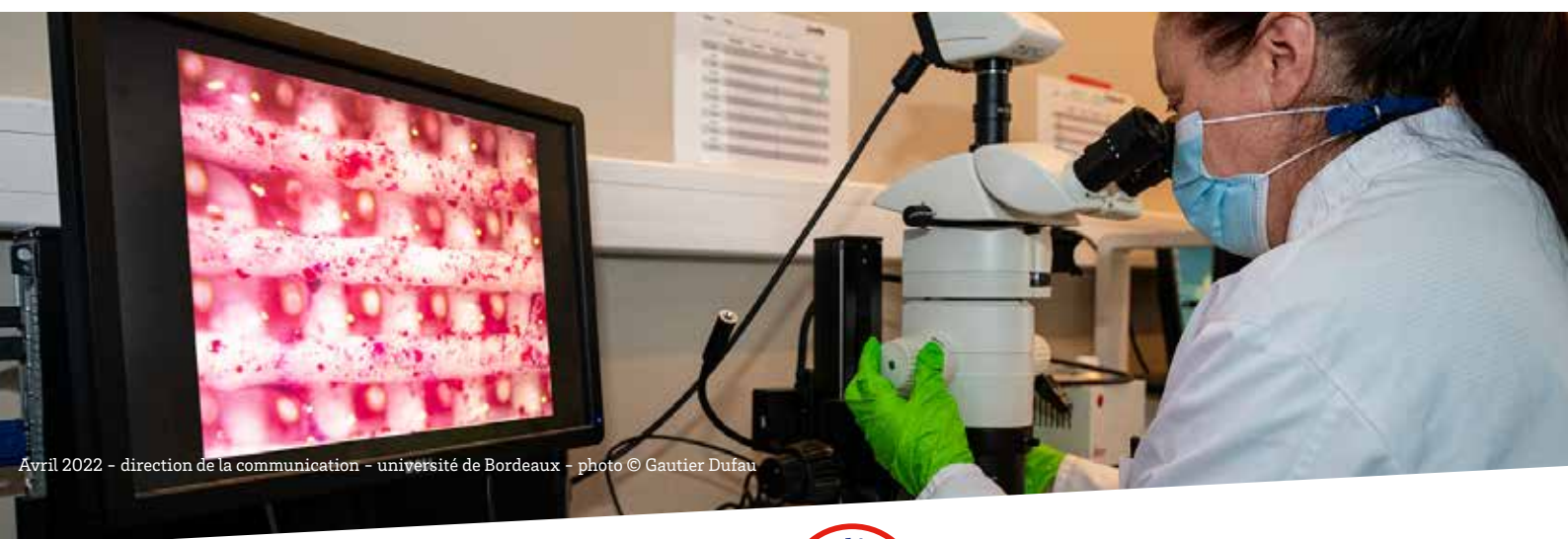
in the industrial sector (biotechnology companies, particularly in product development for the diagnosis and treatment of cancer, in pharmaceutical companies or clinical analysis laboratories). Graduates of the program also have the opportunity of applying for different professional positions in the healthcare system, such as hospitals or clinics.

Website



Contact

cancerbiology@u-bordeaux.fr



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Graduate Research School / université de BORDEAUX

EUREkA

Program Outline

Selected by the Investments for the Future program, EUREkA focuses on knowledge, innovation and cross-disciplinarity, with the support of the National Center for Scientific Research (CNRS). This Graduate Program provides a complete interdisciplinary and international training, from MSc to PhD, in the domain of chemistry and physics-chemistry of materials, starting from the stage of conception, synthesis and elaboration, to chemical, physico-chemical and physical characterizations, and their use for specific functions and applications.

The studied materials are very diverse (e.g., inorganic materials, polymers, colloidal materials, hybrids, composites, etc.) and draw upon the main research-fields studied within the laboratories of the University of Bordeaux.

Admission Requirements

Hold a Master's degree in chemistry, physics-chemistry or materials science.

Prove an excellent academic and scientific level. Demonstrate previous experience in a research laboratory.

Academic Cooperation

- › Switzerland: École polytechnique fédérale de Lausanne
- › US: Duke University, UCLA, University of Cincinnati, University of Massachusetts, University of Nebraska
- › Japan: University of Tsukuba, University of Kyoto
- › Spain: University of the Basque Country
- › Lebanon: Lebanese University
- › Brazil: Federal University of ABC

Doctoral School

Chemical sciences

Program duration

3 years

Language Requirements

Program taught entirely in English, a C1 level according to the CEFR is required.

Fees and scholarships

- › PhD positions are offered on a yearly basis
- › International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.
- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Strengths

- › Doctoral students develop skills based on the wide range of topics relating to the materials studied on the Bordeaux campus: e.g., inorganic materials, colloids, polymers, hybrid and composite materials, etc.
- › Privileged network of 8 research laboratories with complementary areas of specialization.
- › Cutting-edge technologies dedicated to the characterization and development of materials (e.g., clean room, SPS, HR TEM, etc.).



- › Strong dynamic of cross-disciplinary research and learning environment, providing students and PhD candidates with the opportunity to work with not only physicists, engineers, mathematicians, and computer scientists, but also various philosophers of science and other researchers in the humanities.

Program Structure

- › The program takes place within our research community, composed of 8 labs and having their unique areas of specialization. Our training covers a wide range of subjects pertaining to materials and their applications (e.g., energy, recycling, bio materials, etc.).
- › Our teams and partners hold diverse and complementary expertise. Crossdisciplinary technological-approaches are used to address either specific matters or global issues.

Regarding energy materials, for instance, the combination of skills in physical and chemical characterization, elaboration, and electrochemistry enables a better grasp of the issue. Also note that a system approach allows us to cover TRLs from 1 to 5.

And after?

EUREkA trains top-level, next-generation academic and industrial leaders, who will bring a strong innovational approach to the fields of functional polymers, inorganic and hybrid & colloidal materials.

How to apply?

Applications are to be submitted online.

Website



Contact

gp-eureka@u-bordeaux.fr



Light Sciences & Technologies (Light S&T)

Program Outline

The international PhD program in Light Sciences and Technologies is part of the University of Bordeaux Graduate Research School.

Selected within the French "Investments for the Future" program as an "Initiative of Excellence", the three year program focuses on knowledge and innovation in light sciences and technologies, providing a multidisciplinary environment for first-class PhD research.

Students are offered complementary training with a strong emphasis on research and entrepreneurship skills.

Academic research domains:

- › Laser & photonics
- › Extreme regimes of light
- › Materials for photonics
- › Quantum sciences & Quantum technologies
- › Condensed matter
- › Nanosciences
- › Optoelectronics
- › Photochemistry
- › Molecular photonics
- › Biophotonics & imaging

Admission Requirements

Candidates must fulfill the following: Hold a Master degree (or equivalent) in Physics, Chemistry or Biology.

Academic Cooperation

The PhD program in Light Sciences and Technologies is managed by the University of Bordeaux.

Strong partnerships for international mobility and / or PhD co-supervision with:

- › Brazil: São Paulo State University (UNESP)
- › Canada: Université Laval & Institut National de la Recherche Scientifique (INRS)
- › Germany: Abbe School of Photonics, (FSU Jena)
- › South Korea: Yonsei University
- › USA: University of Central Florida (UCF)

Doctoral Schools

- › Physics and engineering
- › Chemical sciences
- › Life and Health Sciences

Program duration

3 years

Language Requirements

Program taught entirely in English, a B2 level or equivalent is required.

Fees and scholarships

- › PhD positions are offered on a yearly basis
- › International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.
- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Strengths

- › Top-class research environment with a high-level of technical know-how.
- › Integrated, complementary training program (for both the research and business track), provided by academic and industrial players.
- › Cross-fertilizing environment, thanks to the strong involvement of 15 research laboratories as well as industrial R&D centers and transfer platforms.



- › This environment prepares students for future academic and /or industrial careers in photonics.
- › Opportunities to apply for international mobility scholarships.
- › Dual PhD degree opportunities with our main international partners.
- › Numerous events organized within the PhD cohort.

Program Structure

› The selected PhD students entering the LIGHT S&T Graduate Program can benefit from specialized teaching programs and mobility grants during their PhDs, and will attend events organized for doctoral students within the doctoral program. The PhD student benefits from an academic or industrial mentor. This mentor provides personalized a follow-up on the evolution of his/her thesis work and accompanies him/her in his/her professional project. Joint supervision thesis and international mobility are encouraged and supported through mobility grants. The recruited PhD students will benefit from a support to promote outstanding research results obtained during the thesis (publication fees in high impact journals or presentation in renewed international conferences).

And after?

After graduation, PhD students are fully prepared for a career in research. They may also work as entrepreneurs, R&D engineers or in top-level management positions within the industrial sector.

Research:

- › Academic research or R&D engineering
- Business sectors:
- › Light sources
 - › Quantum technologies
 - › Laser processing and 3D manufacturing
 - › Sensors and multi-responsive detection systems
 - › Smart and reconfigurable integrated photonics systems based on innovative hybrid nanotechnologies
 - › Optical components and devices manufacturing
 - › Innovative optical materials
 - › Pharmaceutical companies (drug screening and testing)
 - › Bio-imaging

Other opportunities:

- › Teaching, education and dissemination of scientific knowledge
- › Linking public and private actors in research, development and marketing

How to apply?

Documents necessary for the selection procedure:

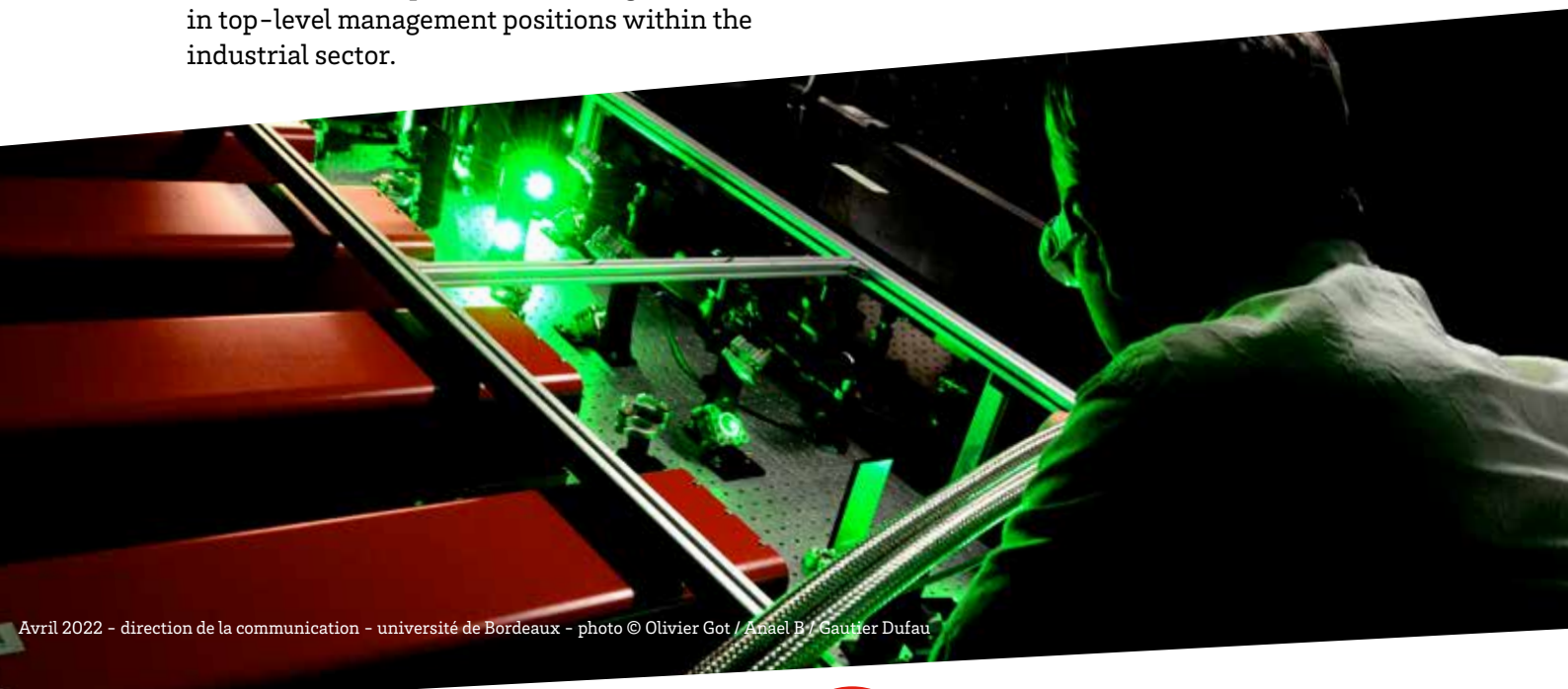
- › Cover letter and CV (in English)
- › Official transcripts of records, showing rankings
- › Electronic Master thesis copy
- › Thesis research project

contact.light-st@u-bordeaux.fr

Website



Contact



Bordeaux Neurocampus

Program Outline

The PhD Program in Neuroscience is part of the Bordeaux Neurocampus Graduate Program of the University of Bordeaux. PhD students of the Program are enrolled in the research laboratories of Bordeaux Neurocampus, a highly international and vibrant research community. Bordeaux Neurocampus is composed of 6 institutes affiliated with the CNRS, the Inserm or the INRAe, representing 54 research teams all located within walking distance.

The PhD projects cover a wide range of topics concerning complex brain functions and diseases. The diverse as well as complementary expertise includes: imaging and biology of neural cells and synapses, animal and human behavior, physiology of neural networks, mechanisms of neurodegenerative and mental disorders. Multidisciplinary technological approaches and multiscale analyses are employed, at the molecular, cellular, systemic, behavioral, and clinical levels. The International PhD training offer includes:

- › Research projects in Bordeaux Neurocampus laboratories.
- › 100 hours of additional courses, with a balance between disciplinary (Neuroscience) and complementary training.
- › Monthly PhD seminars organized by PhD students.
- › Hands-on training workshops as a trainee or instructor at the Bordeaux School of Neuroscience (Cajal Advanced Neuroscience Training program, Introduction to Experimental Neuroscience workshop,..).
- › Preparation for different career opportunities (research, teaching, project management, scientific mediation, business and entrepreneurship etc.) in the academic as well as the private sector.

Admission Requirements

- › Hold a Master degree in a relevant discipline
- › Prove an excellent academic and scientific level
- › Demonstrate previous experience in a research laboratory Doctoral School Health and life science

Doctoral School

Health and life science

Language Requirements

Program taught entirely in English, a B2 level according to the CEFR is required.

Fees and scholarships

- › PhD positions are offered on a yearly basis
- › International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.
- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Program duration

3 years

Strengths

An integrated, innovative and cross-disciplinary international PhD Program in neuroscience:

- › Expertise of the Bordeaux Neurocampus research laboratories covering a wide variety of skills and technologies from basic to applied and translational research.



- › Cutting-edge facilities that feature technological innovations and provide graduates with hands-on training.
- › International mobility and/or training opportunities.
- › Access to international scientific networks via structured academic and industrial partnerships.
- › Career guidance services to support the professional insertion of graduates.

Program Structure

Selected as a French Initiative of Excellence, the PhD Program in Neuroscience focuses on knowledge, innovation and cross-disciplinarity, with the support of public research organizations (French National Center for Scientific Research - CNRS, French National Institute of Health and Medical Research - Inserm, and the French National Institute of Agricultural, Food and Environmental Research - INRAE). PhD students benefit from a variety of educational programs, ambitious training initiatives, international conferences and top quality research facilities. The International PhD training offer includes:

- › Research projects in Bordeaux Neurocampus laboratories.
- › 100 hours of additional courses, with a balance between disciplinary (Neuroscience) and complementary training, including a course in business and entrepreneurship.
- › Monthly PhD seminar series currently organized by PhD students.

- › Hands-on training workshops as a trainee or instructor at the Bordeaux School of Neuroscience.

And after?

The PhD Program in Neuroscience prepares students for different career opportunities (research, teaching, project management, scientific mediation, etc.) in the academic as well as the private sector.

How to apply?

Online application: personal details and documents to be provided for pre-selection :

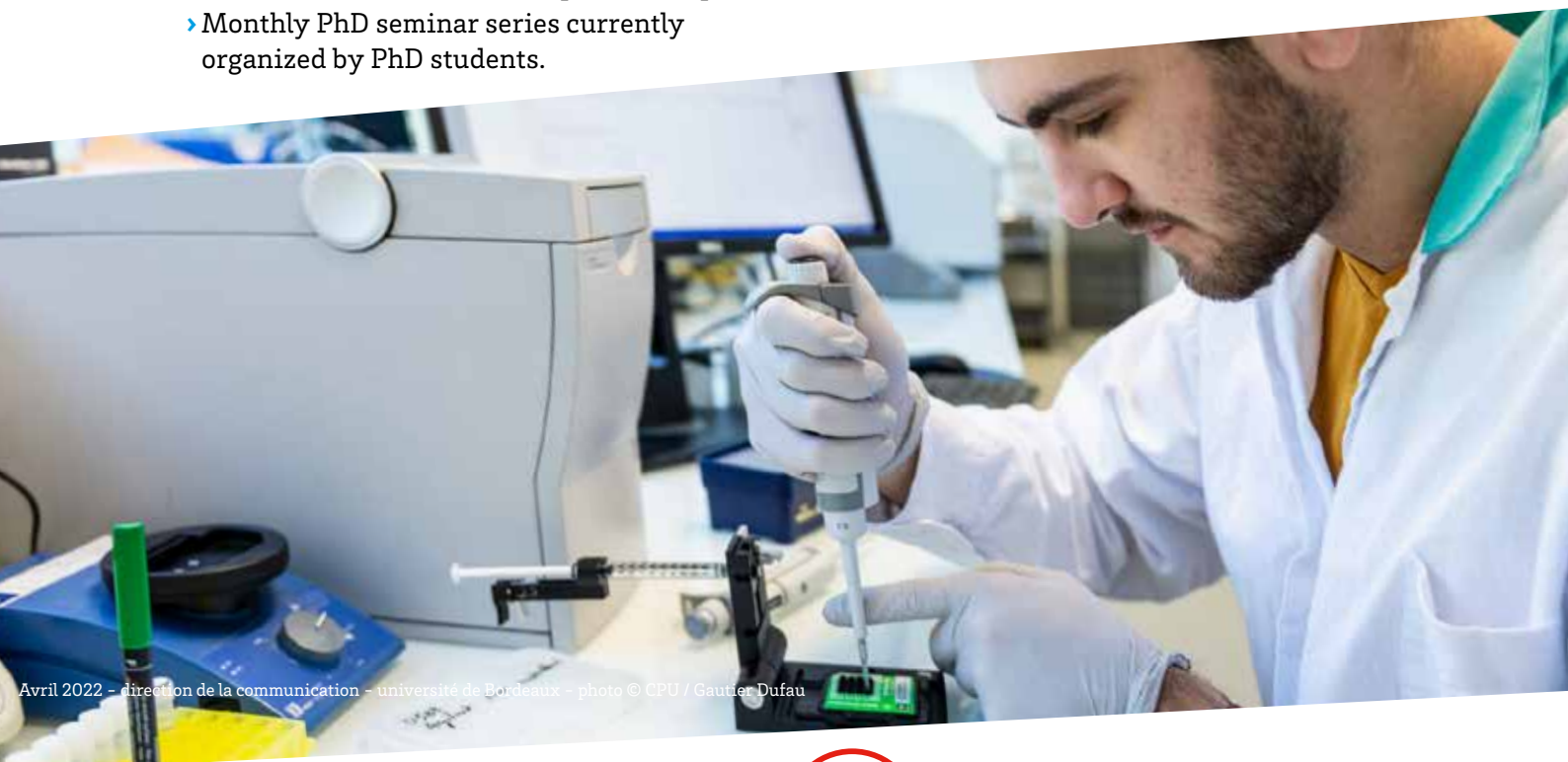
- › Personal interview (in person on site at Bordeaux Neurocampus or via Skype): 30 minutes to present academic background, research experience, motivation and arguments justifying the choice of three preferred PhD research projects.
- › Discussion and final validation with the PhD supervisor.
- › Pedagogical and administrative registration. PhD students of the program are enrolled in the Life and Health Science Doctoral School of the University of Bordeaux.

Website



Contact

neurocampus.graduateprogram@u-bordeaux.fr



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Graduate Research School / université de BORDEAUX

Cancer Biology

Program Outline

Selected by the French "Investissements d'avenir" program, the Graduate Program in Cancer Biology focuses on knowledge, innovation and cross-disciplinarity, with the support of public research organizations – such as the French National Center for Scientific Research (CNRS), French National Institute of Health and Medical Research (Inserm), the Bordeaux University Hospital Centre, the Bergonié Comprehensive Cancer Centre, etc. The program is primarily research-oriented, with an emphasis on interdisciplinary approaches to the study of cancer. Our training addresses a wide range of topics related to the cellular and molecular mechanisms underlying cancer emergence and development, the tumor microenvironment, therapeutic approaches and current clinical care.

It focuses on lab immersion, starting from the Master's level (through internships), and provides the necessary background to carry on with a PhD degree in Health and life sciences (specializing in Cancer biology).

Admission Requirements

- › Hold a Master's degree in Biology or a relevant Life-sciences field
- › Demonstrate an excellent academic and scientific level
- › Demonstrate previous experience in a research laboratory.

Academic Cooperation

- › US: University of Arizona, Stanford University, City of Hope Medical Center
 - › Canada: McGill University
 - › Brazil: University of Porto Alegre
 - › Portugal: University of Lisbon
 - › Spain: University of Saragossa, University of Seville
- ... among other international partners of the University of Bordeaux in oncology labs.

Doctoral School

Health and life sciences

Program duration

3 years

Language Requirements

Program taught entirely in English, a C1 level according to the CEFR is required.

Fees and scholarships

- › PhD positions are offered on a yearly basis
- › International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.
- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Strengths

- › Close connections to the Oncosphere network of research laboratories, dealing with all current issues in oncology (CNRS, Inserm, and various University of Bordeaux and international labs).
- › State-of-the-art technologies for cancer modeling, diagnosis and treatments.



› A strong, interdisciplinary, research dynamic and learning environment, providing students with the possibility to interact with not only biologists, clinicians and other health-professionals, but also physicists, mathematicians, chemists, computer scientists and philosophers of science working in the field of cancer.

Program Structure

› Students will follow 100 hours of training during their PhD : 50 hours of general training including scientific integrity and ethics ; 50 hours of disciplinary training among the training offer, including technological and scientific training. The international PhD-training includes:

- › Monthly seminar series in oncology.
- › Participating in various research projects within the Oncosphere labs and their partners worldwide.
- › Access to high-quality research-facilities.
- › Conferences, seminars, workshops on cancer organized by the Biological and medical sciences department, the Oncosphere research network, and/or the SIRIC BRIO.

- › Participating in the Great South-West Canceropole annual congress.
- › Participating in the Scientific Doctoral-School Day.
- › Organizing and participating in the Graduate-Program Cancer-Biology Scientific-Day (for graduate students and junior researchers), within the frame of the Oncosphere yearly-symposium.

And after?

The Graduate Program in Cancer Biology prepares students for various career paths (research, teaching, project management, scientific mediation, etc.) in the academic as well as the private sector.

How to apply?

Applications are to be submitted online.

Website



Contact

cancerbiology@u-bordeaux.fr



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Numerics

Program Outline

The generalized use of data and smart digital systems heralds a new digital age: from digital nomadism and intelligent cities to a better understanding of human needs and uses. These future systems, dedicated to the analysis, recognition and optimization of resources, pave the way to life-changing applications, but require a broad scientific knowledge and skills in digital sciences.

To form the experts of the future, we propose trainings in mathematics, computer science and science for engineers, combined with social sciences.

Admission Requirements

BSc, MSc or Engineering Degree, majoring in Computer Science, Mathematics or Engineering.

Academic Cooperation

Main collaborations:

- › North America: USA (Cincinnati...), Canada (Ottawa, Vancouver, Montreal, Quebec...)

- › Europe: Germany (Dresden, Darmstadt, Regensburg, Duisburg-Essen...), Spain (Barcelone...), Italy (Milan, Padoue), Netherlands (Leiden), Roumania, Bulgaria
- › Asia: Taiwan, India (Madras), Israel (Ben Gurion)
- › South America: Brasil, Panama
- › Oceania: Australia (Melbourne)

Doctoral School

- › Physics and Engineering
- › Mathematics and Computer Science

Program duration

3 years

Language Requirements

Program taught entirely in English, a B2 level according to the CEFR is required.

Fees and scholarships

- › PhD positions are offered on a yearly basis
- › International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.

- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Strengths

- › Numerics is a selective course. Training master's and doctoral students to digital sciences.
- › Numerics is interdisciplinary (mathematics, computer science, electronics and systems engineering) and international, and addresses research and industry. In the context of urging societal challenges, Numerics students acquire the scientific expertise in data science an engineering, complex systems or artificial intelligence.
- › Students are given access to research platforms: big data, parallel computing, robotics, internet of things, drones.



- › They benefit from the Numerics industrial and academic network, and the program facilitates internships (local and international research laboratories) by covering mobility costs.
- › All along the course, students are individually tutored by Numerics academics.

Program Structure

Each PhD student must attend:

- › A common thematic week of their choice with Master's and PhD students (including a half-day of final presentations).
- › Weekly seminars (fall term).
- › Each PhD student can choose a minor outside their specialization by choosing courses from other disciplines. Throughout the program, students will have the opportunity to customize their curriculum with projects across disciplines and degrees, potentially mixing master's and PhD students.

And after?

The PhD Program Numerics prepares students for different career opportunities (research, teaching, project management, scientific mediation, etc.) in innovative companies, R&D teams in the industry, or academic research.

How to apply?

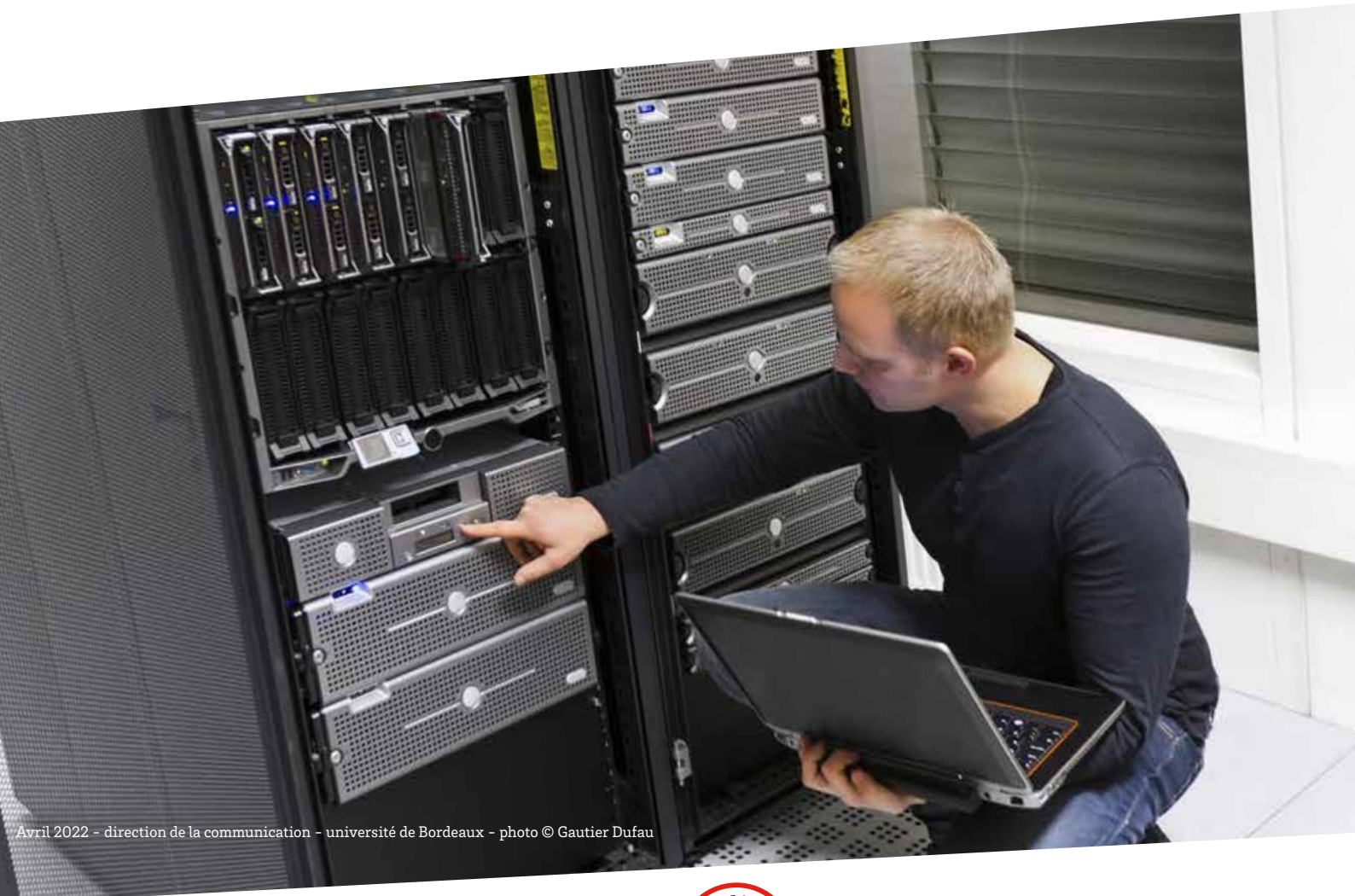
Applications are to be submitted online.

Website



Contact

gp-numerics@u-bordeaux.fr



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Graduate Research School / université de BORDEAUX

MASTER

Pharmacovigilance and Pharmacoepidemiology (Eu2P)

Program factsheet

COOPERATION

Collaboration with European universities and experts from regulatory bodies and the pharmaceutical industry.

ACADEMIC PARTNERS

- › France: University of Bordeaux (academic coordinator)
- › Italy: Università della Campania Luigi Vanvitelli, Napoli
- › The Netherlands: Erasmus Universitair Medisch Centrum Rotterdam / Universiteit Utrecht
- › Spain: Universitat Autònoma de Barcelona
- › U.K.: University of Hertfordshire

INDUSTRIAL PARTNERS

- › Belgium: Amgen / Janssen Pharmaceutica / UCB Pharma
- › Denmark: Novo Nordisk / Lundbeck
- › Finland: Orion Corporation
- › France: Iqvia / Sanofi
- › Germany: Bayer Pharma / Boehringer Ingelheim International

- › Spain: Almirall
- › Sweden: AstraZeneca
- › Switzerland: Hoffmann-La Roche AG / Novartis Pharma
- › U.K.: Eli Lilly / GlaxoSmithKline Research and Development / Shire

REGULATORY PARTNERS

- › European Medicines Agency
- › Agence Nationale de Sécurité du Médicament et des Produits de Santé

LEVEL

Joint Master of Science degree. European qualification supported and recognized by the Eu2P regulatory and industrial partners.

PROGRAM DURATION

- › 2 years (120 ECTS).
- › Direct access to second year for postgraduate with epidemiology, pharmacology and statistics knowledge.

ADMISSION REQUIREMENTS

Year 1 requirements:

- › Bachelor degree in Health or Life Sciences.

Year 2 requirements:

- › Postgraduate degree in Health or Life Sciences along with additional knowledge and experience in statistics, epidemiology and pharmacology.

LANGUAGE REQUIREMENTS

Non-native English speakers must provide a certificate proving a minimum of English B2 level according to the "Common European Framework of Reference for Languages" grid (European Union and Council of Europe, <http://europass.cedefop.europa.eu>).

TUITION FEES

The tuition fees only change according to full-time professional or student status but do not vary according to location.

- › Professionals: 12,000€/year
- › Students: 7,000€/year

No additional costs and no mobility required.

Program outline

The aim of the Eu2P Master in Pharmacovigilance and Pharmacoepidemiology is to respond to the growing need for well-trained professionals in pharmacovigilance and pharmacoepidemiology highlighted by industry, regulatory and academic bodies.

There is a particular need for skilled people, trained in medicine risk-benefit assessment, risk management plan elaboration, risk minimization and risk communication. Eu2P-trained professionals are qualified for new job profiles such as project managers, pharmacoepidemiological coordinators, risk-benefit analysts and people able to interact with statisticians and clinicians.

Eu2P is designed for:

- › Non-specialists.
- › Graduate and postgraduate students in Health and Life Sciences.
- › Healthcare professionals.
- › Companies, regulatory agencies and academic institutions.

Program structure

The Eu2P Master offers six high level curricula track specializations to meet specific professional needs in:

- › Benefit assessment of medicines
- › Medicines risk identification and quantification
- › Medicines benefit-risk assessment
- › Medicines and public health
- › Medicines risk communication
- › "A la carte" track

Year 1 60 ECTS

- › Validation of mandatory basis modules for Pharmacovigilance and Pharmacoepidemiology (24 ECTS).
- › Completion of a tutored project (6 ECTS).
- › Validation of a research project (30 ECTS).

Year 2 60 ECTS

- › Validation of theoretical content (ten modules, 30 ECTS):
 - › Six mandatory theoretical modules.
 - › + Modules of the chosen track.
 - › + Choice of one or two complementary optional modules.
- › Validation of a research project (30 ECTS).

Each Master student must conduct a research project in parallel to the theoretical training during the academic year. This research project may be carried out within an academic, regulatory or private body. If the student is already employed, he/she may complete the research project for the employer.

Strengths



100% online, open to all professionals or students throughout the world. The Master may be completed at work or at home, you do not need to travel as even the examinations are online. 70% of our students are professionals and manage their Eu2P diploma while they work full or part-time, it's up to you!



Research projects may be performed in public or private environments.



The Eu2P European Master is built and recognized by all 24 academic, regulatory and industrial Eu2P partners. The courses are based on today's job market and practices.



Increasing worldwide recognition for the Eu2P program as an excellent employment opportunity and also a way of improving regulatory sciences.

→ And after?

- › Opportunities that involve collecting, monitoring, researching, assessing and evaluating information from healthcare providers and patients on the adverse effects of medications to ensure that drugs on the market are safe for patients and to identify new hazards associated with the medication.
- › Students are generally in either full or part-time employment and are likely to have a range of responsibilities, mostly in pharmacovigilance and medical information, monitoring safety data in either pre- or post-marketing studies or from spontaneous reports. Pharmacovigilance is an expanding area, primarily due to an increase in regulation and product withdraws based on safety concerns.
- › Following registration to Eu2P, students are invited to join the Alumni group via which they regularly receive job offers from all over the world.

How to apply?

Applicants must complete the on-line application procedure on the Eu2P program website:

› www.eu2p.org

Master applications may be submitted from February to June. Selection is made during the first two **weeks of July**.

Contact

PROGRAM MANAGER:
Dr. Karine Palin
eu2p.office@eu2p.org
www.eu2p.org

Eu2P

imi Innovative medicines initiative

efpia

www.u-bordeaux.com

@univbordeaux univbordeaux universitedebordeaux

TOMORROW'S SUCCESS
STARTS **TODAY**

MASTER

Analytical Chemistry for Drugs and Natural Products



Program factsheet

ACADEMIC COOPERATION

Consortium of fifteen partners:

- › Algeria: University of Algiers
- › Brazil: Universidade de São Paulo
- › Canada: Concordia University, Université de Montréal
- › France: University of Bordeaux
- › Germany: Max Rubner Institute
- › Iceland: Sigillum Universitatis
- › Italy: Università di Parma, Università degli studi di Ferrara
- › Japan: University of Tsukuba
- › Morocco: Agence Nationale des Plantes Médicinales et Aromatiques
- › Portugal: Instituto Politécnico de Bragança
- › Turkey: Hacettepe University
- › United States: University of California San Diego, University of South Florida

Program outline

This second year Master degree allows students to deepen their theoretical and practical knowledge in the field of analytical chemistry and the control of drugs and health products that are based on plants. It focuses on the quality control of such health products compared to international standards.

The Master degree also aims to increase the safety of therapeutic products that are based on plants and which are therefore not concerned by the pharmaceutical circuit controls.

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirement:

- › Hold a first level Master in pharmacy or 4 years study in pharmacy, chemistry or biochemistry.

LEVEL

Master degree: 2nd year.

PROGRAM DURATION

1 year (60 ECTS).

LANGUAGE REQUIREMENTS

English: certifiable equivalent of TOEFL score of 550/213/79-80 or IELTS score of 6.0

TUITION FEES

3,370€ for non-EEA students.

The program thus develops a strong interdisciplinary dimension through the involvement of pharmaceutical sciences, technical sciences and the legal domain.

Program structure

Semester 1

Education units in Bordeaux

- › Access to Euro- Mediterranean market of drugs and other health products (3 ECTS)
- › Microbiology control and quality (2 ECTS)
- › Drug design & pharmaceutical technology for drugs and natural products (3 ECTS)
- › Quality control applied to drugs (3 ECTS)
- › Research and development of analytical methods for drugs and other health products (3 ECTS)
- › English & communication skills (3 ECTS)
- › Quality by design & chemometry (3 ECTS)
- › International symposium of analytical method development and quality control (1 ECTS)
- › Validation (1 ECTS)

Project management

- › International management skills
- › Project management in Morocco (two month obligatory international mobility period at the Agence Nationale des Plantes Médicinales et Aromatiques)

Semester 2

- › Training period of six months in France or abroad (30 ECTS)

Strengths



Permits students from pharmacy and other specialties to acquire strong skills in analytical chemistry for drugs and natural products.



Includes "hands-on" qualification training for key techniques using the latest equipment from the university laboratories for chemical and structural analysis.



Develops global knowledge about analytical and regulatory problems related to counterfeit drugs and health products.

→ And after?

- › Graduates from the School of Pharmacy of the University of Bordeaux have an excellent employment record.
- › Graduates may access leading positions within pharmaceutical organizations; the cosmetics and food industry in France and around the world.

How to apply?

Students may apply online:

- › <https://apoflux.u-bordeaux.fr/etudiant/>

Contact

PROGRAM COORDINATOR:

Dr. Boutayna Rhourri-Frih

boutayna.frih@u-bordeaux.fr

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TOMORROW'S SUCCESS
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Public Health Data Science

Program Outline

- › The Master in Public Health Data Science provides a year of international research in public health data science, from project design to real life health data analysis and the communication of results.
- › Selected within the French "Investments for the Future" program as an "Initiative of Excellence", the program covers multidisciplinary skills in epidemiology, informatics and statistics, and ensures that students gain strong knowledge about the strengths and limits of digital technologies and their use in public health research.

Admission Requirements

Candidates must fulfill the following:

Hold at least a Master (year 1) degree with honors (minimum 240 ECTS or equivalent in terms of knowledge) in one (or more) of the following disciplines: statistics, medical informatics or epidemiology.

Academic Cooperation

The Master in Public Health Data Science is delivered by the University of Bordeaux along with the Bordeaux School of Public Health (ISPED) and the Bordeaux Population Health Research Center (BPH).

Program duration

1 year, including an internship (60 ECTS).

Language Requirements

This program is taught entirely in English. Excellent proficiency in English is therefore required. Non-native English-speaking students have to provide a TOEFL or IELTS certification (TOEFL score of 550/213/79-80 or IELTS score of 6.0).

Fees and scholarships

- › 243 € in 2021-2022 for French and EU students, 3770 € foreign students except EU.

*** Submitted to the vote of University authorities.*

- › Financial aid may be granted to selected applicants according to criteria of excellence.
- › Adults having interrupted their studies -> Training costs : 4100€

Strengths

- › Our MSc program ensures that students gain strong knowledge about the strengths and limits of digital technologies and their use in public health research.
- › Multidisciplinary skills:
 - 1) Epidemiology:** Translation of a public health / clinical problem into a research question, including the design of research plans. For surveillance systems,

observational and experimental studies (i.e. clinical trials), evaluation of validity and causality of an association.

2) Statistics: Methods for supervised and unsupervised statistical analysis and modelling of biomedical data (including highdimensional and time-to-event data), statistical learning, data mining, data integration, advanced computational statistics.

3) Medical Informatics:

Architecture of data integration (i2b2, Transmart), interoperability, knowledge representation (terminologies, ontologies), natural language processing, data visualization, programming, cloud computing and Hadoop, linked open data, security, confidentiality and integrity of data.

- › Multidisciplinary training involving the teaching teams of the Bordeaux School of Public Health as well as French and international researchers.
- › Possibility of a double degree between France (University of Bordeaux) and Canada (McGill).
- › Innovating training with flipped classrooms focused on data handling and e-learning courses.
- › Individual support for each student assured by the teaching team.

Year 2

Semester 1

- › **Basics (3 ECTS)**: Focus on basic knowledge and the functional capabilities of the tools used in health data analytics.
- › **Electronic Health Data (6 ECTS)**: Focus on the skills required to conceptualize, manage, analyze and communicate via health research carried out by Electronic Health Records (HER) and medicoadministrative databases (MA-DBs).
- › **Digital Cohorts (3 ECTS)**: Focus on the skills required to conceptualize, manage, analyze and communicate via cohort studies that integrate digital tools.
- › **Web Based Data (6 ECTS)**: Focus on the abilities needed to prepare Public Health studies which integrate data from social networks and web forums, linked open data and mobile data. Practice is carried out via a dedicated case study that involves the processing of large mobile dataset (call details records).

- › **Omics Data (6 ECTS)**: Focus on the abilities needed to conceptualize, manage, analyze and communicate using clinical studies that integrate high dimensional data.

Semester 2

- › **Value creation (3 ECTS)**: This final e-learning course prepares students so that as graduates, they are capable of becoming immediate contributors in the workplace whether it be in the academic or the industrial sector. Students learn to develop their entrepreneurial skills and also acquire an understanding of the societal and economic value created by digital public health data research.
- › **Internship (30 ECTS)**: Students complete their internship either with the research team that generated a project case study during the Public Health Data Science Master program or else with a team from the extensive research network of the Graduate Program.

How to apply?

Students may apply online

And after?

Upon completion of this Master in Public Health Data Science, students may continue with further studies and research via a PhD in Digital Public Health or they may enter the working world with strong qualifications for a career in public health.

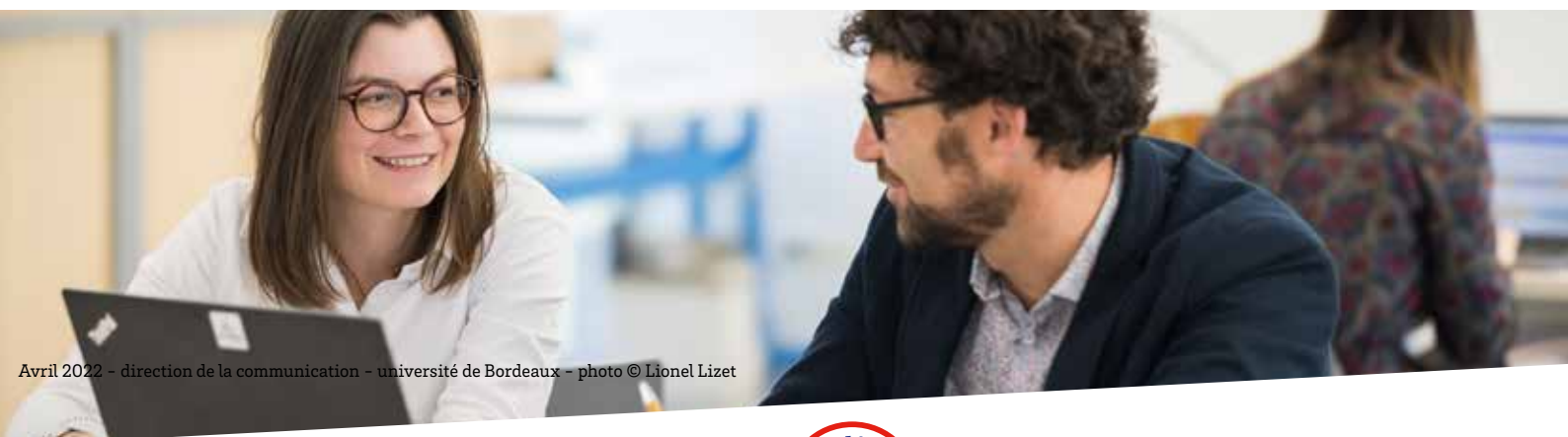
Graduates not only have a global vision of data science issues in relation to epidemiology and public health, they also master the research and leadership skills that are necessary for chief data officer jobs. They are thus well prepared to become future leaders of the digital public health domain within the public and / or private sector.

Website



Contact

dph@u-bordeaux.fr



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Graduate Research School / université de BORDEAUX

Cardiac EP - Electromechanical Heart Diseases

Program Outline

The Cardiac EP Master's degree provides research and innovation-based training for versatile, high-level specialists in the field of electrophysiology and cardiac bioengineering.

The program brings a global and transversal approach to all pathologies, including a cardiac electrophysiological component.

Admission Requirements

- › Candidates must have completed a 4-year degree in the field of medical/biomedical/biological science, veterinary science or pharmaceutical science or engineering (including CPGE (Preparatory classes for Grandes Ecoles for French students))
- › French medical students must have a validated DFASM3 or DFASP2 (advanced medical or pharmaceutical science training degrees) or have a background in equivalent research.

Academic Cooperation

The Cardiac EP Master of Science degree is delivered along with Liryc, the University-Hospital Electrophysiology and Heart Modeling Institute.

Program duration

1 year, including an internship (60 ECTS).

Language Requirements

Program taught entirely in English, a B2 level according to the CEFR is required.

Fees and scholarships

- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).
- › Scholarships may be granted to selected applicants on demand.

Strengths

- › Unique multidisciplinary teaching program focusing on cardiac electrophysiology and arrhythmias
- › Research-based teaching with practical sessions hosted within the laboratory.
- › Ideal research and training environment with world-renowned experts in the field, including international academic and industrial partners, contributing to the program.
- › Multitude of international mobility possibilities with students benefitting from a large network of international collaborators.
- › High-level training increasing students' employability and offering possibilities to continue with a PhD program in the field of cardiac electrophysiology.



Year 2

Semester 1

Basics (6 ECTS)

- › Focus on basic knowledge and the functional capabilities of the tools used in health data analytics.

Electronic health data (6 ECTS)

- › Focus on the skills required to conceptualize, manage, analyze and communicate via health research carried out by Electronic Health Records (HER) and medicoadministrative databases (MA-DBs).

Digital cohorts (6 ECTS)

- › Focus on the skills required to conceptualize, manage, analyze and communicate via cohort studies that integrate digital tools.

Web-based data (6 ECTS)

- › Focus on the abilities needed to prepare public health studies which integrate data from social networks and web forums, linked open data and mobile data. Practice is carried out via a dedicated case study that involves the processing of large mobile dataset (call details records).

Omics data (6 ECTS)

- › Focus on the abilities needed to conceptualize, manage, analyze and communicate using clinical studies that integrate high dimensional data.

Semester 2

- › Training period of six months in France or abroad (30 ECTS)

How to apply?

Documents required for the selection procedure:

- › Application form
- › Copies of all graduate diplomas (BSc and MSc)
- › All previous transcripts
- › CV in English (2 pages maximum)
- › Cover letter in English (2 pages maximum)
- › Recent English certificate or any document certifying a B2 level of English upon review.
- › Whenever possible (optional), one recommendation letter from an academic or professional body (2 pages maximum), including the referee's signature, presented on institutional headed paper and bearing an institutional stamp/seal.

And after?

Students benefit from high-level training and long-standing collaborations with international research centers and industrial partners in the field of cardiac electrophysiology.

Multiple opportunities are therefore available to:

- › Pursue a career in the biomedical industry
- › Further studies by enrolling in PhD training
- › For professionals, boost their career path within their sector.

Website



Contact

gp-eureka@u-bordeaux.fr



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Digital Public Health

Program Outline

Selected within the French "Investments for the Future" program as an "Initiative of Excellence", the PhD program in Digital Public Health is strongly focused on innovation and cross-disciplinarity. Students benefit from a variety of educational programs, ambitious training initiatives, international conferences and top-quality research facilities. Our students attend a series of classes in public health, epidemiology, informatics, and statistics and also learn the basics of health communication, economics, law, sociology and anthropology. They debate with peers from other disciplines, design plans and experiments, collect and analyze data, and communicate their thesis findings in research presentations. Our researchers and partners offer workshops based on their diverse and complementary expertise, such as modelling in health, mobile technologies for mental health, or evaluation of complex interventions.

Admission Requirements

This program is open to doctoral students with a research project in Digital Public Health, irrespective of their original field of study.

Candidates should:

- › Hold a Master of Science degree or equivalent relevant to public health (e.g. Informatics, Epidemiology, Statistics, Mathematics, Law, Sociology, Anthropology, Psychology, Communication, Economics, Marketing, etc.)
- › Prove an excellent academic and scientific level.
- › Be fluent in English (both oral and written).
- › Demonstrate an interest for interdisciplinary approaches.

Academic Cooperation

The Digital Public Health Graduate Program is a project conceived by the Bordeaux Population Health research center (BPH) and the Bordeaux School of Public Health (ISPED) and involves numerous academic and industrial partners within the domain of digital health.

Strong partnerships for

international mobility and / or PhD co-supervision with:

- › Canada: McGill University
- › The Netherlands: Maastricht University
- › Italy: University of Pisa
- › Sweden: Karolinska Institute
- › United Kingdom: University College London, Imperial College London

The Digital Public Health Graduate Program strongly encourages applications from international students with research projects in cosupervision.

Doctoral School

Society, Politics, Public Health

Program duration

3 years

Language Requirements

Program taught entirely in English, a B2 level according to the CEFR is required.

Fees and scholarships

- › PhD positions are offered on a yearly basis



- › International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.
- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Strengths

- › A comprehensive understanding of scientific methods and techniques applicable to the digital public health domain.
- › Self-direction and originality in tackling and solving problems.
- › The ability to communicate and collaborate with experts from other disciplines relevant to digital public health issues.

Program Structure

- › Our PhD program is a training in research, through research, and students conduct their work in different research teams under the supervision of a director.
- › Students are required to take research courses that include teaching sessions and

seminars related to digital public health and their PhD project. These courses correspond to about 100 hours over the duration of the Doctorate. Students plan their training and research courses with their thesis director.

- › In addition to the courses, students carry out their research to meet the aims of their project and to complete their thesis.

And after?

Graduates not only have a global vision of data science issues in relation to epidemiology and public health, they also master the research and leadership skills that are necessary for chief data officer jobs. They are thus well prepared to become future leaders of the digital public health domain within the public and / or private sector.

How to apply?

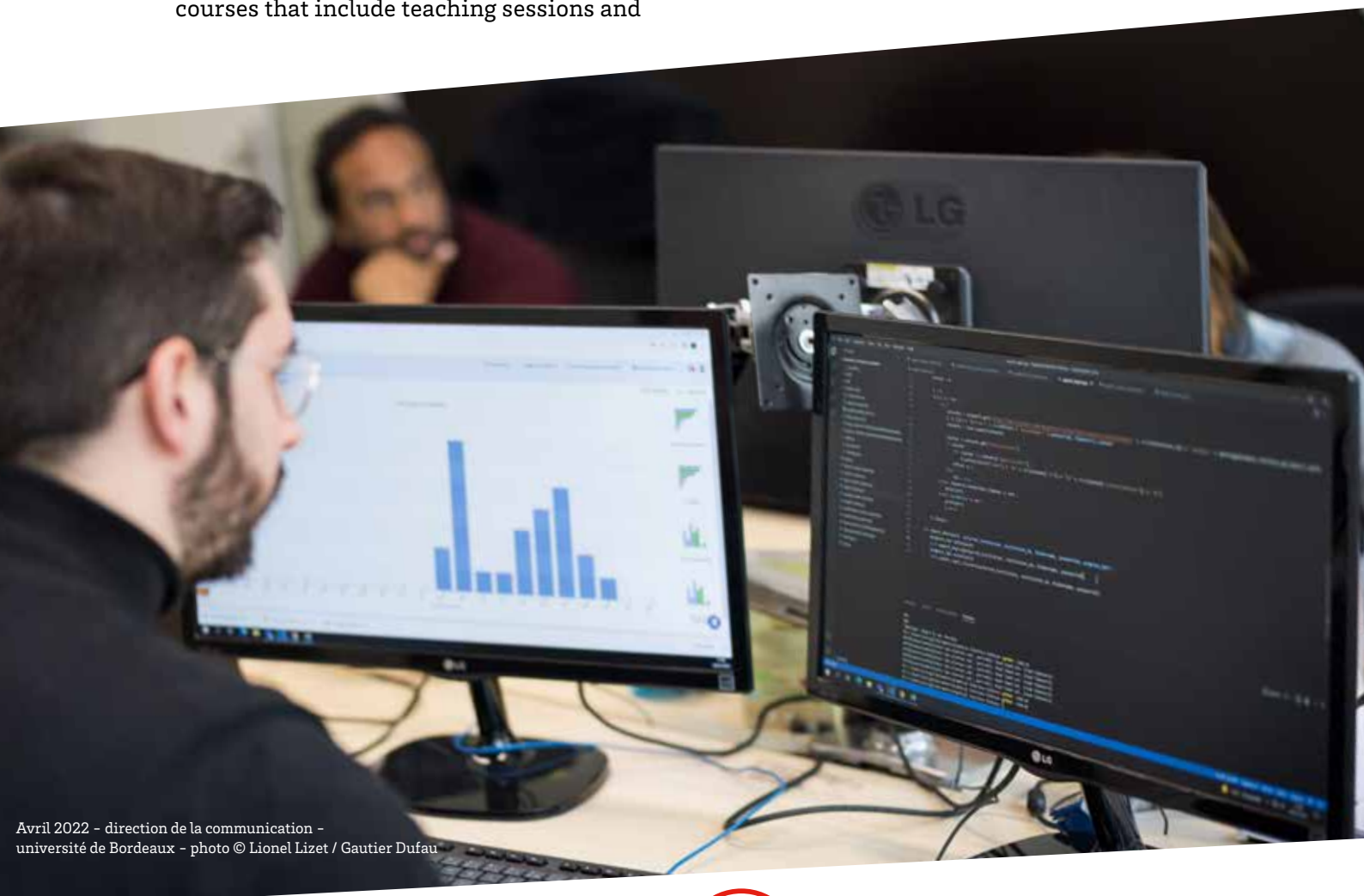
Applications are to be submitted online.

Website



Contact

dph@u-bordeaux.fr



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Cardiac EP

Program Outline

Selected by the French "Investissements d'avenir" program, the Cardiac EP Graduate-Program focuses on knowledge, innovation and cross-disciplinarity, with the support of public research organizations—such as the French National Center for Scientific Research (CNRS), the French National Institute of Health and Medical Research (Inserm), the Bordeaux University Hospital Centre, the French National Research Agency (ANR), etc. The program is primarily research-oriented, with an emphasis on interdisciplinary approaches to the study of cardiac electrophysiology and bio-engineering.

Admission Requirements

- › Hold a Master's degree (300 ECTS) in a relevant field, such as : medical, biomedical, biological, pharmaceutical, veterinarian or engineering sciences.
- › Demonstrate an excellent academic and scientific level.
- › Demonstrate previous experience in a research laboratory.

Doctoral School

- › Health and Life Sciences
- › Physics and Engineering
- › Mathematics and Computer Science

Program duration

3 years

Language Requirements

Program taught entirely in English, a C1 level according to the CEFR is required.

Fees and scholarships

- › PhD positions are offered on a yearly basis
- › International mobility grants and co-supervised theses are available upon application based on the program's academic collaborations.
- › Annual registration fees for all selected applicants are calculated according to the rules and regulations of the University of Bordeaux (approximately 400€).

Strengths

- › A unique multidisciplinary teaching program focusing on cardiac electrophysiology and arrhythmias.
- › Expertise of the Bordeaux Neurocampus research laboratories covering a wide variety of skills and technologies from basic to applied and translational research.
- › International mobility and/or training opportunities.
- › Access to international scientific networks via structured academic and industrial partnerships.
- › Cutting-edge facilities that feature technological innovations and provide graduates with hands-on training.



Program Structure

The international PhD-training includes:

- › Monthly seminar series.
- › Participating in various research projects within the IHU Liryc lab and their partners.
- › 100hrs of additional courses, balanced between disciplinary (cardiac electrophysiology and bio-engineering) and complementary training (including ethics and entrepreneurship).

And after?

The Cardiac EP Graduate-Program provides not only high-quality training in the field of cardiac electrophysiology, but also opportunities to collaborate with research centres and industrial partners internationally.

How to apply?

Applications are to be submitted online.

Website



Contact

gp-cardiacep@u-bordeaux.fr



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Graduate Research School / université de BORDEAUX

MASTER Wine Tourism Innovation (WINTOUR)



Program factsheet

ACADEMIC COOPERATION

Joint Erasmus Mundus Master between:

- › Rovira i Virgili University (URV), Tarragona, Spain
- › University of Porto (UP), Portugal
- › University of Bordeaux (UBx), France

LEVEL

Triple Master degree.

PROGRAM DURATION

2 years (120 ECTS).

LANGUAGE REQUIREMENTS

English: certifiable equivalent of TOEFL score of 550/213/79-80 or IELTS score of 6.0

TUITION FEES

- › Fees for program* countries students: 4,500€/year
- › Fees for partner* countries students: 9,000€/year

NB: students may follow the WINTOUR program as self-funded students or may apply for one of the Erasmus+ scholarships (EMJMD action) available. These scholarships are designed to cover most student expenses throughout the WINTOUR course.

ADMISSION REQUIREMENTS

Candidates must fulfill the following requirements:

- › Have completed a university Bachelor or Master degree (minimum 180 ECTS) in the fields of Tourism, Economics, Management, Marketing, Languages, Natural and Experimental Sciences (e.g. Oenology, Biotechnology, Food Technology, Agriculture), or closely related subjects.

- › Personal motivation, prior work experience in the field, as well as linguistic skills in languages other than English (especially Spanish, French or Portuguese, the languages of the organizing institutions) are important elements in the selection process.

LANGUAGE REQUIREMENTS

Candidates must present a recent English language certificate, with at least a B2 level according to the Common European Framework of Reference for Languages (official test certifications from Cambridge ESOL, IELTS or TOEFL are accepted).

**Program/partner countries: please consult our website for the list of these countries.*

Program outline

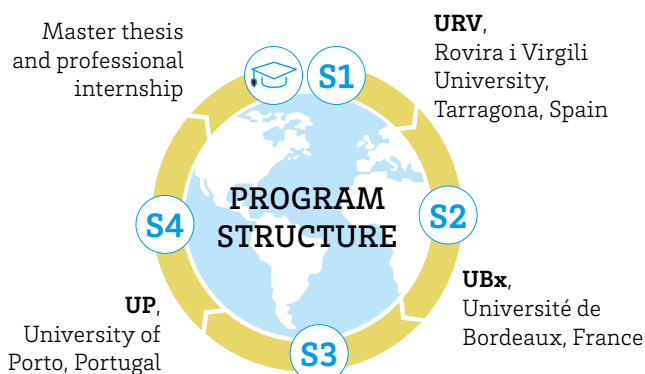
The Erasmus Mundus Master in Wine Tourism Innovation (WINTOUR) offers a truly integrated study program that takes advantage of the tourism and oenology expertise of three universities and regions of Europe.

These universities are located in highly attractive touristic areas, recognized with the label of UNESCO Human Heritage, and have a long tradition in wine, producing specialty wines such as sparkling, fortified, aged red and sweet.

The objectives of the WINTOUR program are to:

- › Prepare broadly trained, highly adaptable, qualified professionals for the tourism and wine industries. These graduates may then promote innovative wine tourism developments to generate added value through increased income and recognition of this sector.
- › Provide students with multidisciplinary and multi-sectorial knowledge and training that increases their understanding of wine-making and tourism management.
- › Promote high-quality, practical training in entrepreneurship and company management via the organization of internships within the non-academic sector.

- › Ensure the effective integration and networking activities of students within the socio-cultural and professional environment during their period of training.



Program structure

	Optional	Wine tourism & marketing	Wine-making	Wine heritage	Internships
S1 URV	<ul style="list-style-type: none"> › Adaptation to oenology (6 ECTS) › Adaptation to geography & economy (6 ECTS) › Adaptation to economics (3 ECTS) 	<ul style="list-style-type: none"> › Leisure and wine tourism (6 ECTS) › Marketing of tourism & wine (6 ECTS) 	<ul style="list-style-type: none"> › Sparkling wine production (6 ECTS) 	<ul style="list-style-type: none"> › Spanish wine regions (3 ECTS) › Spanish wine heritage & culture (3 ECTS) 	<ul style="list-style-type: none"> › Adaptation to practical wine-making (3 ECTS)
S2 UBx		<ul style="list-style-type: none"> › Management of wine tourism firms and entrepreneurship (3 ECTS) › ICT & wine tourism - Oenotourism 2.0 (6 ECTS) 	<ul style="list-style-type: none"> › Aged & sweet wine production (6 ECTS) 	<ul style="list-style-type: none"> › Wine appellations knowledge, food matching and service, tasting (6 ECTS) › French wine heritage & traditions (3 ECTS) 	<ul style="list-style-type: none"> › Wine tourism internship (6 ECTS)
S3 UP		<ul style="list-style-type: none"> › Wine tourism behavior (3 ECTS) › Wine tourism communication and new marketing tools (6 ECTS) › Wine tourism events management (3 ECTS) 	<ul style="list-style-type: none"> › Fortified wine production (6 ECTS) 	<ul style="list-style-type: none"> › Portuguese wine regions › Portuguese wine heritage and tourism (3 ECTS) 	<ul style="list-style-type: none"> › Practical wine-making
S4	Master thesis and professional internship (30 ECTS)				

How to apply?

Selection is based on the following criteria:

- › CV and academic track record (50%)
- › Cover letter and professional project: an individual interview may be organized (30%)
- › Professional experience in the field and previous international mobility (10%)
- › Other languages especially Spanish, French or Portuguese (10%)

1st call: applicants Erasmus Mundus (EMJMD) scholarships

› 14th November 2019 - 6th February 2020

2nd call: self-funded applicants

› 12th March 2020 - 29th April 2020

Consult the website: www.wintour-master.eu/en/apply/

Strengths

Managing complex information on different topics in a foreign language.

Defining diagnostics/assessments via the efficient management and use of information.

Solving problems within multidisciplinary contexts in a creative and innovative way.

Collaborating with multidisciplinary teams within different contexts.

Communicating complex ideas clearly to all target publics.

Applying ethical principles and social responsibilities as a citizen and as a professional.

Developing the necessary autonomy to work on research projects within scientific/technological partnerships.

→ And after?

The WINTOUR program trains professionals in the field of oenology and tourism, who may apply for positions in the following areas:

- › **Private sector:** creation of start-ups and business initiatives with a focus on wine as a tourist attraction and tourism as a means for promoting wine and wine regions; development of international marketing strategies, wine tourism activities of companies within the wine industry; specialized consultancy in the design and development of new strategies for increasing the competitiveness of the wine sector.
- › **Public administration:** positions in public organizations responsible for the planning, management and promotion of wine tourism products at a local, national and international level.
- › **Research and teaching:** participation and leadership of multidisciplinary research teams in the fields of oenology and tourism, in public or private research organizations.

Contacts

PROGRAM COORDINATORS:

- › **Gemma Beltran (URV):** gemma.beltran@urv.cat
- › **Pierre-Louis Teissedre (UBx):** pierre-louis.teissedre@u-bordeaux.fr
- › **Laurence Geny (UBx):** laurence.geny-denis@u-bordeaux.fr

SECRETARY: master.wintour@urv.cat

www.wintour-master.eu/en_index/



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TOMORROW'S SUCCESS
STARTS **TODAY**

Our Welcome Contacts

To find out more information about the study program that interests you, please phone or email the contact indicated on the flyer.

For any questions concerning our exchange programs and studying in Bordeaux, please contact our International Mobility Officers (International Office). Finally, our Student Life Centers also provide information about student life in Bordeaux.

› **Science and Technology / Biology**

› **Vine and Wine Sciences**

International Office:

incoming-talence@u-bordeaux.fr / +33 5 40 00 83 33

Student Life Center:

bve.talence@u-bordeaux.fr / +33 5 40 00 84 84

› **Health / Human Sciences**

› **Sports and Physical Education**

International Office:

incoming-carreire@u-bordeaux.fr / +33 5 57 57 46 77

Student Life Center:

secbve.bordeaux@u-bordeaux.fr / +33 5 57 57 17 79

› **Law, Political Science, Economics, Management**

› **School of Education**

International Office:

incoming-pessac@u-bordeaux.fr / +33 5 56 84 29 84

Student Life Center:

bve.pessac@u-bordeaux.fr / +33 5 56 84 62 60

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