



Be part
of our story

université
de **BORDEAUX**



53,000
students



Over 170
partner universities.



Shanghai general ranking 2015: N°204

The University of Bordeaux is positioned within the top ten of French universities.

A Campus of Excellence

The University of Bordeaux is ranked among the top universities in France for the quality of its academic courses and research.

Named a "campus of excellence" and supported by a significant endowment from the French government in 2011, this multidisciplinary, research-focused, international institution leads the **Initiative of Excellence** program.

The University of Bordeaux develops innovative training, research and knowledge transfer programs in numerous fields of excellence and in partnership with other educational institutes in Bordeaux.



International Outlook

- › Internationalize our study programs with more English-taught courses, mobility experiences and double degrees
- › Reinforce our strategic partnerships within the domains of education and research
- › Increase our participation within EU education and research programs
- › Provide an ever warmer welcome for international students and researchers
- › Promote the international visibility of our university

Our aim? To promote Bordeaux as **THE international academic destination** for future generations of students and researchers.

Dedicated exchange programs with over **60 countries** worldwide.



Study with us!



245
study programs



180
master specialties

unique specialties

E.g. our national diploma in wine science.

Multidisciplinary

 College of Law, Political Science, Economics, Management

 College of Health Sciences


 College of Human Sciences

 College of Science and Technology

 Institute of Vine and Wine Science

 Institute of Technology

 Institute of Education

 5th university in Europe in terms of sporting results

3rd

France is the third most popular destination 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?!

International study at Bordeaux


40

International study programs at every level (Bachelor, Master, Doctorate), in every discipline.


11

EU-labeled programs, acknowledging their excellence.



2,200

students each year with exchange mobility (incoming/outgoing).



+ 6,200

international students in 2015 (150 different nationalities).



Leading university in France for the Erasmus Mundus Program

Participation in many international exchange programs: Erasmus+, Quebec Exchange Program, University of California Education Abroad Program, etc.

International research at Bordeaux



Over 800
international researchers welcomed
in 2015.



280
joint PhD agreements.



18
international joint research laboratories
with Canada, China, Germany, India, Israel,
Italy, Ivory Coast, Japan, Mexico, Romania,
Russia, South Korea.



150
EU collaborative projects (H2020 and FP7).



Welcome Center for International
Researchers including PhD students.



Nearly 100
different nationalities welcomed
and supported with administration,
accommodation, social and cultural
integration services.



20
national and international scientific prizes
in 2014/2015.



9
thematic clusters of excellence:
neuroscience, medical imaging, environment/climate,
advanced materials, archeology, lasers/optics, digital
certification, health and society, cardiology including
5 Laboratories of Excellence (LabEx).



7
Equipments of Excellence (EquipEx).



1
University Hospital Institute (IHU)
in the field of cardiology.



1
Student Population study cohort (i-Share).



8
PhD Summer schools:
neuroscience, electronics, chemistry and
engineering, population health sciences etc.

Research, our driving force



4,000
lecturers and researchers
(UBx and research
institutes: CNRS,
Inserm, Inra, Inria...)



8
doctoral schools



70
research laboratories



2,000
PhD students



Strong partnerships
with national research
institutes, among which
CNRS(*), Inserm, Inra,
Inria and CEA

Our study programs taught in English

Law, Political Science, Economics & Management

- › Master: EUROPEAN BUSINESS ADMINISTRATION p. 6
- › Master: INTERNATIONAL MANAGEMENT p. 7
- › Master (MBA): BUSINESS ADMINISTRATION AND FINANCE p. 8
- › Master: ECONOMIC AFFAIRS p. 9

Science and Technology

- › Postgraduate diploma: AERO-SYSTEM OPERATIONS (AESOP) p. 11
- › Master: IMAGE PROCESSING AND COMPUTER VISION (IPCV) p. 13
- › Master: SCIENCE IN MARINE ENVIRONMENT AND RESOURCES (MER) p. 15
- › Master: FUNCTIONALIZED ADVANCED MATERIALS AND ENGINEERING (FAME) p. 17
- › Master: PHYSICAL CHEMISTRY AND CHEMICAL PHYSICS (PCCP) p. 19
- › Master: ADVANCED MATERIALS p. 21
- › Master: ENTERPRISE ENGINEERING p. 23
- › Master: ALGEBRA, GEOMETRY AND NUMBER THEORY (ALGANT) p. 25
- › PhD: ALGEBRA, GEOMETRY AND NUMBER THEORY (ALGANT-DOC) p. 27
- › PhD: INTERNATIONAL DOCTORAL SCHOOL - FUNCTIONAL MATERIALS FOR ENERGY, INFORMATION TECHNOLOGY AND HEALTH (IDS-FUNMAT) p. 28

Health Sciences

- › Master: PHARMACOVIGILANCE AND PHARMACOEPIDEMIOLOGY (Eu2P) p. 30
- › Master: ANALYTICAL CHEMISTRY FOR DRUGS AND NATURAL PRODUCTS p. 32
- › Master: BIO-IMAGING p. 33
- › Master: BIOLOGY AGROSCIENCES p. 35
- › Master: NEUROSCIENCE p. 37
- › Master: NEUROSCIENCE (NEURASMUS) p. 39
- › Master: NEUROSCIENCE AND BIOTECHNOLOGY - EURO-MEDITERRANEAN PROGRAM p. 41
- › PhD: EUROPEAN NEUROSCIENCE CAMPUS (ENC) NETWORK p. 43

Wine Sciences

- › Master: BUSINESS AND SCIENCE IN VINEYARD & WINERY MANAGEMENT p. 45
- › Master: WINE TOURISM INNOVATION (WINTOUR) p. 46

European Business Administration

Program factsheet

Admission requirements

Applicants must fulfill the following requirements:

- › Have completed a 3 year course (180 ECTS) in any study field.
- › Note: the program is open to graduates from a non-business/management field with little or no business experience and who are looking to develop their knowledge of the business environment and managerial skills.

Program duration

1 year (60 ECTS).

Program outline

The aim of this Master program is to teach the basics of management to students from different academic backgrounds.

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

Program structure

Semester 1

- › Organizational theory
- › Organizational strategy
- › Economic globalization
- › European economic environment
- › European institutions
- › European law 1
- › International accounting 1
- › Financial mathematics
- › Decision-making and statistical analysis
- › Business French 1

Semester 2

- › Marketing
- › Human resources
- › International strategy
- › Corporate finance
- › Banking and finance in Europe
- › European law 2
- › International accounting 2
- › Business French 2
- › Internship/dissertation

Contacts

Program director: Pedro Arbulu

Program coordinator: Azalée Rombaut

azalee.rombaut@u-bordeaux.fr / + 33 (0)5 56 00 97 19

IAE Bordeaux (International Relations Office)

35 avenue Abadie / CS51412, 33072 Bordeaux Cedex, France

Level

Master degree / Year 1.

Language requirements

Advanced 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.

Tuition fees

3,600€ plus registration fees (500€).

How to apply?

Send the documents below by post to the International Office:

- › M1 EBA Application Form
- › Official transcripts, copies of all previous diplomas received
- › Passport copy (or ID card if European)
- › Copy of birth certificate (if non-European)
- › Cover letter and CV (in English)
- › Language test (ECTS, TOIEC, IELTS...) or certificate of studies in an English speaking High School
- › Four passport sized photos

Keep in mind!

- › Maximum number of students: 30
- › Selection: based on documents and an interview

And after?

By completing this diploma, students will gain the necessary skills and groundwork to enter the one-year Master 2 in Business Administration (MBA) or Master's Degree in International Management.

More information:

www.u-bordeaux.com
www.iae-bordeaux.com

International Management

Program factsheet

Admission requirements

Candidates must fulfill the following requirements:

- › Have a Bachelor degree with honors or 4-year/240 ECTS equivalent in the business field.

Academic cooperation

Double degree with Northern Illinois University, USA and Universidade do Estado do Rio de Janeiro, Brazil.

Program duration

1 year (60 ECTS).

Program outline

The Master's degree in International Management is designed to provide students with a balance of practical knowledge and theory of management in the international environment.

How to apply?

Send these documents by post to the International Office:

- › Master International Management Application Form
- › Official transcripts, copies of all previous diplomas received
- › Passport copy (or ID card if European)
- › Copy of birth certificate (if non-European)
- › Cover letter and CV (in English)
- › Language test (ECTS, TOIEC, IELTS...) or certificate of studies in an English speaking High School
- › Four passport sized photos

Keep in mind!

- › Maximum number of students: 30
- › Selection: based on your documents and an interview

Contacts

- › **Program director:** Emmanuelle Sauvage
- › **Program coordinator:** Azalée Rombaut
- › azalee.rombaut@u-bordeaux.fr / + 33 (0)5 56 00 97 19

IAE Bordeaux (International Relations Office)
35 avenue Abadie / CS51412, 33072 Bordeaux Cedex, France

Level

Master degree.

Language requirements

Advanced 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.

Tuition fees

4,900€ plus registration fees (500€).

Program structure

Various teaching and assessment methods are used. During the seminars there will be course-work based assessment such as exercises, case studies and group projects, as well as tests and a final report on the internship completed in the second semester.

Semester 1

- › International business law/ contracts
- › International trade practices/ supply chain management
- › International strategic management
- › Information system, intelligence & security policies
- › Cross-cultural management
- › International environment 1
- › International marketing
- › International accounting and finance
- › Global human resources management

Semester 2

- › Serious game
- › Operations project management
- › International environment 2
- › Comparative perspective/ topics linked to management
- › Company visits
- › French foreign trade advisor conference cycle
- › Professional experience

And after?

This program aims to prepare students for executive positions in international companies or in subsidiaries that specialize in international markets.

More information:

www.u-bordeaux.com
www.iae-bordeaux.com

Business Administration and Finance (MBA)

Program factsheet

Admission requirements

Candidates must fulfill the following requirements:

- › Have a Bachelor degree with honors or 4-year/240 ECTS equivalent in the business field.

Program duration

1 year (60 ECTS).

Level

Master degree.

Program outline

The aim of the MBA is to develop knowledge of business and management to an advanced level.

It has the particularity of being taught entirely in English by visiting European and International professors and professionals as well as faculty staff.

How to apply?

Send the documents below by post to the International Office:

- › M2 BA application form
- › Official transcripts, copies of all previous diplomas received
- › Passport copy (or ID card if European)
- › Copy of birth certificate (if non-European)
- › Cover letter and CV (in English)
- › Language test (ECTS, TOEIC, IELTS...) or certificate of studies in an English speaking High School
- › Four passport sized photos

Keep in mind!

- › Maximum number of students: 30
- › Selection: based on documents and an interview

Contacts

Program director: Pedro Arbulu

Program coordinator: Azalée Rombaut

azalee.rombaut@u-bordeaux.fr / + 33 (0)5 56 00 97 19

IAE Bordeaux (International Relations Office)

35 avenue Abadie / CS51412, 33072 Bordeaux Cedex, France

Language requirements

Advanced 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.

Tuition fees

4,900€ plus registration fees (500€).

Program structure

Various teaching and assessment methods are used. During the seminars there will be course-work based assessment such as exercises, case studies and group projects, as well as tests and a final report on the internship completed in the second semester.

Semester 1

- › Economic and business environment
- › Business law
- › Organization behavior
- › Financial accounting
- › Cost accounting and management control
- › Information systems
- › Operations and logistics management
- › Decision-making and corporate finance

Semester 2

- › Financial statements analysis
- › Investment and portfolio management
- › Risk management
- › Business and strategic policy
- › Marketing management
- › Management business game
- › Business French
- › Internship

And after?

The program aims to prepare students for executive positions in companies or in subsidiaries.

More information:

www.u-bordeaux.com
www.iae-bordeaux.com

Economic Affairs

Program factsheet

Admission requirements

Candidates must fulfill the following requirements:

- › Hold an accredited bachelor's degree (or equivalent) in economics, management, law or the humanities fields, with a record showing high academic achievement.
- › Demonstrate a clear commitment to international affairs.
- › French students: M1 in economics, management, law, social sciences or humanities.

Level

Master degree.

Language requirements

An advanced level of English is essential and must be demonstrated by an official test result:

- › 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.

Program duration

1 year (60 ECTS).

Program outline

The Master in Economic Affairs (MEA) 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, designed for international and French university graduates.

The program provides students with an opportunity to develop a broad understanding of key economic issues in international affairs and an in-depth knowledge of practical European and international business skills and practices.

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 want to deepen their knowledge of international affairs theory and practice, those who aspire to a career in the international arena, those who wish to add an international dimension to their educational background, those who want to take part in a multicultural experience in a culturally rich and dynamic environment, those who desire to strengthen their proficiency in English and acquire basic language skills in French.

Program structure

September to November:

Students register for a three-month program (DU: university diploma), specifically designed for the MEA foreign students who do not speak French. The DU program offers intensive elementary-level language courses in French, intermediate-to-advanced level language courses in English, remedial courses in international economics, a business trip and access to cultural and intercultural activities and events.

December to June:

Courses for the MEA start in December.

Semester 1

(30 ECTS - 300 hours)

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

Semester 2

(30 ECTS - 210 hours)

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

How to apply?

- › All applicants must submit at least one letter of reference evaluating undergraduate and graduate academic performance and suitability for postgraduate study in international economic affairs.
- › A resume should be included in the application.

Keep in mind!

- › Maximum number of students: 20
- › Selection: based on documents and an interview

Contacts

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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, and focuses on working methods, readings, team-work and management projects.

And after?

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

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

More information:

economie.u-bordeaux.fr/Formations

AESOP: Aero-System Operations



Program factsheet

Academic cooperation

Consortium of two universities:

- › University of Cincinnati (Ohio, US)
- › University of Bordeaux: College of Science and Technology

Level

- › Collaborative Degree Program

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).

Program duration

1 year (60 ECTS/30 US credits)

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.

Tuition Fees

- › Annual tuition fees: 24,000 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 available online

Fall semester: Cincinnati

Core (9 credits)

AESOP Program Requirement

(3 credits, mandatory)

- › Introduction to Aircraft Systems, Regulations and Maintenance

Project / Task Management Development

(3 credits, choose one)

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

Interpersonal Skill Development

(3 credits, choose one)

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

Technical Specialty (6 credits, choose two courses)

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

Spring semester: Bordeaux

Aero-System Operations (12 credits)

Airworthiness Bordeaux/ENAC (mandatory)

Each module includes theory, applications and lab (3 credits, choose one):

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

Each module includes theory, applications and lab (6 credits, choose one):

- › Avionics Maintenance
- › Structural Maintenance
- › Propulsion System Maintenance
- › Human Machine Interface ENAC

Capstone Project (3 credits, mandatory)

Choice of sponsored research at IMA or internship at industry level

How to apply?

UBx students:

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

UC students:

- › <http://www.uc.edu/admit.html>

Contact

UBx / IMA, Mérignac

- › **Olivier Puissant**, Manager of the Aeronautic Program Lead
olivier.puissant@u-bordeaux.fr
- › **Franck Cazaurang**, Prof. of Automatism
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UC

- › **Kelly Cohen**, Prof. of Aerospace Engineering & Engineering Mechanics
cohenky@ucmail.uc.edu
- › **Eugene Rutz**, Academic Director, College of Engineering
rutzee@ucmail.uc.edu

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, graduate will be equipped to quickly and efficiently take on an operational position within the aircraft industry.

More information:

<http://www.u-bordeaux.fr/International/Formations-internationales>

<http://www.uc.edu/.html>

Image Processing and Computer Vision (IPCV)



Program factsheet

Academic cooperation

Consortium of 3 universities:

- › Pazmany Peter Catholic University, Budapest, Hungary
- › Universidad Autónoma de Madrid, Spain
- › University of Bordeaux, France

Level

Triple Master degree, completed by three diploma supplements. Students who successfully complete the International IPCV Master Program, including the compulsory mobility period, receive a national degree from each partner university:

Pazmany Peter Catholic University (PPCU):

- › MSc degree in Engineering Information Technology; specialization in IPCV.

Universidad Autónoma de Madrid (UAM):

- › Master degree in ICT Research and Innovation (i2-ICT).

University of Bordeaux (UBx):

- › Master degree in "Informatique", Specialization in IPCV;

Or

- › Master degree in "Ingénierie des Systèmes Complexes", Specialization in IPCV;

Level (cont.)

Or

- › Master degree in "Mathématiques appliquées, statistique", Specialization in IPCV.

A diploma certification is additionally awarded by the University of Bordeaux.

Admission requirements

Candidates must fulfill the following requirements:

- › Hold a Bachelor degree in Science from one of the three partner universities;
- › Have achieved an average grade of at least "Good" (according to local criteria) in the courses completed before the mobility period;
- › Have adequate knowledge of written and spoken English, equivalent to B2 according to the CEFR.

Language requirements

English: equivalent to B2 according to the CEFR.

Program duration

2 years (120 ECTS).

Program outline

The International Master Program in Image Processing and Computer Vision 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 program covers a wide range of methods in computer vision thus guaranteeing 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 result is a high-quality, strongly recognized, triple Master degree that respects the 120 ECTS syllabus, and is well adapted to job market criteria.

In order to benefit from the knowledge of these three partner universities and their professors, students spend an entire semester in each university.

Program structure

All students follow the same curriculum with some optional courses. The program is organized as follows:

Semester 1: PPCU, Budapest, Hungary.

Semester 2: UAM, Madrid, Spain.

Semester 3: UBx, Bordeaux, France.

Semester 4: Internship in academic laboratory or industries.

Semester 1

- › Functional Analysis (5 ECTS) – Compulsory
- › Parallel Computing Architectures (3 ECTS) – Compulsory
- › Numerical Analysis (4 ECTS) – Compulsory
- › Basic Image Processing Algorithms (5 ECTS) – Compulsory
- › Data Mining (5 ECTS) – Compulsory
- › Stochastic Signals and Systems (5 ECTS) – Optional
- › FPGA-based Algorithm Design (5 ECTS) – Optional
- › Biomedical Signal Processing (4 ECTS) – Optional
- › Programming Methodology (5 ECTS) – Optional
- › Intelligent Sensors (3 ECTS) – Optional

Semester 2

- › Applied Bayesian Methods (6 ECTS) – Compulsory
- › Biomedical Image Processing and Applications (6 ECTS) – Compulsory
- › Biometrics (6 ECTS) – Compulsory
- › Video Sequences Analysis for Video Surveillance (6 ECTS) – Compulsory
- › Tutored Research Project 1 (6 ECTS) – Compulsory

Semester 3

- › Image and Inversion (6 ECTS) – Compulsory
- › Variational Methods and PDEs for Image Processing (6 ECTS) – Compulsory
- › Advanced Image Processing (3 ECTS) – Compulsory
- › Video and Indexing (3 ECTS) – Compulsory
- › Image Acquisition and Reconstruction (3 ECTS) – Compulsory
- › IT Project Management (3 ECTS) – Compulsory
- › Tutored Research Project 2 (6 ECTS) – Compulsory

Strengths

- › International program taught by experts from three different universities in Europe.
- › Triple Master degree.
- › International mobility period in three countries.

How to apply?

Please send your curriculum vitæ, grades, cover and recommendation letters to:

- › application-ipciv@u-bordeaux.fr

And after?

After graduation, students have access to career opportunities such as engineers or further research as PhD 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

Contacts

PROGRAM COORDINATORS

University of Bordeaux:

Dr. Aurélie Bugeau, PhD

Universidad Autónoma de Madrid:

Dr. Jesús Bescós, PhD

Pazmany Peter Catholic University:

Prof. Peter Szolgay, PhD

More information:

www.u-bordeaux.com

<http://ipciv.eu/>



Science in Marine Environment and Resources (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 and Resources" 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 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.

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 Excellence Initiatives 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 Regional Aquitaine for Bordeaux: www.aquimob.fr).

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.

Program structure

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 six mandatory and optional modules (total: 90 ECTS):

- › **Module 1** - Fundamental: Ocean Science
- › **Module 2** - Framework: Global Ocean Environment
- › **Module 3** - Scientific Challenges and Opportunities: Marine Environment Protection and Resources Exploitation
- › **Module 4** - Socio-Economic Commitment: Marine Environment and Resources Management
- › **Module 5** - Data Analysis: Interpretation of Environmental Data
- › **Module 6** - Discovery: Research in MER

The MSc thesis research (Module 6) 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.
- › Students learn to prove strong mobility, autonomy and the capacity to adapt to different cultural and administrative conditions in the different countries involved.
- › At least three major European academic systems are experienced, and practice in applications for funding etc. at an international level is largely acquired.
- › 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.

How to apply?

Online application:
www.merconsortium.eu

Deadlines:

- › Application for Erasmus Mundus scholarship: 15th of January
- › For European self-funded students: 15th of May

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.

Contacts

General information on the MER program and the application procedure:

- › Master Secretariat at the coordinating University:
www.merconsortium.eu

Information on the track involving Bordeaux:

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

More information:

www.merconsortium.eu
www.u-bordeaux.com

Functionalized Advanced Materials and Engineering (FAME)

Program factsheet

Academic cooperation

Consortium of 7 universities:

- › **Belgium:** Université de Liège, Université de Louvain
- › **France:** Institut National Polytechnique de Grenoble (coordinator), University of Bordeaux
- › **Germany:** Technische Universität Darmstadt, Universität Augsburg, Technische Universität Darmstadt
- › **Portugal:** Universidade de Aveiro
- › European Multifunctional Materials Institute (EMMI)
- › International Doctoral School in Functional Materials (IDS-FunMat)

Level

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

Program duration

2 years (120 ECTS).

Language requirements

- › Students from English speaking countries must provide an official letter from the university confirming that English is the language of instruction.
- › For TOEFL, a minimum of 550, 213 or 79 points respectively for paper-based, computer-based and Internet-based TOEFL test is required.
- › Marks of at least 6 (out of a total of 9) are required for IELTS test. GPA (Grade Point Average) must be at least 75% of the scale maximum.

Program outline

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

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

Admission requirements

Candidates must have:

- › A 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: the tuition fees (8,000€/year for third-country students, 4,000€/year for European students) are covered by the Erasmus Mundus grant.
- › Self-funded students:
 - › Third-country students: 8,000 €/year (50% waiver may be granted by the consortium)
 - › European students: 1,000€/year

Grants:

- › Erasmus Mundus scholarships
- › Mobility grants from partner institutions
- › Track Augsburg/Bordeaux: grant funding mobility to Bordeaux
- › LabEX AMADEUS grants
- › IdEx - International Master grants (Bordeaux students covering 1st yr in Augsburg)
- › Eiffel grants (international students covering 2nd yr in Bordeaux)
- › DAAD grants (Bordeaux students covering 1st yr in Augsburg)
- › 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.

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 deal with general topics about material science (Augsburg or Grenoble).
- › 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 spent in one of the laboratories of the European Network of Excellence FAME or in a related industry.

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.
- › Strengthening of an international culture, including fluency in English, mobility as well as experience of the languages and culture of the countries visited.
- › Improved integration capacity into either Academic or Industrial R&D teams.

How to apply?

Online application:

www.fame-master.com

Deadlines:

- › Erasmus Mundus scholarship, Labex grants:
1st recruitment wave mid-January
- › Self-funded students, LabEx and IdEx - International Master grants:
2nd recruitment wave: mid-June

And after?

After completion of this Master, students are encouraged to apply for Ph.D programs in Europe, including those offered by IDS-FunMat, in the framework of EMMI.

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

Feedback

Excerpts from External Quality Assessment Board (EQAB) report (2013):

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.

Contacts

General information on the FAME program:

- › Master FAME coordination: master.fame@inpg.fr

Information on the Bordeaux track:

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

More information:

www.emmi-materials.eu
www.u-bordeaux.com

Physical-Chemistry and Chemical-Physics (PCCP)



Program factsheet

Academic cooperation

Consortium of 5 universities:

- › France: University of Bordeaux (UBx)
- › Ecuador: Universidad San Francisco de Quito (USFQ)
- › Belgium: Université de Namur
- › Spain: Universidad del País Vasco
- › The Netherlands: Universiteit Leiden

Level

- › Master of Science in Chemistry (specialization in Physical-Chemistry and Chemical-Physics)
- › Specific agreement with USFQ for a double degree: UBx-USFQ

Language requirements

A good level of English is required: level B2

- › M1: some classes are taught in English
- › M2: all classes are taught in English

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.

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€

Scholarships are available for the mobility period:

- › FidEx grants: for Bordeaux students, covering 5 to 9 months in one university of the consortium
- › IdEx Laphia grants (photonics projects)
- › AquiMob grants: www.aquimob.fr
- › Eiffel grants: for international students, covering a full year in Bordeaux
- › Mobility grants from partner 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
- › International mobility facilitates integration within both academic and industrial domains
- › Supported by the FidEx international program of the Bordeaux "Initiative of Excellence" program

Program structure

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 following the specific UBx-USFQ double degree program spend between five and nine months in Quito (Ecuador) to complete the Master thesis. During this period, assistant professor positions at the USFQ are available for Master students of the program.

International aspects of the program are introduced progressively during the first year, with some courses taught in English. A remote research project is also programmed to promote collaboration between students of the partner universities within 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)
- › Analytical chemistry (6 ECTS)
- › Spectroscopy (6 ECTS)
- › Quantum Chemistry and molecular simulation (6 ECTS)
- › Remote research project / English (6 ECTS)

Year 2

Courses are in English

- › Photonics, lasers and imaging (6 ECTS)
- › Dielectric and magnetic properties (6 ECTS)
- › Large scale facilities or auto-assembly, polymers and surfactants, or hybrid and nano-materials (6 ECTS)
- › Computational chemistry or energy, communication and information (6 ECTS)
- › Research project / English (6 ECTS)
- › Professional project (6 ECTS)
- › Master thesis / internship in one of the universities of the consortium (24 ECTS)

How to apply?

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

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:

- › Cédric Crespos
+33 (0)5 40 00 63 10
cedric.crespos@u-bordeaux.fr

More information:

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

Advanced Materials

Program factsheet

Admission requirements

Candidates must fulfill the following:

- › Hold a Bachelor degree with honors or 3-year / 180 ECTS equivalent in chemistry, physical chemistry or materials science.

Level

- › Master degree in Chemistry

Program duration

- › 2 years (120 ECTS)

Language requirements

A good level of English is required:

- › IELTS score around 6.5; TOEFL score 79-93; minimal TOEIC score 900
- › Students with lower marks may be considered.

Fees / budget

- › University registration fees : 400€
- › Some grants are available for selected students, which cover tuition fees and also include funds for everyday life: 8,000 € for Master Year 1 / 5,000 € for Master Year 2.

Program outline

The aim of this Master program is to provide students with a complete training in the domain of Chemistry and Physical Chemistry of Materials, starting from the stage of conception, synthesis and elaboration, to physico-chemical characterizations, and their use for specific functions and applications.

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

The University of Bordeaux was recently identified as a **Campus of Excellence** for the field of Materials.

Strengths

- › Students develop skills based on the large range of materials topics studied in the University of Bordeaux campus laboratory: inorganic materials, colloids, polymers, hybrid and composite materials etc...
- › Students are trained and equipped to enter both academic (fundamental research) or industrial (more applied research) fields. Whatever their profile, upon completion of their studies, they master a high level of skills in materials science.
- › Students have the opportunity to test and apply their skills during two training periods occurring in Year 1 (two months) and Year 2 (six months) of the Master. These training periods most often take place in the chemistry labs (eight in total) located on the Bordeaux campus but other opportunities are available and may arise in other academic or industrial laboratories.

Program structure

All teaching modules (Master Year 1 and 2) are open to non-francophone students.

Year 1

Semester 1:

Teaching is divided into two semesters which include five modules of 6 ECTS each:

- › Chemical bonding (6 ECTS)
- › Characterization techniques (6 ECTS)
- › Structural analysis of solids and surfaces (6 ECTS)
- › Introduction to colloids and polymer science (6 ECTS)
- › Elaboration of inorganic materials (6 ECTS)

Semester 2:

- › English/French dedicated courses (3 ECTS)
- › Training period (two months), generally within the Bordeaux campus labs. Training periods in industrial labs or any other chemistry labs (in France or abroad) are permitted if opportunities arise (2 ECTS)
- › Conference series held by different lab directors on campus (1 ECTS)
- › Solid state physics (6 ECTS)
- › Mechanical behaviour from fluids to solids (6 ECTS)

Students must choose two modules from the following options:

- › Transformations (6 ECTS)
- › Physical chemistry of polymer solutions (6 ECTS)
- › Phase transitions and phase diagrams (6 ECTS)
- › Macromolecular chemistry (6 ECTS)

Year 2

Semester 1:

The first semester offers several teaching modules.

Students must choose four modules from the following six:

- › Innovative and composite materials (6 ECTS)
- › Material dielectric and magnetic properties (6 ECTS)
- › Self-assembly in surfactant and polymer solutions (6 ECTS)
- › Photonics, laser and imaging (6 ECTS)
- › Latex and emulsions (6 ECTS)
- › Energy, communication and information (6 ECTS)

Students must also choose two modules from the following options:

- › English or French tutorials (3 ECTS)
- › Project management (3 ECTS)
- › Entrepreneurship (3 ECTS)

Semester 2:

- › Six month training period in academic or industrial laboratories

How to apply?

Please send your CV and Bachelor degree certificate (including your grades) to:

› corinne.jalibert@u-bordeaux.fr
(Corinne Jalibert)

with a copy to :

› mondain@crpp-bordeaux.cnrs.fr
(Prof. Olivier Mondain-Monval) and

› francis.rebillat@u-bordeaux.fr
(Prof. Francis Rebillat)

A special committee examines the candidate CVs.

And after?

- › Master students with good marks may apply for PhD applications in chemistry labs. The local labs offer many opportunities with funding included from various agencies. After a PhD, the majority of our students find employment in the R&D department of chemical companies of various sizes.
- › Master students who do not wish to apply for a PhD have a suitable profile for engineering positions in companies.

Contacts

› Prof. Olivier Mondain-Monval:
mondain@crpp-bordeaux.cnrs.fr

› Prof. Francis Rebillat:
francis.rebillat@u-bordeaux.fr

More information:

www.u-bordeaux.com/Education/International-Study/Programs/Science-and-Technology

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 level equivalent to the TOEFL score of 550/213/79-80 or IELTS score of 6.0.

Level

International Master.

Program duration

1 year (60 ECTS).

Tuition fees

3000€ including social security and health insurance.

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

- › Scientific conferences (COS)
(3 ECTS) - Compulsory
- › Industrial Systems Modelling (IMO)
(6 ECTS) - Compulsory
- › Industrial Systems Management (IMA)
(6 ECTS) - Compulsory
- › Industrial Performance Mastery (IPM)
(3 ECTS) - Compulsory
- › Industrial Systems Integration and Information System (III)
(6 ECTS) - Compulsory
- › Supply Chains and Continuous Improvement (SCI)
(6 ECTS) - Compulsory

Semester 2

JANUARY TO JULY

- › Project (PRO)
(9 ECTS) - Compulsory
- › Internship in academic laboratory or company (STA)
(21 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.

Contacts

David CHEN (Professor, head of the program)
david.chen@ims-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-etrangers/Licence-et-Master>

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.

More information:

www.u-bordeaux.com

ALGANT: Algebra, Geometry and Number Theory



Program factsheet

Academic cooperation

Part of the ALGANT network (consortium of 10 universities):

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

Admission requirements

Candidates must fulfill the following requirements:

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

Program duration

2 years (120 ECTS).

Level

Double/multiple Master degree of Science in Mathematics.

Language requirements

A good level of English is required.

Scholarships

- › Scholarships are available for the mobility period.

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.

Strengths

- › Courses given by academic experts within the field of mathematics.
- › Individually tailored study tracks.
- › Top-quality scientific environment and facilities provided by leading global research institutes, e.g. Institut de Mathématiques de Bordeaux.
- › Supported by the IdEx - International Master program of the Bordeaux Excellence Initiative.

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).

The ALGANT program in Bordeaux is structured as follows:

Year 1

Note: courses are taught in French.

SEMESTER 1

- › Analyse fonctionnelle (6 ECTS)
- › Théorie des groupes (6 ECTS)
- › Modules et espaces quadratiques (6 ECTS)
- › Analyse complexe (6 ECTS)
- › Objets fondamentaux (6 ECTS)
- › Théorie de l'information (6 ECTS)
- › Arithmétique (6 ECTS)

SEMESTER 2

- › Théorie des nombres (9 ECTS)
- › Géométrie (9 ECTS)
- › Algèbre et calcul formel (6 ECTS)
- › Probabilités et statistiques 1 (6 ECTS)
- › Cryptologie (6 ECTS)
- › Courbes elliptiques (6 ECTS)
- › Language course (3 ECTS)
- › Research project (3 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 1 (6 ECTS)
- › Algorithmic number theory 1 (6 ECTS)
- › Geometry 1 (6 ECTS)
- › Analysis 1 (6 ECTS)
- › Algant 0 (6 ECTS)

SEMESTER 2

- › Number theory 2 (6 ECTS)
- › Geometry 2 (6 ECTS)
- › Analysis 2 (6 ECTS)
- › Algant 1 (6 ECTS)
- › Algant 2 (6 ECTS)
- › Master thesis / Internship (30 ECTS)

How to apply?

Applications may be completed on-line:

› <http://emundus-maths.univ-bordeaux.fr/>

Contacts

General Coordinator:

Peter Stevenhagen, Leiden University

Coordinator of ALGANT-Bordeaux:

Christine Bachoc

Contact for application and further information:

masterALGANT@math.u-bordeaux1.fr

And after?

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

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

More information:

www.u-bordeaux.com

www.algant.eu

Algebra, Geometry and Number Theory (ALGANT-DOC)

Program factsheet

Academic cooperation

Part of the ALGANT network (consortium of 10 universities):

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

Admission requirements

Candidates must have:

- › An academic Master degree (minimum 5 years) in a mathematics program.

Level

Double/multiple Doctoral degree in Mathematics.

Language requirements

The teaching language is 100% English.

- › Thorough proficiency in English is required and must be proven.

Program duration

3 years (180 ECTS).

Tuition fees

Fees are calculated according to the national/university rules.

Program outline

The ALGANT-DOC doctoral program, set up by the ALGANT consortium, is a collaborative scheme creating ideal conditions for the production of high level research in pure mathematics. It leads to a double and/or joint doctoral degree, prepared under joint supervision at a minimum of two partner institutions.

Strengths

- › ALGANT consortium supervisors are very active within the field of research. Doctoral candidates thus profit from their many connections with research centers throughout the world.
- › Candidates are awarded a double or joint nationally recognized doctorate degree.

How to apply?

Online application through the ALGANT consortium website.

Places are announced during the Fall period every year.

- › www.algant.eu

And after?

With ALGANT-DOC, the doctoral candidates will acquire the expertise and skills needed to pursue a career at the highest academic level.

Contacts

Program coordinators

Prof. Boas Erez and Prof. Vincent Koziarz

Email: doctoratealgant@math.u-bordeaux1.fr

More information:

www.algant.eu
www.u-bordeaux.com

International Doctoral School – Functional Materials for Energy, Information Technology and Health (IDS-FUNMAT)

Program factsheet

Academic cooperation

Consortium of 9 universities:

- › **Belgium:** Université Catholique Louvain, Université de Liège.
- › **Canada:** University of Waterloo.
- › **France:** Institut Polytechnique de Grenoble, Université de Ceu Basse-Normandie, Université Pierre et Marie Curie Paris, University of Bordeaux.
- › **Germany:** Technische Universität Darmstadt.
- › **Portugal:** Instituto Superior Tecnico Lisbon.
- › **European Multifunctional Materials Institute (EMMI)** www.emmi-materials.eu

Level

Double doctoral degree in Functional Materials.

Admission requirements

Candidates must have:

- › A Master in material science or physical chemistry / chemistry / engineering with a speciality in the field of materials.

Language requirements

The teaching language is 100% English.

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

Program outline

The IDS FunMat program is an international, high-quality doctorate in Functional Materials covering the domains of energy, information, technology and health.

This program is built upon the expertise of nine universities, leaders in the field, and 17 associated partners (companies, research governments and organizations, and training consultancies).

Program duration

3 or 4 years (180 or 240 ECTS).

Tuition fees

Erasmus Mundus scholarship holders

- › The fellow receives a living allowance (salary) on a monthly basis according to the conditions laid down in the employment contract (2,800€/month gross salary).
- › He/she is hired by the home institute (where the research project is mainly conducted).
- › Depending on their nationality, PhD candidates may obtain a travel allowance:
 - › Non-European students, not eligible for the 12-month rule: 7,500€
 - › European students in the case the research project includes mobility in a third country: 3,000€
- › No fee is required from the doctoral candidate with an Erasmus Mundus fellowship.
- › The departments in which the doctoral candidate performs his/her research also cover expenditures related to the candidate's research activity.

Non-scholarship holders

- › The amount of the gross salary will depend on the funding (scholarships from the partner institutions and from local authorities).

The consortium provide a large scope of research projects (34 laboratories involved), and includes international mobility and the participation of industry players.

Program structure

Each PhD is carried out in co-supervision between universities from two different countries. For most projects, an industry partner is also involved. The PhD candidates must spend at least six months in each university.

The common elements of all projects are:

- › International and intersectoral mobility: each project is co-supervised by two universities from different countries (see "Academic cooperation"), and the candidate must spend at least six months in each university.
- › Involvement of projects with industry. Most projects also have an industry partner, and interaction and collaboration with industry is a requirement.
- › Duration of the PhD projects should be three years, the maximum duration is four years.
- › Participation of candidates in an annual joint training school. This school lasts five to six days, and covers both scientific training and "transferable skills" such as Project Management, Intellectual Property Rights, Presentation Techniques etc.
- › Preparation of an annual laboratory seminar and short written report.
- › Submission of one or more scientific publications in refereed journals.
- › Participation in an international scientific conference with an oral or poster presentation by the candidate.

The PhD degree is finally obtained with the submission of a thesis, and an oral presentation before a committee, both delivered in the English language.

Strengths

- › International high-quality doctorate program.
- › International mobility.
- › Participation of key industrial players.

How to apply?

Online application:

- › www.idsfunmat.u-bordeaux1.fr

And after?

After completion of this PhD, graduates may start working as scientists in universities, research centers and R&D units within companies.

Contacts

Laurent Servant: laurent.servant@u-bordeaux.fr

Audrey Sidobre: audrey.sidobre@u-bordeaux.fr

More information:

www.idsfunmat.u-bordeaux1.fr
www.u-bordeaux.com

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 di Verona
- › Netherlands: Erasmus Universitair Medisch Centrum Rotterdam, Universiteit Utrecht
- › Spain: Universitat Autònoma de Barcelona
- › United Kingdom: University of Hertfordshire

REGULATORY PARTNERS:

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

INDUSTRIAL PARTNERS

- › Belgium: Amgen, Janssen Pharmaceutica, UCB Pharma
- › Denmark: Novo Nordisk, Lundbeck
- › Finland: Orion Corporation
- › France: Sanofi-Aventis Recherche & Développement
- › Germany: Bayer Pharma, Boehringer Ingelheim International
- › Spain: Almirall
- › Sweden: AstraZeneca
- › Switzerland: Hoffmann-La Roche AG, Novartis Pharma
- › United Kingdom: Eli Lilly, GlaxoSmithKline Research and Development

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.

Level

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

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>).

Program duration

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

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.

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

Master Year 1

60 ECTS credits

- › 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).

Master Year 2

60 ECTS credits

- › 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!
- › 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.
- › Research projects may be performed in public or private environments.
- › Increasing worldwide recognition for the Eu2P program as an excellent employment opportunity and also a way of improving regulatory sciences.

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**.

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 withdrawals 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.

Contact

PROGRAM MANAGER:

Dr. Karine Palin

eu2p.office@eu2p.org

More information:

www.eu2p.org

www.u-bordeaux.com

Analytical Chemistry for Drugs and Natural Products



Program factsheet

Academic cooperation

Consortium of two partner universities:

- › France: University of Bordeaux
- › Morocco: Mohamed V University - Rabat

Admission requirements

Candidates must fulfill the following requirement:

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

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

- › Standard university registration fees (200 - 400€)
- › Scholarships: Erasmus Mundus Act. 2, partnerships (students), University of Bordeaux Initiative of Excellence, Aquimob

Program outline

This second year Master degree allows students to deepen their theoretical and practical knowledge in the field of analytical 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

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 (3 ECTS)
- › Drug design & pharmaceutical technology for drugs and natural products (3 ECTS)
- › Quality control applied to drugs (3 ECTS)

- › Research and analytical development (3 ECTS)
- › English & communication skills (3 ECTS)
- › Quality by Design & Chemometry (3 ECTS)

Education units in Rabat-Morocco

- › Project management: drug control and natural products (9 ECTS)

Semester 2

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

Strengths

- › Permits students from pharmacy and other specialties to acquire strong skills in analytical chemistry for drugs and natural products.
- › Develops global knowledge about analytical and regulatory problems related to counterfeit drugs and health products.
- › Includes "hands-on" qualification training for key techniques using the latest equipment from the university laboratories for chemical and structural analysis.

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.

Contact

Program Coordinator: Dr Boutayna Rhourri-Frih
boutayna.frih@u-bordeaux.fr
+33 (0) 5 57 57 46 86 / +33 (0) 5 57 57 56 21

How to apply?

Students may apply online:

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

Bio-Imaging

Program factsheet

Cooperation

ACADEMIC PARTNERS:

- › University of Bordeaux, University of Bordeaux Hospital (France).
- › Université Laval, Quebec (Canada).
- › Mons University, Mons (Belgium).

INDUSTRIAL PARTNERS

- › Leica, Agfa, Explora Nova, IGT, General Electrics, Toshiba, Brucker, Siemens, Philips.

Tuition fees

Annual tuition fees for EU / non EU students:

- › Approximately 400€ per year (including social security and civil liability insurance).

Admission requirements

Candidates must fulfill the following requirements:

- › Hold a BSc or equivalent degree (180 ECTS), in biology, chemistry, biochemistry, physics, pharmacy or biomedical sciences. Students from engineering sciences are also encouraged to apply.

Language requirements

Courses are taught in English. Candidates should have a reasonable level of English.

Program duration

2 years (4 semesters, 120 ECTS).

Level

Master degree.

Program outline

The International Master in Bio-Imaging at the University of Bordeaux offers a comprehensive and multidisciplinary academic program in cellular and biomedical imaging, from molecules and cells to entire animals and humans.

Built on the research expertise of the researchers at the University of Bordeaux, this Master program provides excellent training opportunities in advanced bio-imaging methods and concepts to understand (patho)-physiological processes through the vertical integration of molecular, cellular and systems approaches and analyses.

Students receive intense and coordinated training in bio-imaging, combining a mix of theoretical and practical aspects. They acquire scientific and technological knowledge and experience in the main imaging techniques used in biomedical research and practice.

Strengths

- › Teaching courses from academic and professional experts (industry).
- › Access to leading research labs and advanced core facilities.
- › Practice of a wide range of applications, from molecular and cell biology and neuroscience to biomedical instrumentation, maintenance and service.
- › Supported by the Laboratories of Excellence (LabEx) BRAIN (Bordeaux Cellular Neuroscience) and TRAIL (Translational Research and Biomedical Imaging).
- › English language instruction.
- › Possibility of international secondment.

Program structure

- › **Semesters 1 and 2:** acquisition of general knowledge in the field (courses and laboratory training)
- › **Semester 3:** track specialization in Cellular or Bio-Medical imaging (courses)
- › **Semester 4:** internship in academic laboratory / industrial partners

Semester 1

- › Experimental approaches in biology (6 ECTS)
- › English/French as a foreign language (3 ECTS)
- › Tutored project (3 ECTS)
- › Elements of mathematics and physics for bio-imaging (9 ECTS)
- › Modelling and computer simulation of biological processes (9 ECTS)

Semester 2

- › From molecule to human: imaging patho-physiological mechanisms (9 ECTS)
- › Initiation to Research & Development (12 ECTS)
- › Detection systems for bio-imaging (AFM, fluorescence, contrast agents) (9 ECTS)

Semester 3

- › Conceptualization and communication of a research and development project (9 ECTS)
- › Introduction to the private sector (3 ECTS)

Track 1: Cellular imaging (18 ECTS)

- › Principles of microscopy (compulsory) (6 ECTS)
- › Dynamic imaging: global measurement and single molecule (compulsory) (6 ECTS)
- › Nonlinear optical imaging (optional) (3 ECTS)
- › Dynamics of cellular mechanisms (optional) (3 ECTS)
- › Physics and chemistry of markers and biosensors (optional) (3 ECTS)
- › Visualization and exploration of 3D data, programming techniques (optional) (3 ECTS)

Track 2: Bio-medical imaging (18 ECTS)

- › MRI (compulsory) (6 ECTS)
- › Ionizing radiation imaging (compulsory) (6 ECTS)
- › Ultrasound imaging (optional) (3 ECTS)
- › Multimodal imaging (optional) (3 ECTS)
- › Visualization and exploration of 3D data, programming techniques (optional) (3 ECTS)

Semester 3

- › Research and development thesis project (30 ECTS)

How to apply?

The application form may be downloaded from the University of Bordeaux website:

- › www.u-bordeaux.fr

Once completed, please send the form to:

- › Cyril Lançon: cyril.lancon@u-bordeaux.fr

Contact

COORDINATORS:

- › **Prof. Valentin Nägerl:** valentin.nagerl@u-bordeaux.fr
- › **Prof. Eric Thiaudière:** eric.thiaudiere@u-bordeaux.fr

Faculty/Department: Faculty of Life Science, University of Bordeaux

ADMINISTRATIVE COORDINATORS:

- › **Cyril Lançon:** +33 (0)5 57 57 47 48 / 48 27

And after?

Graduates will be qualified in the following domains of expertise:

- › Mastering theoretical concepts and practical know-how of main bio-imaging techniques.
- › Knowing the application and limits of different bio-imaging methods.
- › Identifying and manipulating biological targets with bio-imaging tools.
- › Ability to conceive, design and conduct independent research project in bio-imaging.

Potential career opportunities include: researcher, service engineer, application scientist, bio-medical engineer, sales engineer, healthcare executive.

More information:

www.u-bordeaux.com

Biology Agrosciences (B2AS)

Program factsheet

Academic cooperation

Collaboration with:

- › Ecole Nationale Supérieure des Sciences Agronomiques (France)
- › University of Tsukuba (Japan)
- › Hangzhou Normal University (China)
- › National Taiwan University (Taiwan)
- › Pontifical Catholic University of Chile (Chile)
- › University of Cincinnati (USA)

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 and/or biochemistry.

Program outline

The Bordeaux Biology AgroSciences Master (B2AS) Master is part of the University of Bordeaux Master program and is developed with the support of the French National Institute for Agronomy (INRA) 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, 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 within the chosen field of biotechnology and plant breeding for agriculture improvements.

Level

Master degree (Year 2).

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.

Strengths

During their studies, students will:

- › Acquire scientific knowledge in various fields of plant biology, 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.

Plant development and reproduction (3 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 (3 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.

Biotechnonology (3 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 (3 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 (3 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.

Quantitative and population genetics and evolution (3 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.

Semester 2

Laboratory practice (6 months / 30 ECTS)

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

And after?

The objectives of the B2AS program are to prepare students for further study via PhD programs and/or careers in the food and agronomy 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
- › Agro-chemical companies
- › Green and white biotechnology companies
- › Food, diet and nutrition companies
- › Plant medicinal production companies
- › Food supplement or nutraceutical companies
- › Pharmaceutical companies
- › Business trade companies

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. M. Hernould:

- › hernould@bordeaux.inra.fr

Contact

PROGRAM COORDINATOR:

Michel Hernould: hernould@bordeaux.inra.fr

PATHWAY PROGRAM COORDINATORS:

- › philippe.gallusci@bordeaux.inra.fr
- › rolin@bordeaux.inra.fr
- › valerie.schurdi-levraud@u-bordeaux.fr

More information:

<http://www.master-bio-agro-bordeaux.com/>

Neuroscience

Program factsheet

Academic cooperation

Collaboration with:

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

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.
- › Candidates with a Bachelor's degree in another subject (chemistry, physics, maths, computer science) must provide documented interest in the field of Neuroscience.
- › Excellent grades are expected.

Level

Master degree.

Language requirements

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

Program duration

2 years (120 ECTS).

Tuition fees

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

Scholarships

In addition to Aquimob mobility scholarships, students may apply for NeuroBIM (Bordeaux International Master of Neuroscience) IdEx grants.

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 (www.bordeaux-neurocampus.fr). 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.

Program structure

International mobility is highly recommended for at least one of the two traineeships. Mobility fellowships are provided upon application.

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, Development & Neurogenetics (4 ECTS)
- › Neuropharmacology (4 ECTS)
- › Higher Brain Functions (4 ECTS)

SEMESTER 2: January–June (30 ECTS)

- › Laboratory Internship

Year 2

SEMESTER 3: September – January (30 ECTS)

Compulsory courses

- › Research Project Literature Survey & Methodology (9 ECTS)
- › Industrial Research (3 ECTS)

Optional courses

- › Cellular and Molecular Neurobiology (6 ECTS)
- › Cognitive Neuroscience (6 ECTS)
- › Pathophysiology of Neurological & Psychiatric Diseases (6 ECTS)
- › Neural Networks (6 ECTS)
- › Addiction (6 ECTS)
- › Experimentation in Behavioural Studies (6 ECTS)
- › Pharmacology of Psychotropic Drugs (6 ECTS)

SEMESTER 4: January–June (30 ECTS)

- › Master Thesis Project

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.

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.

How to apply?

Master / Year 1:

- › French & foreign students, consult the website:
www.bordeaux-neurosciences-master.univ-bordeauxsegalen.fr

Master / Year 2:

- › French students, through the Apoflux platform (University of Bordeaux)
- › Foreign students, consult the website:
www.u-bordeaux.com/Studying/Applying-Registering/Outside-an-Exchange-Program

Contact

COORDINATORS:

Professor Daniel Voisin: daniel.voisin@u-bordeaux.fr

Professor Jacques Micheau: jacques.micheau@u-bordeaux.fr

More information:

www.u-bordeaux.com

Neuroscience (Neurasmus)



Program factsheet

Academic cooperation

Collaboration with six partner universities:

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

Four associated members:

- › Belgium: Janssen (Johnson & Johnson)
- › France: Fluofarma, Regional Council of Aquitaine
- › Netherlands: Synaptologics BV

Program duration

2 years (120 ECTS).

Tuition fees

- › Available scholarships: Erasmus Mundus Master Course student scholarships
- › Self-funded non-European students: 4,000€ per semester (16,000€ for the 2 year-program)
- › Self-funded European students: 2,000€ per semester (8,000€ for the 2 year-program)

Program outline

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 neurogenetics and neurogenomics, cellular and molecular neurobiology, neurophysiology, neurophotronics, physiology and pathophysiology of neural plasticity, to medical neurosciences.

The Neurasmus program is an Erasmus Mundus Master course developed under Action 1.

Level

Double / multiple MSc in Neuroscience.

A Neurasmus joint diploma supplement is additionally awarded by the consortium.

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.

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 certificates (see below).
- › 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.

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.

Program structure

At the application stage, students choose the main track they want to go through, which defines first year mobility.

- › Track 1: Neurobiology and Neurogenetics (120 ECTS)
- › Track 2: Cellular and Molecular Neurobiology (120 ECTS)
- › Track 3: Neurophysiology (150 ECTS)
- › Track 4: Neurobiology and Neuropathology (120 ECTS)
- › Track 5: Neuroimaging (120 ECTS)
- › Track 6: Neural Plasticity (120 ECTS)

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

Semester 1 and 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.

Semester 3

Advanced courses

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

Semester 4

Master Thesis

Students complete a six month research project or industrial placement leading to a Master Thesis (30 ECTS). It takes place in a location defined according to the Personal Training Plan. This location must be chosen in collaboration with the affiliated partner university.

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.

Contact

COORDINATION OFFICE

Program Coordinator: Prof. Agnès Nadjar

Administrative Manager: Florina Camarasu
neurasmus@u-bordeaux.fr

Neurasmus Application Helpdesk

All questions linked to the application process (help with the online application form, inquiries about admission & eligibility criteria, etc.) must be addressed to:

neurasmus-application@u-bordeaux.fr

How to apply?

Students may apply online:

- › <http://emundus-neurasmus.univ-bordeaux.fr>

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.

More information:

www.neurasmus.u-bordeaux2.fr

www.u-bordeaux.com

Neuroscience and Biotechnology Euro-Mediterranean program (ISIS)



Program factsheet

Cooperation

UNIVERSITIES IN EURO-MEDITERRANEAN COUNTRIES:

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

Level

Master degree.

Program duration

2 years (4 semesters, 120 ECTS).

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.

Language requirements

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

Tuition fees

Annual tuition fees for EU / non EU students:

- › According to the student's home university.

Program outline

This Euro-Mediterranean Master program, specialized in Neurobiology and Biotechnology, follows the European system of postgraduate studies with equivalent credit value. The courses and evaluation procedure are identical within all partner universities.

High-level, innovative and 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 will also master the competencies necessary to implement modern techniques and manage complex, experimental set-ups.

Throughout their study and training, students will develop connections and network across Europe and the Mediterranean region.



Erasmus+

Note: the Master program is supported by an Erasmus+ European grant within the Strategic Partnership program as well as a grant from the Bordeaux Initiative of Excellence.

Program structure

This Master program covers a wide range of subjects from cellular to integrative physiology and behavioral neuroscience:

Semesters 1 and 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

Semester 3

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 4

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 ISIS consortium members, hosting labs are located in many countries worldwide including Germany, USA, Canada, Brazil, Australia, etc.

Strengths

- › International curriculum with identical core courses.
- › Open to students following initial training and lifelong learning methods.
- › Continuous development of well-adapted e-learning tools, favoring student autonomy.
- › 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.

Contact

PROGRAM COORDINATOR:

- › Prof. Marc Landry: marc.landry@u-bordeaux.fr

How to apply?

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

Candidates should send their files to:

- › Prof. Marc Landry: marc.landry@u-bordeaux.fr
- › assistance.inscription@u-bordeaux.fr

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.

More information:

<http://www.e-masters.univ-bordeaux.fr>

European Neuroscience Campus (ENC) Network

Program factsheet

Academic cooperation

Consortium of five universities:

COORDINATOR:

- › Netherlands: Universiteit Vrije Amsterdam (Neuroscience Campus Amsterdam).

PARTNERS:

- › France: University of Bordeaux, Bordeaux Neurocampus.
- › Germany: European Neuroscience Institute Göttingen.
- › Portugal: Center for Neuroscience and Cell Biology Coimbra.
- › Switzerland: Neuroscience Center Zürich.

Level

Double PhD degree in Neurosciences following the signature of a cotutelle (joint doctorate) agreement.

Tuition fees

The Erasmus Mundus student fellowship is composed of three amounts:

- › Living allowance (salary)
- › Travel
 - › Category A: Students (non European): 7,500€
 - › Category B: Students (European): 3,000€, only if the student is on mobility in a third country.
- › Laboratory costs: 600€/month.

Program outline

The ENC joint PhD program is a PhD training that generates opportunities for early stage investigation in the field of Neurosciences. The strategic objectives of the ENC program are to provide research-training by:

- › Focusing on a basic understanding of brain disease mechanisms.
- › Developing the knowledge base, tools and resources needed to decipher the function of genes and gene products, cellular processes and neuronal networks and relevant to human health.

Program duration

3 years (36 months / 350 hours minimum).

Admission requirements

Candidates are selected on the basis of four criteria:

- › Cover letter.
- › Excellent study-results (top 10% scores) during Bachelor and Master studies.
- › Written letters of recommendation from previous or current supervisors.
- › Formal interview (and short presentation) will be included in the selection procedure.

Students with a biomedical or psychology background should have at least two years of training at Master level, and preferably a strong background in the field of experimental or preclinical Neurosciences.

Applicants with background in the following related fields will also be considered: biomedical sciences, biological psychology, genetics, medicine, biophysics, bioinformatics and/or artificial intelligence.

Language requirements

- › English: certified proof of language test results (i.e. TOEFL minimum score of 237 (computer based), 580 (paper-based) or 92-93 (internet-based) or IELTS minimal average score of 6.5 without any category below).

- › Establishing bilateral translational links between laboratory and clinics (and vice versa).

With this objective in mind, five home institutes with a long and established track record in PhD training in the field of molecular, cellular and integrative Neurosciences have set up a European Neuroscience Campus Network (ENC Network).

Program structure

Neuroscience specialization and training in academic skills

The Erasmus Mundus Joint Doctorate (EMJD) – consortium ENC Network has developed a balanced three year joint PhD curriculum for the EMJD candidates, comprising both advanced neuroscience specialization courses, as well as higher level training in academic skills (writing scientific papers and grant proposals, presentation techniques for various audiences, language courses).

The curriculum covers newly developed ENC-Network courses, advanced method workshops, annual meetings etc. It is otherwise composed of aspects of the international oriented local PhD programs of the ENC Institutes.

Personal Training Plan

The EMJD fellow will make an Personal Training Plan together with two supervisors at the start of his/her PhD, providing the opportunity to create an individual profile based on specific interests linked to the candidates own research topic.

This tailor made program should be approved by the consortium's Board of Education ensuring full recognition for all the training activities of the candidates.

The Personal Training Plan will be reviewed each year by the candidate together with the candidate's supervisor and will be adjusted when necessary.

Original research

The essence of the ENC Network joint PhD program is training through original research. However, the first year of the joint curriculum starts off with an ENC Network Kick-Off meeting followed by the ENC Network introduction course bringing all candidates and affiliated PhD supervisors – as teaching staff – together at one of the host campuses of the ENC Network.

Each year, this meeting will be organized in a different city (from the second year onwards by the students themselves, i.e. by the generation of students entering their second Erasmus Mundus year). In addition, students are trained during mandatory advanced methods courses, as well as during mandatory academic skills courses.

Strengths

The key training objectives of the ENC Network are:

- › Scientific training with innovative and multidisciplinary brain research methodology.
- › Advanced technology courses.
- › Training through original research aimed at the translation from bedside-to-bench and from bench-to-bedside.
- › Academic skills training.
- › Training in technology transfer methods.

Contact

COORDINATOR ENC NETWORK

Maaïke Leusden

+ 31 20 598 7037

maaïke.leusden@neurosciencecampus-amsterdam.nl

B4 Wing – Science Building (FALW)

Room B527

De Boelelaan 1085

1081 HV Amsterdam

Netherlands

How to apply?

Since 2014, new doctoral programs are selected under the Marie Skłodowska-Curie Actions, which form part of the EU's Horizon 2020 program for research and innovation.

For more information, please contact directly the coordinator of the program.

And after?

- › The ENC Network provides a solid basis for successful European post-doctoral exchanges. Researchers may continue with their research in post-doctoral positions. They are also very well qualified to find work in research companies.

More information:

www.enc-network.eu

www.u-bordeaux.com

Business and Science in Vineyard & Winery Management



Program factsheet

Academic cooperation

Collaboration between:

- › Institut des Sciences de la Vigne et du Vin (ISVV)
- › University of Bordeaux
- › Bordeaux Sciences Agro (BSA)
- › Kedge Business School

Level

Master of Business and Science degree.

Language requirements

Working proficiency of English (language certificates are not required. Language proficiency will however be verified during a Skype interview).

Program duration

- › 2 years, 120 ECTS (four semesters, 30 ECTS/semester).

Admission requirements

Candidates must fulfill the following requirements:

Hold an undergraduate degree, 3 years minimum (i.e. Bachelor degree, or the equivalent), from an accredited college or university, in a closely related field:

- › Business, Management and Economy, Administration, Marketing, Accounting and Finance, Agronomy / Agricultural Sciences, Food /Plant Sciences and Technologies.

Tuition fees

The tuition fees for the Master degree are 10,000 € (per year), to be paid annually. These fees include: registration and general administrative costs, classes and travel costs for study visits.

Occasionally, BSA offers scholarships to talented and motivated candidates. Selection is based on academic excellence for those unable to pay the full price of the Master Program enrollment and tuition fees.

Program outline

The Master of Business and Science in Vineyard & Winery Management provides training in response to new market demands for wine industry professionals who have both technical (viticulture and oenology) and entrepreneurial (business management) skill sets.

The program is designed to further the student's knowledge in business management, viticulture, and oenology. It seeks to complement the knowledge base through an individually structured and flexible curriculum. In an industry that is increasingly competitive, the integration of these skill sets within a company is essential for success.

Program structure

The study program focuses on three main thematic areas:

Business Management

Design and implement a business plan, i.e. operating statement, choice of actions, etc. Structure the legal and/or financial framework of the project. Strategically set priorities and monitor accomplishment of business objectives.

Vineyard Management and Wine Production

Analyze the interactions between soil/climate/plant. Manage the vineyard from plantation to harvest. Understand the science based fundamentals of terroir, choice of plant material, and canopy management through practical experience. Acquire and develop knowledge of oenology and winery technology. Conduct winery evaluations focused on aligning wine production with commercial objectives. Enhance tasting ability and sensory evaluation.

Commercialization

Establish a product price according to economical and technical criteria. Conduct commercial analyses. Hold a cost accounting. Calculate and analyze costs.

Contacts

PROGRAM COORDINATOR:

Guilherme Martins

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+33 (0)5 57 35 86 20

Malika Goudet

malika.goudet@agro-bordeaux.fr
+33 (0)5 57 35 07 42

More information:

www.agro-bordeaux.fr
www.u-bordeaux.com

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).

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 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: Rovira i Virgili University (Tarragona, Spain), the University of Porto (Portugal) and the University of Bordeaux (France).

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

Program structure

The academic program is structured over two year (four semesters) with 120 ECTS. The first three semesters are each carried out in one university (30 ECTS at URV, 30 ECTS at UP, 30 ECTS at UBx) and the last semester is devoted to the Master thesis and the professional internship, which is completed with one of the associated partners.

	Optional subjects	Wine tourism	Wine-making	Wine heritage
Semester 1 (URV)	<ul style="list-style-type: none">› Adaptation of oenology (6 ECTS)› Adaptation to geography & economy (6 ECTS)	<ul style="list-style-type: none">› Leisure and marketing (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">› Wine heritage & tourism 1 (6 ECTS)
Semester 2 (UBx)		<ul style="list-style-type: none">› Management of wine tourism firms and entrepreneurship (6 ECTS)› ICT & wine tourism - Oenotourism 2.0 (6 ECTS)	<ul style="list-style-type: none">› Wine appellations knowledge, food and service, tasting (6 ECTS)› Aged & sweet wine production (6 ECTS)	<ul style="list-style-type: none">› Wine heritage & tourism 2 (6 ECTS)
Semester 3 (UP)		<ul style="list-style-type: none">› Marketing & oenotourism for festive seasons and overall consumer perspectives (6 ECTS)	<ul style="list-style-type: none">› Practical wine-making (12 ECTS)› Fortified wine production (6 ECTS)	<ul style="list-style-type: none">› Wine heritage & tourism 3 (6 ECTS)
Semester 4	Professional internship and Master thesis (30 ECTS)			

Strengths

Students develop the following skills:

- › 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.

How to apply?

Consult the website: www.wintour-master.eu/apply/en_index/
Selection is based on the following criteria:

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

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

WINTOUR SECRETARY:

- › master.wintour@urv.cat

And after?

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

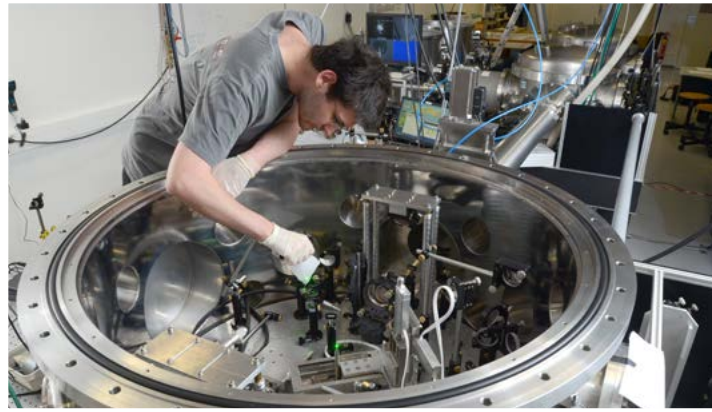
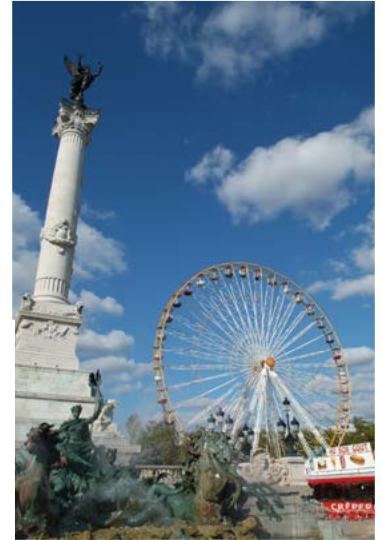
- › **Private sector**: creation of start-ups and business initiatives with a focus on wine as a tourist attraction and tourism as a means for promoting wine and wine regions; development of international marketing strategies, wine tourism activities of companies within the wine industry; specialized 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.

Keep in mind!

- › Maximum number of students: 25
- › Inscriptions open as of November 15th 2016 (for the academic years 2017/2019)

More information:

www.wintour-master.eu/en_index/





Bordeaux

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- › Part of the **UNESCO World Heritage List**, described as "an outstanding urban and architectural ensemble".
- › **A dynamic metropolis**, blessed with a particularly prestigious historical and cultural heritage. It is classified as "City of Art and History".
- › **The wine capital of the world** with around 10,000 wine-producing châteaux.
- › Less than an hour from the Atlantic Ocean, thus enjoying a **mild oceanic climate and rich natural surroundings**.



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More information:

www.u-bordeaux.com

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33405 Talence Cedex
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