Eu2P
EUROPEAN PROGRAMME IN
PHARMACOVIGILANCE AND
PHARMAEOPIDEMIOLOGY

BOOST YOUR CAREER
WITH THE BEST ONLINE TRAINING
IN PHARMACOVIGILANCE AND PHARMAEOPIDEMIOLOGY

INFORMATION AND APPLICATION
WWW.Eu2P.ORG
Discover the Eu2P programme

Choose the Eu2P online and on-the-job training

Make the most of a training designed by the Eu2P public-private partnership

Find the Eu2P course that fits your real needs

Gain rapid and accurate expertise through the Eu2P short courses

Improve your professional competencies through the Eu2P academic Certificate diploma

Strengthen your profile through the Eu2P Master of Science

Deepen your knowledge through the Eu2P PhD degree

Apply on-line for a Eu2P training programme
THE Eu2P TRAINING OFFER
Choose academic awards designed by a strong Consortium!

7 European Universities + 2 Regulatory Agencies + 15 Pharmaceutical Companies
The Eu2P training offer

Eu2P offers courses in pharmacovigilance and pharmacoepidemiology provided and updated by a strong partnership of seven universities, fifteen pharmaceutical companies, the French and the European Medicines Agencies.

Eu2P offers academic courses recognized by private and regulatory experts:

- **Short courses**
  Short courses of 30 minutes to 2 hours on hot topics or focused on your needs, available over one month or more

- **25 stand-alone certificates**
  A standard module that runs over 3 months and leads to an academic Certificate

- **Master programme**
  A postgraduate curriculum in one or two years associated to a research project that leads to a Master of Science degree

- **PhD programme**
  A thesis in three years associated to a postgraduate curriculum that leads to a PhD degree
Choose the course that best fits your profile!

- 16% Trainees from North America
- 57% Trainees from Europe
- 11% Trainees from Asia
- 12% Trainees from Africa
- 4% Trainees from South America

- 30% Trainees on full-time pace
- 70% Trainees on part-time pace

- 29% Trainees are students
- 71% Trainees are professionals

The Pharmacovigilance System

Duration: 30'
Eu2P provides flexible and modular courses through its web-based platform.

Each trainee is identified and is granted access rights to the e-Learning platform tools and resources in order to interact with trainees and trainers.

By choosing Eu2P, you can learn anytime, anywhere, anypace!

Eu2P is designed:

- For healthcare professionals
- For graduate and postgraduate students in Health and Life Sciences
- For non-specialists professionals
- For companies, regulatory agencies and academic institutions
THE Eu2P TRAINING PARTNERSHIP
The first fully online training programme in Pharmacovigilance and Pharmacoepidemiology created by a strong public-private Consortium
The Eu2P training partnership

The Eu2P training partnership is composed of seven universities, two regulatory agencies and fifteen pharmaceutical companies.

The University of Bordeaux is the academic coordinating institution for the whole Eu2P programme.
THE Eu2P COURSE CURRICULUM OFFER
Course domains

D1 - Basics for pharmacovigilance and pharmacoepidemiology

18

D2 - Benefit assessment of medicines

20

D3 - Medicines pharmacovigilance and regulatory aspects

22

D4 - Medicines risk identification and quantification

24

D5 - Medicines benefit-risk assessment

26

D6 - Medicines and public health

28

D7 - Medicines risk communication

32
Course objectives

**Introductory level modules**

- To make the trainees familiar and able to understand the main epidemiological and statistical principles, concepts and tools used in pharmacovigilance and pharmacoepidemiology practices and research
- To train on the main health indices used to describe mortality and morbidity of the population
- To learn the principles used to design and appraise observational studies
- To master basics concepts on how to communicate written and oral scientific results
Academic course offer in Domain 1

1. Basics in epidemiology
   - Descriptive epidemiology (person, place and time)
   - Observational studies in pharmacoepidemiology
   - Biases in pharmacoepidemiology studies
   - Causality criteria, evidence level and critical reading

   Offered as
   - C Certificate
   - M Master Y1 module

2. Basics in statistics
   - Introduction to statistics and probability
   - Estimates
   - Statistical testing
   - Introduction to multivariable linear regression

   Offered as
   - C Certificate
   - M Master Y1 module

3. Valorisation and critical appraisal in research
   - Critical reading of scientific literature: clinical trials and observational studies
   - Principles of the redaction of scientific papers and reports
   - Principles of scientific posters and oral communication
   - Introduction to scientific watch: principles and techniques
   - Presentation of the main institutions in Health Sciences
   - Principles for research funding

   Offered as
   - C Certificate
   - M Master Y1 module

*Introductory level*
Eu2P Domain 2
Benefit assessment of medicines

Directed by the Autonomous University of Barcelona

Course objectives

**Introductory level module**
- To understand the need of benefit assessment of medicines in order to fulfil patients’ needs
- To develop a general knowledge of the clinical, pharmacological and epidemiological principles underlying medicines prescribing and use
- To review and become familiar with the clinical, pharmacological and epidemiological basis of medicines effects evaluation
- To understand the clinical, pharmacological and epidemiological principles of the evaluation of medicines efficacy and effectiveness

**Intermediate and advanced level modules**
- To know the scientific principles underlying the decision making process of prescribing
- To know the methods used in epidemiological studies and in randomized clinical trials to assess the efficacy and effectiveness of medicines
- To be aware of the limitations of scientific evidence in the benefit assessment of medicines
- To discuss and analyse the need to solve therapeutic uncertainties through clinical research
# Academic course offer in Domain 2

1. **Basics in clinical pharmacology**
   - Clinical pharmacology: aims and uses in the therapeutics
   - Clinical pharmacology and epidemiological evaluation of medicine effects
   - The randomized clinical trials (RCT) as a method for assess the efficacy of medicines
   - Basics for RCT appraisal: extrapolation of RCTs results to clinical practice

   **Offered as**
   - Certificate
   - Master module

2. **Clinical and pharmacological principles**
   - Patients’ therapeutic needs, medicines and society
   - Patients, physicians, information and prescribing
   - Clinical and pharmacological basis of therapeutics
   - Variability in medicines response
   - Therapeutics and medicines prescribing of medicines for selected health problems

   **Offered as**
   - Certificate
   - Master module
   - PhD module

3. **Methods in clinical research, pharmacoepidemiology and in the assessment of the efficacy of medicines**
   - Scientific methods and causality
   - Statistical and methodological issues for the design and analysis of clinical trials
   - Ethical issues in the development of clinical research and clinical trials
   - Systematic review and meta-analysis of randomised clinical trials
   - Other methods for the evaluation of the effectiveness of medicines and therapeutic interventions

   **Offered as**
   - Certificate
   - Master module
   - PhD module

4. **Critical appraisal of clinical trials: evidence-based medicine and its uncertainties**
   - Randomised clinical trials limitations
   - Evidence-based medicine and its limitations
   - Critical appraisal of randomised clinical trials limitations
   - Critical appraisal of a meta-analysis of randomised clinical trials
   - From therapeutic uncertainty to a research protocol

   **Offered as**
   - Certificate
   - Master module
   - PhD module

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**Introductory level**  **Intermediate level**  **Advanced level**
Eu2P Domain 3
Medicines pharmacovigilance and regulatory aspects

Directed by the University of Hertfordshire

Course objectives

Introductory level module

To enable trainees to develop an understanding of the principles of pharmacovigilance from the development of the science to its place in pre and post-authorisation environment and the roles of various stakeholders within pharmacovigilance.

Intermediate level modules

To develop an understanding of European, USA, Japanese and major local and worldwide regulations and guidelines concerning pharmacovigilance. Emphasis is placed on the problems of interpretation of pharmacovigilance regulations both pre- and post-authorisation.

To enable participants (specialists) to develop an understanding of the requirements of Pharmaceutical Industry of the operational aspects of pharmacovigilance as it relates to the preparation of documents legally required by regulatory bodies. Focus is on the adverse event reporting process within Industry, placed within the context of regulatory requirements and best practice.
## Academic course offer in Domain 3

### 1. Principles of pharmacovigilance
- Introduction to Pharmacovigilance principles
- Safety evaluation during a products lifecycle
- Labelling and risk management

### 2. Pharmacovigilance regulations
- Pharmacovigilance regulations: concept
- The working Pharmacovigilance regulations
- Other related Pharmacovigilance regulations and guidelines
- Pharmacovigilance regulations

### 3. Pharmacovigilance regulatory processes
- Case reporting
- Periodic reporting
- Product Labelling and Risk Management Plans
- Contractual arrangements

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**Offered as**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Level</th>
<th>Module</th>
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<tbody>
<tr>
<td>Principles of pharmacovigilance</td>
<td><strong>Certificate</strong></td>
<td><strong>Master Y1 module</strong></td>
</tr>
<tr>
<td>Pharmacovigilance regulations</td>
<td><strong>Certificate</strong></td>
<td><strong>Master Y2 module</strong> or <strong>PhD module</strong></td>
</tr>
<tr>
<td>Pharmacovigilance regulatory processes</td>
<td><strong>Certificate</strong></td>
<td><strong>Master Y2 module</strong> or <strong>PhD module</strong></td>
</tr>
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- Introductory level
- Intermediate level
Eu2P Domain 4
Medicines risk identification and quantification

Directed by the Erasmus Medical Center of Rotterdam

Course objectives

**Intermediate and advanced level modules**

To enhance knowledge about and make the trainees capable of identifying and quantifying risks of medicines and to interpret publications and study results
Academic course offer in Domain 4

1. **Principles of identifying and recognizing adverse events and safety signals**
   - Definition of adverse drug reactions - type of ADRs
   - Detection and recognition of adverse events in clinical trials
   - Adverse event coding principles and differences
   - Spontaneous reporting databases
   - Principles of signal detection on electronic health care databases
   - Risk management plans

   **Offered as**
   - **C** Certificate
   - **M** Master module
   - **D** PhD module

2. **Substantiation and quantification of risks**
   - Introduction: from case based reasoning to population based reasoning, examples: Augmentin, H1N1 vaccination, Yellow fever vaccine
   - Theory of causality: causality from different perspectives, validity & causal diagrams, plausibility & substantiation
   - Designing a study: study designs, basic epidemiological measures, data sources, workflow to quantify risks, case and exposure identification, codes of conduct, writing a protocol
   - Data analysis: SAS, raw data to metrics, elementary and advanced analysis, controlling confounding, Bayesian methods, sensitivity analysis, meta-analysis
   - Communication of results: communication with academia, regulators, pharmaceutical industry, writing a pharmacoepidemiological paper

   **Offered as**
   - **C** Certificate
   - **M** Master module
   - **D** PhD module

3. **Identifying susceptibility for adverse drug reactions**
   - Introduction, risk factors and effect modification
   - Variability in drug response and principles of pharmacogenetics/pharmacogenomics
   - Assessment of pharmacogenetic influence through candidate genes and genome-wide association studies (GWAS)
   - Ongoing initiatives and biological interpretation
   - Successes and failures in pharmacogenetic studies

   **Offered as**
   - **C** Certificate
   - **M** Master module
   - **D** PhD module

*Intermediate level*  *Advanced level*
Course objectives

**Introductory level module**
- To obtain overview/basic insight into benefit-risk assessment methods (including pharmacoeconomics), the process of decision making on medicines

**Intermediate and advanced level modules**
- To obtain detailed insight into benefit-risk assessment methods (including pharmacoeconomics), the process of decision making on medicines by different stakeholders
- To be able to apply benefit-risk assessment methods in daily practice
Academic course offer in Domain 5

1. Introduction to benefit-risk assessment and pharmacoeconomics in decision making
   - Introduction
   - Benefits
   - Risk/Harms
   - Principles and methods of comparative benefit-risk assessment
   - Principles of Pharmacoeconomics

2. Principles of pharmacoeconomics and valuation of health states
   - Introduction
   - Costs
   - Effects
   - Pharmacoeconomic analysis
   - How to perform a good pharmacoeconomic evaluation

3. Fundamentals of quantitative benefit-risk assessment methods in decision making on medicines
   - Introduction to benefit-risk analysis methods
   - Benefit/Risk assessment during life cycle of medicines
   - Measures based on statistics/simulation
   - Health outcomes models

4. Advanced quantitative benefit-risk assessment methods in decision making on medicines
   - Multi-criteria decision analysis
   - Conjoint analysis
   - Personalized benefit-risk assessment

Offered as
- Certificate
- Master module
- PhD module

TOPICS
- Introductory level
- Intermediate level
- Advanced level
Course objectives

**Introductory level module**
- To provide basic knowledge of the evaluation of the effects of medicines from an epidemiological point of view
- To understand the limits of the available information on efficacy and risks associated with medicines
- To understand the differences between experimental studies and the actual use of medicines in clinical settings
- To know how is it possible to study the effects of medicines from a public health point of view

**Intermediate level modules**
- To provide intermediate and advanced knowledge of the effects of medicines from a public health point of view
- To develop theoretical and practical knowledge of the quantitative analysis of medicines utilisation
- To develop theoretical and practical knowledge of the qualitative analysis of medicines utilisation

**Advanced level module**
- To know how to study the health and economical impact of side effects of medicines for the community
Academic course offer in Domain 6

1. Basics in pharmacoepidemiology
   - Patients, medicines and prescribing in society.
   - Life cycle of medicines
   - The knowledge-building process of the effects and adverse effects of medicines during their development and clinical use
   - Overview of studies to detect and to evaluate the risk associated with therapeutic interventions
   - Scope, uses and limitations
   - The need to monitor the medicines prescribing process
   - Introduction to the study of the use of medicines in clinical practice

   **Topics**
   - Certificate
   - Master Y1 module

2. Drug utilisation studies: introduction and quantitative methods
   - Measurement of drug use
   - Overview of drug utilisation studies DUS
   - Quantitative measures of drug utilisation
   - Design of quantitative DUS
   - How to read papers on quantitative DUS

   **Topics**
   - Certificate
   - Master Y2 module
   - PhD module

3. Drug utilisation studies: qualitative methods
   - Sources of data and standards to compare with
   - Methods to identify how medicines are used in the community (1) - prescription vs indication and indication vs prescription
   - Methods to identify how medicines are used in the community (2) - cohort and case-controls studies as a source of drug utilisation data
   - Design of qualitative DUS: Objectives, methods and discussion of proposals
   - How to read papers on qualitative DUS
   - Limitations of DUS

   **Topics**
   - Certificate
   - Master Y2 module
   - PhD module

*Introductory level  Intermediate level*
### Academic course offer in Domain 6

**Offered as**

<table>
<thead>
<tr>
<th>Certificate</th>
<th>Master module</th>
<th>PhD module</th>
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</table>

#### 4. The public health impact of adverse drug reactions

- Data generalization: from particular cases to population impact-1, the interpretation of the results of clinical trials and meta-analyses from the public health point of view
- Data generalization: from particular cases to population impact-2, examples of the value of observational studies and meta-analyses of observational studies in the evaluation of the public health impact of medicines use
- Public health impact - Case: Hormone replacement therapy
- Public health impact beyond case-control studies
- The importance of the denominator: Case-population studies, the future of pharmacovigilance

*Advanced level*
Course objectives

**Introductory level modules**
- To know the basic principles of medicines risk communication, its tools and its place in mitigating risks linked to the use of medicines

**Intermediate and advanced level modules**
- To get a clear understanding of the stakes and stakeholders’ involvement in medicines risk communication and their determinants
- To have an accurate view of the way medicines risk communication works in the real life
1. Basics in communication

- Which knowledge and skills are useful for communication?
- Concrete examples of communication: what do we retain?
- Why communicate?
  Nature and importance of communication
  Personal and social dimension of communication
- Face to face between doctor and patient
  How to find the right word?

2. Information and communication about benefit-risk of medicines. Basic principles.

- Principal actors in communication on medicines risk, of traditional and new forms of communication, of routes of communication and their evolution through time
- Basis of risk communication process
- Regulatory responsibilities and requirements concerning medicines risk communication
- Communication of actual and alleged risks associated to medicines: three different scenarios

3. Key roles and stakeholders in medicines risk communication: duties and challenges

- Historical perspective: evolution of concept of risk communication, social impact of drug risk communication
- Risk perception: actual vs perceived and factors influencing perception, population vs individual risk perception
- Concept of uncertainty: how to deal with this in risk communication
- Nature and importance of communication of risk of medicines: accessibility of data, conflict of interest and independent information
- Regulatory agencies’ strategies to address the challenges of risk communication

- Introductory level
- Intermediate level
Academic course offer in Domain 7

4. Case studies in medicines risk communication

- Hepatitis B vaccine in France, pandemic influenza vaccines, HRT and cancer: what can we learn? What could have been done?
- Communication aspects based on drug withdrawals: e.g. rofecoxib, rosiglitazone, benfluorex, what can we learn? What could have been done?
- How to measure the effectiveness of risk communication?

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<td>Certificate</td>
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<td>Master Y2 module</td>
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<td>PhD module</td>
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Advanced level
THE Eu2P SHORT COURSES PROGRAMME ORGANISATION
Gain rapid and accurate expertise through the Eu2P Short courses!

Your training progress reaches 100%

Your graded evaluation reaches at least 80% good score

Learning content over 30 minutes to 2 hours

Final evaluation by multiple choice questions

Eu2P Certificate of training achievement

1 month
The Eu2P short courses programme organisation

Get a Certificate of Training Achievement

The Eu2P short course is a training designed for professionals who want to get an up-to-date, quick and solid knowledge. This programme leads to Awards in pharmacovigilance and pharmacoepidemiology jointly acknowledged by the European Universities working together as Eu2P partners.

Get a valuable Certificate for job market

A recognised quality for audit inspections

Eu2P programme ensures and controls up-to-date knowledge, expertise and qualification of medicines related collaborators from individuals to large teams.

Designed for experts by experts

The Eu2P Short Courses are built and recognised by all the 24 academic, regulatory and industrial Eu2P partners so that they are grounded in real job market and today’s practices.

Eu2P programme is being noticed and recognized worldwide as an excellent means to get medicines related jobs.

Choose a flexible online programme

Awarded for e-learning quality, Eu2P online courses can be attended from home or work. The average course workload is less than 2 hours. The learning activities can be followed according to your wish. You can start a learning activity then stop and start another one, then come back later to the one you have firstly opened. The Certificate is awarded after a final assessment.
Enjoy affordable prices

Eu2P short courses are affordable - typically 500€ per course for a monthly registration per person.

Buy short courses package to save money:

<table>
<thead>
<tr>
<th>Students &amp; Professionals</th>
<th>Companies</th>
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<tbody>
<tr>
<td>1 short course</td>
<td>5 short courses</td>
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<tr>
<td>500 €</td>
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<td>5 short courses</td>
<td>10 short courses</td>
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<td>1,500 €</td>
<td>2,000 €</td>
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<tr>
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<td>Custom package</td>
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<tr>
<td>2,000 €</td>
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</tr>
</tbody>
</table>

Eu2P welcomes worldwide pharmaceutical companies into its short course programme and provides quotes tailored to their needs in terms of content, duration and number of collaborators.

Find detailed informations on this offer in the Eu2P short courses leaflet
THE Eu2P CERTIFICATE
PROGRAMME ORGANISATION
Improve your professional competencies through the Eu2P academic Certificate diploma!

- **Live lectures**
- **Forums**
- **Tutoring & Live sessions**
- **Eu2P Certificate**
  - European academic diploma

**Certificate course**
- 3 ECTS credits workload

**Graded examination**
- to validate your certificate programme
  - Continuous assessment
  - Final examination

3 months
The Eu2P Certificate programme organisation

Get a European academic Certificate
The Eu2P Certificates leads to academic Awards in pharmacovigilance and pharmacoepidemiology jointly delivered by the European Universities working together as Eu2P partners.

Standard and extended Eu2P certificates learning achievements are recognized as respectively 3 and 6 ECTS credits.

Get a valuable Certificate for job market

Graded expertise level
You can choose between introductive, intermediate or advanced Certificate courses level fitting your background and needs!

A recognised quality for audit inspections
Eu2P programme ensures and controls up-to-date knowledge, expertise and qualification of medicines related collaborators from individuals to large teams.

Designed for experts by experts
The Eu2P Short Courses are built and recognised by all the 24 academic, regulatory and industrial Eu2P partners so that they are grounded in real job market and today's practices.

Eu2P programme is being noticed and recognized worldwide as an excellent means to get medicines related jobs.

Choose a flexible online programme
Awarded for e-learning quality, Eu2P online courses are followed at home and on job premises at your convenience. The average course workload is one day a week over a 3 or 6 months period (depending on the course weight).

The Certificate diploma is awarded after a final assessment session.
Enjoy affordable prices

Tuition fees are **adjusted to student or professional status**. Savings on regular fees can be offered under eligibility conditions.

<table>
<thead>
<tr>
<th>Students</th>
<th>Professionals</th>
<th>Companies</th>
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</thead>
<tbody>
<tr>
<td>1,500 €</td>
<td>3,000 €</td>
<td>Quote on request</td>
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</table>

Get savings

**Partners' saving**

Each Eu2P partner benefits from a special price on Eu2P tuition fees for their students or employees!

<table>
<thead>
<tr>
<th>Savings for Certificate fees</th>
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</thead>
<tbody>
<tr>
<td>Student in a Eu2P University</td>
</tr>
<tr>
<td>Employee in a Eu2P agency, company or affiliate</td>
</tr>
</tbody>
</table>

**Reward programme**

Gain up-to **20% of savings** when studying with Eu2P!

Eu2P gives you reward points each time you register to a Eu2P Certificate: one point amounts to one euro. You can redeem these points and get savings on next course tuition fees!

Apply on-line

**Calendar**

On-line application sessions are organised throughout the year according to the certificates calendar:

- A **first** certificate session runs from **October to December**
- A **second** certificate session runs from **January to April**
- A **third** certificate session runs from **April to June**

[Check regularly on](www.eu2p.org)
Admission criteria

The application procedure and the selection process are the same for all candidates, regardless of whether you come from Eu2P partners or not, from European or third countries.

To be eligible, you must:

- be fluent in English
- be familiar with computer use and have Internet access
- submit a complete on-line application, together with all supporting documentation required (diplomas, certificates, letter of motivation...)

Pre-requisites depend on the chosen module: please refer to each Certificate description page on www.eu2p.org.
THE Eu2P MASTER PROGRAMME ORGANISATION
Strengthen your profile through the Eu2P Master of Science!

Theoretical content
30 ECTS credits by year

Research project
30 ECTS credits by year

Tutoring & Live sessions

Live lectures
Forums

Tutored project

Graded examination
to validate 60 ECTS credits by year

Continuous assessment
Final examination

Project presentation

Eu2P Master of Science degree
120 ECTS credits over 2 years

Eu2P Master of Science in Pharmacovigilance and Pharmacoepidemiology
The Eu2P Master programme organisation

Get a European Master of Science degree

**120 ECTS credits over 2 years**

The Eu2P Master is an academic post-graduate training in pharmacovigilance and pharmacoepidemiology that leads to a MSc degree jointly awarded by the European Universities working together as Eu2P partners.

The Eu2P Master includes for each academic year:

- **30 ECTS credits** through the validation of theoretical content
- **30 ECTS credits** through the validation of a research project

Each Master trainee must conduct a research project in parallel to the theoretical training along the academic year. This research project can be achieved within an academic, regulatory or private body.

**Your curriculum specialization**

In second year, choose a Master specialization among:

- Benefit assessment of medicines
- Medicines risk identification and quantification
- Medicines benefit-risk assessment
- Medicines and public health
- Medicines risk communication

or select "à la carte" modules to match specific needs

**Get a valuable Master degree for job market**

The Eu2P Short Courses are built and recognised by all the 24 academic, regulatory and industrial Eu2P partners. Eu2P courses are grounded in real job market and today’s practices and research projects can be performed in public or private environments.

Eu2P programme is being noticed and recognized worldwide as an excellent means to get medicines related jobs.
Choose a flexible online programme

Awarded for e-learning quality, Eu2P online courses are followed at home and on job premises at your convenience.

Master Year 1 or 2 curriculum can be performed on a full or part time basis to suit your time availability.

The Master can be entered directly into the 2nd year for postgraduate trainees.

Get savings and grants

Master annual tuition fees

<table>
<thead>
<tr>
<th>Students</th>
<th>Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td>7,000 € per year</td>
<td>12,000 € per year</td>
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</tbody>
</table>

Partners' saving

Each Eu2P partner benefits from a special price on Eu2P tuition fees for their employees!

Savings for Master year fees

| Employee in a Eu2P agency, company or affiliate | - 20% |

Reward programme

Gain up-to 20% of savings when studying with Eu2P!

Eu2P gives you reward points each time you register to a Eu2P Master programme: one point amounts to one euro. You can redeem these points and get savings on next course tuition fees!

Master grants

Eu2P offers a limited number of grants to Master selected applicants to cover partial Master tuition fees.

Eu2P grants are awarded by the Eu2P consortium and private organizations on the appraisal of the applicant’s status regarding:
Apply on-line

Calendar
The first and second Master years run from the end of September to early July for theoretical training and research project.

On-line application runs each year from January to June through www.eu2p.org

Admission criteria
The application procedure and the selection process are the same for all candidates, regardless of whether you come from Eu2P partners or not, from European or third countries.

To be eligible, you must:

- be fluent in English
- be familiar with computer use and have Internet access
- submit a complete on-line application, together with all supporting documentation required (diplomas, certificates, letter of motivation...)

If you apply to the full Master (entry in Year 1), you must:

- have at least a Bachelor degree or an equivalent certified level in Health or Life sciences

If you apply to Master Year 2, you must:

- hold a Master Year 1 level or an equivalent certified level in Health or Life sciences including credits in basic pharmacology, epidemiology and statistics
  
  or

- be employed, have a graduate level in Health or Life sciences and 3 years of relevant professional experience in Pharmacovigilance and Pharmacoepidemiology
Master Year 1 curriculum

The Master Year 1 trainee must validate the theoretical and the practical trainings to progress to the second year programme of the Master in Pharmacovigilance and Pharmacoepidemiology.

Theoretical courses (30 ECTS credits)

<table>
<thead>
<tr>
<th>Basics in epidemiology</th>
<th>Basics in statistics</th>
<th>Valorisation and critical appraisal in research</th>
<th>Basics in clinical pharmacology</th>
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</thead>
<tbody>
<tr>
<td>Principles of pharmacovigilance</td>
<td>Basics in pharmacoepidemiology</td>
<td>Basics in medicines risk communication</td>
<td>Analysis and synthesis of health data</td>
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</table>

Each course module is appraised through continuous and/or final assessment. The Master Year 1 trainee must at least obtain the “pass” grade in each module to validate the theoretical training part of the Master first year programme.

Project research (30 ECTS credits)

Each Master trainee must conduct a research project in parallel to the theoretical training along the academic year. This research project can be achieved within an academic, regulatory or private body.

Note: If you are employed, you can perform the research project on your employer’s premises.

This research project is assessed through three separate assessments:

- the overall research project conduct
- the research project written report
- the oral defence of the research project report

The Master Year 1 trainee must at least obtain the overall "pass" grade for the research project to validate the practical training part of the Master first year programme.
Master Year 2 curriculum

The Master Year 2 trainee must successfully complete the theoretical and the practical trainings to be awarded the Eu2P Master in Pharmacovigilance and Pharmacoepidemiology.

**Theoretical courses (30 ECTS credits)**

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<th>TRACK D2</th>
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<th>TRACK D5</th>
<th>TRACK D6</th>
<th>TRACK D7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical pharmacological principles</td>
<td>Principle of identifying and recognising adverse events and safety signals</td>
<td>Introduction to benefit-risk assessment and pharmaco-economics in decision making</td>
<td>Drug utilization studies: introduction and quantitative methods</td>
<td>Information and communication about benefit-risk of medicines. Basics principles</td>
</tr>
<tr>
<td>Methods in clinical research, PE and in the assessment of efficacy of medicines</td>
<td>Pharmaco-vigilance regulations processes</td>
<td>Substantiation and quantification of risks (1)</td>
<td>Principles of pharmaco-economics and valuation of health states</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifying susceptibility for adverse drug reactions</td>
<td>Advanced quantitative benefit-risk assessment methods in decision making on medicines</td>
<td></td>
</tr>
</tbody>
</table>

Each course module is appraised through continuous and/or final assessment. The master Year 2 trainee must at least obtain the "pass" grade in each module, whether their course modules are mandatory or complementary.

*Each square counts for 3 ECTS credits*

- **Mandatory course modules**
- **Course modules for specialisation**
For this second year of Master, two teaching scenarios are proposed to trainee: “Specialised Master” vs “A la carte Master”.

**Specialised Master**

- All black modules row is mandatory
- One specialisation track column is chosen among:
  - TRACK D2 = “Domain 2 - Benefit assessment of medicines”
  - TRACK D4 = “Domain 4 - Medicines risk identification and quantification”
  - TRACK D5 = “Domain 5 - Medicines benefit-risk assessment”
  - TRACK D6 = “Domain 6 - Medicines and public health”
  - TRACK D7 = “Domain 7 - Medicines risk communication”
- Complementary modules have to be selected among remaining modules to overall validate 30 ECTS credits

**"A la carte" Master**

- This track is composed of four modules of your choice among the Master specialisations (blue modules)
- All black modules row is mandatory
- Complementary modules have to be selected among remaining modules to overall validate 30 ECTS credits

**Project research (30 ECTS credits)**

Each Master trainee must conduct a research project in parallel to the theoretical training along the academic year. This research project can be achieved within an academic, regulatory or private body.

*Note: If you are employed, you can perform the research project on your employer’s premises.*

This research project is assessed through three separate assessments:

- the research project supervisor evaluation
- the research project written report
- the oral defence of the research project report

The Master Year 2 trainee must at least obtain the overall "pass" grade for the research project to validate the practical training part of the Master second year programme.
THE Eu2P PhD
PROGRAMME ORGANISATION
Deepen your knowledge through the Eu2P PhD degree!

- **Portfolio activities**
  - 60 ECTS credits over 3 years
- **Thesis research**
  - 120 ECTS credits over 3 years

- **Course content**
  - Local & distant learning
- **Conferences**
  - Participation or organisation
- **Bibliography**
  - Publication & literature
- **Research project**
  - Hosted in research location

- **Doctoral Board**
  - & tutoring supervisors
- **Doctoral study plan**
- **Research project placement**
- **Video-conferencing**
- **Thesis research writing**

- **Graded examination**
  - To validate the portfolio activities
- **Thesis oral defence**
  - To validate the thesis research

**Eu2P PhD Degree**
- 180 ECTS credits over 3 years

---

This is to certify that [Student Name] has attended the [Program Name] and has successfully defended his thesis on [Thesis Title] in [University Name], to be awarded the **PHD IN PHARMACOLOGY AND PHARMACOEPIDEMIOLOGY**

*Signed by Dean of the University in the framework of the Eu2P PhD network*
The Eu2P PhD programme organisation

Get a valuable academic PhD degree

**180 ECTS credits over 3 years**

The Eu2P PhD programme is an academic doctorate curriculum in pharmacovigilance and pharmacoepidemiology. It leads to a PhD degree awarded by one of the Eu2P Academic Partners under the authority of the relevant National Ministry of Higher Education or ad hoc authority.

The whole Eu2P PhD curriculum covers 3 consecutive years, for a total of 180 ECTS credits, including:

- **120 credits** gained progressively by researching and writing a thesis
- **60 credits** for secondary PhD portfolio activities carried out at any given moment during the research period.

### Yearly overview of the PhD curriculum

<table>
<thead>
<tr>
<th>Type of activity</th>
<th>ECTS credits (number/year)</th>
<th>Total of ECTS (credits/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thesis research</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bibliographic knowledge</td>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>Advanced research training</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Portfolio activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eu2P workshop</td>
<td>4</td>
<td>20</td>
</tr>
<tr>
<td>Eu2P local and distant learning</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Seminars &amp; workshops participation</td>
<td>10</td>
<td></td>
</tr>
</tbody>
</table>

### Your curriculum specialization

PhD students are driven by a supervising team related to one of the Eu2P Academic partners for their thesis, but also to carry out their advanced project research, portfolio activities or simply to meet them and benefit from their knowledge. All these activities are detailed in their personal Doctoral Study Plan.
Get a valuable post-graduate degree for job market

The Eu2P PhD programme is built and recognised by all the 24 academic, regulatory and industrial Eu2P partners. Eu2P courses are grounded in real job market and today’s practices and research projects can be performed in public or private environments.

Eu2P programme is being noticed and recognised world-wide as an excellent means to get medicines-related jobs and improve regulatory sciences.

Choose a flexible online programme

The Eu2P PhD is open to applicants who hold a post-graduate diploma (e.g. Master of Science), from both EU and non-EU countries, without limitation in terms of age and nationality. Applicants may belong to Universities who are not part of the Eu2P PhD network.

Full-time doctoral study

PhD curriculum should be carried out on a full-time basis for 3 consecutive years with a sufficient funding.

Half-time doctoral study

PhD curriculum may be carried out in parallel to a professional occupation with a sufficient funding: in such case, the PhD curriculum may be followed and research carried out on a half-time basis. Trainees must ensure that they shall be able to complete their research work and defend their PhD thesis within an absolute maximum of 5 years beginning with the date of initial registration in the doctoral programme.

Get savings and grants

PhD annual tuition fees

<table>
<thead>
<tr>
<th></th>
<th>Students</th>
<th>Professionals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,500 € per year</td>
<td>6,000 € per year</td>
</tr>
</tbody>
</table>
Partners’ saving

Each Eu2P partner benefits from a special price on Eu2P tuition fees for their employees!

<table>
<thead>
<tr>
<th>Savings for PhD year fees</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employee</strong> in a Eu2P agency, company or affiliate</td>
</tr>
</tbody>
</table>

PhD grants

Eu2P offers a **limited number of grants to PhD selected applicants** to cover partial PhD tuition fees.

Eu2P grants are awarded by the Eu2P consortium and private organizations on the appraisal of the applicant’s status regarding:

- Academic performance
- Professional ambition and environment
- Personal situation
- Any special and financial circumstances that may affect training performance

Apply on-line

**On-line application runs each year through** [www.eu2p.org](http://www.eu2p.org)

Admission criteria

The Eu2P PhD is **open to applicants from both EU and non-EU countries**, without limitation in terms of age and nationality.

Applicants may also belong to Universities who are not part of the Eu2P PhD network.

To be eligible, you must:

- **satisfy the entrance requirements for admission to the doctoral programme** (3rd cycle within the European Higher Education and Research Area)
- **have solid background in Pharmacovigilance and Pharmacoepidemiology** documented on the basis of your transcripts and your **Master of Science degree** in Pharmacovigilance and Pharmacoepidemiology

More info about application P61
Doctoral study plan

The definition of the PhD topic is carried out in the Doctoral Study Plan in several stages by updating the research project for which the student has been selected and subject to remarks and suggestions along the whole duration of the thesis. The Doctoral Study Plan is consequently subject to supervision and validation by the Eu2P degree-awarding institution through the Eu2P Doctoral Board members and the approval of their related local doctoral school.

**Supervision of the doctoral study plan**

The Eu2P Doctoral Board sets the standards that the doctoral student must achieve and approves for each student, an academic plan and a project programme involving mobility called "Doctoral Study Plan".

For this purpose, the Doctoral Board appoints during the first induction month a PhD supervisor in line with the student Research project synopsis. The PhD supervisor must belong to a Eu2P Academic Partner and hold an accreditation or an equivalent level to supervise doctoral thesis such as full professor.

In the first three months of the programme, the PhD supervisor oversees the student’s progress, strengths or weaknesses, and guides him/her to the preparation of the Doctoral Study Plan that is submitted to the Doctoral Board at the end of the first trimester. The PhD supervisor in particular helps the student in the adoption of the most appropriate methodology to carry out his/her research successfully and guides him/her in the necessary research and drafting of a final thesis. There must be at least two meetings a year gathering the PhD student and the supervisor. Video-conferencing facilities may be used for meetings. The doctoral student may also benefit from other forms of peer monitoring in hosting academic and research centres.

**Setting up and annual validation of the doctoral study plan**

A Doctoral Study Plan must be established for each selected Eu2P PhD Student.

Eu2P members explicitly invite innovative project proposals which are prepared to strike out into new fields. Within the programme, public and private Eu2P members can provide expert supervision and academic accompaniment in a wide variety of fields and their interconnections.

The Doctoral Study Plan drawn up during the first term of the PhD curriculum between the PhD student and his/her supervisor, must detail:
The thesis research project supervision such as appointment rules, names and roles of the supervisor

The thesis research project conduct locations, the description and scientific justification of the mobility within the Hosting academic and research centres

The research activities main lines and expected results

The programmed portfolio activities

The final validation of the initial Doctoral Study Plan is the last mandatory step needed before the student can actually finalise his/her registration with the awarding Eu2P Academic Partner.

The Doctoral Study Plan must be yearly updated and validated together with the PhD student and supervisor. Each annual update must be sent to the Eu2P Central Office to be recorded and available for consultation by the Doctoral Board and each related doctoral school of Eu2P Academic Partners.

Doctoral study location and mobility

The Eu2P PhD student is advised to make the most of the Eu2P consortium possibilities and build a close research network among the Eu2P partners. Each PhD student is based primarily at one Eu2P Home academic institution depending on his/her PhD supervisor.

The student is strongly encouraged to work at least 6 months of the programme at another public or private Hosting Institution.

The Eu2P PhD student has the opportunity to perform the thesis research project in the premises of:

- A Eu2P Academic Partner
- An Higher Education Institution which it is not a Eu2P partner

or

- A non-Higher Education Institution, which may or may not be a Eu2P partner

In all cases, the Eu2P PhD student must be supervised by the PhD supervisor appointed by the Doctoral Board, belonging to a Eu2P Academic Partner and full or associate professors.

When the student is conducting research in another location than the supervisor institution, a local tutor is appointed by the supervisor. In any case, the tutor must be full or associate professors or equivalent with full authority to graduate PhD i.e. must have an academic accreditation to supervise research.
Mobility to a public or private institution must be justified in the Doctoral Study Plan.

For PhD students currently pursuing in parallel their work at one of the Eu2P Associated Partner’s premises, the mobility requirement may be adapted in the Doctoral Study Plan, upon specific agreement granted by the Eu2P Doctoral Board.

PhD portfolio activities

**Doctoral Activities**

In order to enhance the students’ employability and to improve their written/oral communication skills, the Doctoral Board has added portfolio activities so that the future Ph. Doctors are also fully operational as global academics. The academic plan of doctoral students comprises the carrying out of portfolio activities.

All the activities below are strongly recommended to the Eu2P doctoral students, but only 60 ECTS credits worth of activities are validated for their degree; this can be done at any stage during the whole duration of the Doctorate.

<table>
<thead>
<tr>
<th>Doctoral Activities</th>
<th>ECTS credits (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing an article for publication in a recognized journal</td>
<td>10</td>
</tr>
<tr>
<td>Producing a review for publication in a recognized journal</td>
<td>10</td>
</tr>
<tr>
<td>Participating or organising a conference, symposium...</td>
<td>3</td>
</tr>
<tr>
<td>Teaching experience at higher-education level</td>
<td>3</td>
</tr>
<tr>
<td>Completing Eu2P training courses and summer school</td>
<td>From 3 to 6</td>
</tr>
</tbody>
</table>

**Completion of Eu2P training courses**

The PhD student must justify the follow up and completion of the theoretical training along their project research work for at least a total amount of 20 ECTS credits along the three years of PhD registration.

Students may either follow modules chosen from the Eu2P web-based training offer among the seven domains or follow local face-to-face Eu2P Academic partner courses during the annual Summer schools.
THE Eu2P PROCESS TO APPLY FOR A TRAINING PROGRAMME
The Eu2p process to apply for a training programme

Application

The on-line process

Eu2P registration tool enables you to apply on-line to any Eu2P training.

The Eu2P application process must be fully completed on-line. You are asked to upload all the needed documents within this on-line application.

To apply for Eu2P programme, you have to:

- **Choose** one training programme to apply for
- **Login** to your "My Eu2P" account, or create one if needed
- **Provide** required application data
- **Pay** for application fees: 25 €

The paper process

The Eu2P application process must be fully completed on-line.

Nevertheless, if you can not upload needed documents, please print your on-line application fully completed and send it by postal mail with the copy of all needed documents to the following address:

**Eu2P Central Office**
Université de Bordeaux
146 rue Léo Saignat - Case 36
33076 Bordeaux cedex
FRANCE
Selection
Once your on-line application file is complete, it is sent to the respective Domain Board.

The Board ranks Eu2P applicants for each of the training:

- **Eligible list**: you are eligible for immediate registration.
- **Waiting list**: you could be eligible, provided that some "Eligible list" applications are cancelled.
- **Non-eligible list**: your application data are not approved for registration.

You will be warned about your application status by the Eu2P Central Office by e-mail.

Registration
Once you are informed about your selection status by e-mail, you are invited to confirm your registration as follows.

- **You are eligible**: you need to confirm your registration before a deadline and to pay for tuition fees to validate your registration
- **You are on waiting list**: you need to confirm your position on the waiting list

If you are non-eligible, you can contact the Eu2P Central Office for further explanations.
Join and follow us to stay informed

On Eu2P website:

On Eu2P social network:

www.linkedin.com/in/eu2porganization
www.facebook.com/Eu2P.org
https://twitter.com/Eu2P
www.google.com/+Eu2p0rg
www.youtube.com/user/eu2p

Eu2P is created by: