

# MODULAR IP EDUCATION FRAMEWORK (MIPEF)

EUROPEAN PATENT ACADEMY  
MIPEF TEAM  
31 – 05 – 2023

## KEY VISUAL OF THE COURSE




## GOAL AND FORMAT OF THE COURSE

 **Ready-to-go** university course on innovation and technology, suitable also for university customisation

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 Goal is to integrate the course in **regular university programs**

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 **one** course consisting of:  
**two** parts entry and advanced level  
**five** modules each  
**three** live sessions each  
**two** tutored forum with compulsory participation per course  
**one** final exercise marked by academic IP expert

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 Conceived for groups of up to **50** students, coming from different universities

## CONTEXT

-  The European Patent Academy is the centre of competence for IP awareness and IP education at the EPO
-  EPO supporting IP initiatives in Europe since 2005, through a consolidated collaboration with universities and TTOs
-  Universities and higher education institutions are the ideal place to promote IP education
-  A new IP learning offer complementary to university programmes



## OUR GOALS



Build a **sustainable** future for IP awareness and IP education



Engage in a **systematic** co-operation with universities while avoiding ad hoc initiatives




Complement existing IP education with **hands-on practitioners' perspective**




Ensure every **Master and PhD student** knows what IP is, and how to use the patent system to support innovation




## BENEFITS FOR UNIVERSITIES

 Expand the curriculum with a free of charge IP course co-labelled with the EPO


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 Leverage the IP learning offer with little university resources

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 Ready-made, adjustable to calendar and customisable offer for master and PhD students

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 Offers flexibility for use and can be hand-tailored to fit university curricula



## FACILITATORS OF CO-OPERATION

Co-operation is most effective when there is ...



... a desire to integrate IP culture within the university business strategy



... a “focal point” within the university or TTO



... a willingness to identify university bodies, academic programmes or professors to introduce the IP learning offer



## BENEFITS FOR STUDENTS



High-quality IP learning offer supported by the leading international organisation on patents



Wide variety of course formats including tutored online sessions by IP experts



Case studies and inspiring stories featuring finalists and winners of the European Inventor Award



Obtain EPO certificate and earn 6 ECTS





# CREATE – PROTECT – INNOVATE: BRINGING IDEAS TO MARKET

## Part I: Entry level

### Introduction to IP



An overview of IP rights, serving as a first encounter to the field.

MODULE I – 15 hrs

### Patent Essentials



What is a patent and what are the requirements to get a patent?

MODULE II – 20 hrs

### Introduction to patent information



Intro to patent information and its characteristics how to access patent information.

MODULE III – 10 hrs

### Patent Information in practice



Introduction to Espacenet and European Patent Register; use cases and exercises.

MODULE IV – 15 hrs

### Developing an IP Strategy



Tapping the economic benefits from your ideas.

MODULE V – 15 hrs

(3 ECTS credits, 75hrs and co-labelling with university partners)

# CREATE – PROTECT – INNOVATE: BRINGING IDEAS TO MARKET

## Part II: Advanced level

### Grant of Patents



Special focus on the following requirements:

- The grant procedure
- Patentability requirements
- Amendments

MODULE I – 20 hrs

### Enforcement of Patents



How patent rights can be reinforced in order to protect the patented invention and other routes of dispute solution.

MODULE II – 15 hrs

### Scouting and Assessment of Technology



Explores the market and basics of technology transfer.

MODULE III – 10 hrs

### IP Commercialisation



IP value extraction and licensing options.

MODULE IV – 20 hrs

### Use of IPRs



Real-life case studies across a variety of technical fields.

MODULE V – 10 hrs

(3 ECTS credits, 75hrs and co-labelling with university partners)

## OVERVIEW OF SYLLABUS



### Modules



### Topics covered



### Case studies



### Key takeaways



### Create-Protect-Innovate Bringing ideas to market: Part I | Syllabus

In this course, you will gain an understanding of the main categories of intellectual property (IP) rights, their primary features and how to apply these rights. The emphasis is on patents and on the "what", "when" and "how" of protecting inventions. Further topics include how to search for patents and how to develop an IP strategy.

Modules	Topics covered	Case Studies	Key takeaways
<b>Module 1</b> Introduction to IP	<ul style="list-style-type: none"> <li>The nature of knowledge and know-how</li> <li>Legally protecting intangible goods</li> <li>Different types of IP rights and their uses</li> <li>Benefits of IP rights</li> </ul>	<ul style="list-style-type: none"> <li>Environmentally friendly closed shower, invented by a European Inventor Award finalist</li> <li>Woven carbon fibre materials with a range of applications, including to cover the rotor blades of helicopters (NASA first helicopter approved by NASA)</li> </ul>	<ul style="list-style-type: none"> <li>Knowledge and ideas have the characteristics of public goods (non-excludable, non-rivalous)</li> <li>In the knowledge economy, wealth creation is based on intangible resources</li> <li>Original ideas can be protected to secure ownership, including as a sound basis for raising knowledge</li> <li>IP can be used to create exclusively, foster innovation and help attract funding</li> <li>A single product can be protected using different types of IP rights (PIPs)</li> <li>Specific national and international regulations apply to each type of IP</li> </ul>
<b>Module 2</b> Patent essentials	<ul style="list-style-type: none"> <li>Risks and relevance of patents</li> <li>Patentability requirements</li> <li>Exceptions and exclusions from patentability</li> <li>The patent system and its role in fostering innovation and economic growth</li> <li>Requirements for patent applications</li> <li>What to consider before filing</li> <li>What happens during the grant procedure</li> </ul>	<ul style="list-style-type: none"> <li>A process for turning shrimp to lemons into a sustainable alternative to leather, invented by a European Inventor Award finalist</li> <li>Flexible solar cells for portable devices, invented by winners of the European Inventor Award</li> </ul>	<ul style="list-style-type: none"> <li>Patent protection means an invention cannot be commercially made, used, distributed, imported or sold by others without the patent owner's consent</li> <li>The general principle is that breach of these conditions constitutes infringement</li> <li>An inventor submitting a patent that also must keep their invention secret at least until the application is filed</li> <li>Patents foster innovation, commercial competitiveness and the dissemination of new technical knowledge</li> <li>Patentability requirements vary from country to country: The European Patent Convention (EPC) provides a comprehensive list of subject matter excluded from patentability in Europe (Article 52, Article 53)</li> <li>Though patent protection gives the patent owner an exclusive right, this right is limited both in territory and time</li> <li>The maximum term of a European patent is 20 years from the filing date</li> </ul>
<b>Module 3</b> Introduction to patent information	<ul style="list-style-type: none"> <li>Why patent information is important</li> <li>The structure of patent documents</li> <li>The difference between prior art and legal event information</li> <li>Everyday situations in which patent information matters</li> <li>How to find and use patent information</li> </ul>	<ul style="list-style-type: none"> <li>Energy-saving rotary air compressor, invented by a European Inventor Award finalist</li> <li>A method for producing gelatin nanoparticles using algae extract</li> </ul>	<ul style="list-style-type: none"> <li>Public patent information is a key pillar of the patent system and a rich source of technical, legal and business information</li> <li>Most technical details about inventions and technologies are only disclosed in patent documents</li> <li>Patent information should be used at all stages of the innovation process</li> <li>There are numerous commercial and free-of-charge patent databases and search interfaces for enhancing and assessing patent information</li> <li>It's crucial to create an informed search strategy</li> <li>Search concepts based on patent classification symbols are a powerful tool</li> </ul>
<b>Module 4</b> Patent information in practice	<ul style="list-style-type: none"> <li>The benefits of patent information in the innovation process</li> <li>Prior art searches and patent monitoring in practice</li> <li>Freedom to operate analysis and patent intelligence in a nutshell</li> </ul>	<ul style="list-style-type: none"> <li>Fishing hook cover to save seabirds, invented by European Inventor Award Finalists</li> <li>Sensor implants for improved blood glucose control</li> <li>Electrodes for hydrogel production</li> </ul>	<ul style="list-style-type: none"> <li>Retrieving and assessing the technical content of patent documents is key to gain an accurate view of the state-of-the-art with respect to a technology or technical field</li> <li>Monitoring the pool of patent information is of crucial importance to stay on top of developments in your field</li> <li>The most widely used approach to assess the risk of infringing on other IP rights is the freedom-to-operate analysis</li> <li>With patent intelligence, you can identify trends and extract meaningful information to support educated decision-making</li> </ul>
<b>Module 5</b> Developing an IP strategy	<ul style="list-style-type: none"> <li>The importance of IP strategy</li> <li>IP rights management</li> <li>Patent filing strategy and action</li> <li>Costs and benefits of PIP rights</li> <li>Commercialising IP</li> </ul>	<ul style="list-style-type: none"> <li>Flexible solar cells for portable devices, invented by winners of the European Inventor Award Plus IP strategy aspects of</li> <li>Magnetic nanoparticles to diagnose disease, invented by a European Inventor Award finalist</li> <li>A process for turning shrimp lemons into a sustainable alternative to leather, invented by a European Inventor Award finalist</li> </ul>	<ul style="list-style-type: none"> <li>Successful IP strategy is both a consequence of and a strong impetus for your company's strategy</li> <li>It's important to have an IP strategy, and to implement it</li> <li>There are many cost and benefit aspects to consider before devising your IP strategy and in particular before filing a patent application</li> <li>The decision to commercialise rests on a variety of considerations, including the size of your company</li> </ul>
<b>Requirements</b>	NA		
<b>Assessment</b>	Test with multiple-choice questions at the end of each module. Active participation in live box, Final exercise.		
<b>Certification</b>	EPO certificate to be downloaded after completion of all activities		

# INDIVIDUAL COURSE DESCRIPTION



Course info



Module overview



Format




Target audience



Requirements

**Create – Protect – Innovate:**  
Bringing ideas to market  
Part I



**Module I: Introduction to IP**

Course info			
Course code	TBA	Study mode	Self-paced
Category / Level	Entry level	Duration	15 hours
Course type	E-learning	Required materials	-
Language of instruction	English	Assessment	Test consisting of multiple-choice questions
Fee	No	Certificate	Yes, EPO Certificate

**Module overview**  
Module I provides an introduction to intellectual property rights (IPRs), why they exist and how they protect intangible assets. Case studies present examples of how IPRs are used in practice to protect some of the latest innovations and how IPRs can be integrated into the business strategy of a company.

**Format**  
Learners can independently complete Module I online at their own pace. The module consists of high-quality videos, podcasts, and interactive educational elements. These explain the theory behind new concepts and provide exercises and case studies to help learners consolidate their knowledge. There are also quizzes, and a multiple-choice exam at the end of the module. In addition, a wide variety of sources are included for further study. To access the module, simply create an account with the e-learning centre of the EPO's European Patent Academy at [e-courses.epo.org](https://e-courses.epo.org).

**Target audience**  
Master and PhD students.

**Requirements**  
There are no formal requirements to participate in this course. Previous experience of e-learning is helpful, but not required.

**Topics covered**

- The nature of knowledge and know-how
- Protecting intangible goods
- Different types of IPRs and their uses
- Benefits of IPRs



Topics covered

## OUR OFFER FOR IMPLEMENTATION: PILOT PHASE

- **Part I** including **five** modules to be offered in Spring semester 2023
- Registration for the live tutored sessions will be soon announced



Three live sessions with dedicated tutors and live fora

18 April 2023

4 May 2023

25 May 2023

**Set  
the scene**

**Lecture  
Patent Essentials**

**Exercises on  
developing IP strategy**



1.5 hour virtual classrooms, 16:00 – 17:30 hours

## OUR OFFER FOR IMPLEMENTATION: SECOND STAGE

- **Part II** including **five** modules to be offered in Autumn semester 2023
- Registration for the live tutored sessions will be soon announced



Three live sessions with dedicated tutors and live fora

11 October 2023

8 November 2023

29 November 2023

**Set  
the scene**

**Lecture  
IP commercialisation**

**Exercises on  
developing IP Strategy**



1.5 hour virtual classrooms, 16:00 – 17:30 hours

## OUR ADDITIONAL OFFER FOR UNIVERSITIES

### Supporting IP awareness and promoting IP education

Inspiring inventors  
talk series

Advanced lecture  
series

Study visits



[Academy training catalogue](#)

Materials and products to  
enhance IP curriculum

EPO Academic Research  
Programme

# CONTACT

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