Create – Protect – Innovate: Bringing ideas to market. Part II

Karta opisu przedmiotu

Informacje podstawowe

Kierunek studiów Law, IP and New Technologies **Ścieżka** **Jednostka organizacyjna** Wydział Prawa i Administracji **Poziom kształcenia** law, IP and New Technologies **Forma studiów** studia stacjonarne **Profil studiów** ogólnoakademicki **Obligatoryjność** fakultatywny	**Cykl kształcenia** 2023/24 **Kod przedmiotu** **Języki wykładowe** Polski **Dyscypliny** Nauki prawne **Klasyfikacja ISCED** 0421Prawo

Okres Summer semester, III-V year of law, 1st year of IP and New Technologies	**Forma weryfikacji uzyskanych efektów uczenia się** egzamin **Sposób realizacji i godziny zajęć** [5 modules, 75 hours]	**Liczba punktów ECTS** [3]

Cele kształcenia dla przedmiotu

1	Course "Create – Protect – Innovate: Bringing ideas to market" has been developed and is delivered by European Patent Office. It aims at providing comprehensive knowledge on patent law complementing existing IP education with hands-on practitioners' perspective based on case studies with focus on further commercialization. Part II of the course provides students with advanced knowledge and put more emphasis on commercialization.

Efekty uczenia się dla przedmiotu

Kod	Efekty w zakresie	Kierunkowe efekty uczenia się	Metody weryfikacji
Wiedzy – Student zna i rozumie:			

W1	The graduate knows and understands the current challenges of patent law	PRA_K3_W05	Written exam
W2	The graduate knows and understands the principles of obtaining patent protection, in particular in the context of innovative activities and commercialization processes	PRA_K3_W08	Written exam
W3	The graduate knows and understands the framework of European patent law	PRA_K3_W04	Written exam
Umiejętności – Student potrafi:			
U1	The graduate is able to convey knowledge and argue using specialized patent law terminology in English	PRA_K3_U04	Written exam
U2	The graduate is able to make a preliminary qualification for patent protection (search for patent information and assess patentability) and formulate a commercialization strategy	PRA_K3_U03	Written exam
Kompetencji społecznych – Student jest gotów do:			
K1	The graduate is ready to improve his/her competences in the field of innovation protection and commercialization	PRA_K3_K04	Written exam
K2	The graduate is ready to take a justified position on differences in the application of patent law	PRA_K3_K05	Written exam

Bilans punktów ECTS

Forma aktywności studenta	**Średnia liczba godzin* przeznaczonych na zrealizowane rodzaje zajęć**	
online lectures, video recordings	15	
preparation for classes	10	
judicature analysis	10	
legal text analysis	10	
self study	10	
online forum / office hours / consultations	8,5	
live sessions	4,5	
Exam	7	
Łączny nakład pracy studenta	**55 godzin**	**2 ECTS**

Liczba godzin kontaktowych	20 godzin	1 ECTS

* godzina (lekcyjna) oznacza 45 minut

Treści programowe

Lp.	Treści programowe	Efekty uczenia się dla przedmiotu
1	**Module 1 Grant of patents** This module provides an overview of the patent grant procedure. The patentability requirements are explained with special emphasis on "novelty" and "inventive step". Case studies deal with the assessment of novelty and the "problem-solution approach". – End-to-end patent grant procedure – Patentability requirements at the EPO – Patentable subject-matter – Patent application requirements – Invention requirements – Amendments – Understanding claims and drafting Case Studies: – Environmentally friendly closed-loop shower, invented by a European Inventor Award finalist – Turning pineapple leaves into a sustainable alternative to leather, invented by a European Inventor Award finalist – The toy ball patent	W1, W2, W3, U1, U2, K2
2	**Module 2 Enforcement of patents** A key aspect of patent protection is the understanding that it will be enforced in the event of infringement or the threat of infringement. This module provides an overview of the different means of enforcing patents and what a litigation procedure could look like. In addition, this module illustrates the possible alternatives that can be pursued if a less costly and less time-consuming solution is sought. – Patents and their role in business – What a patent protects ("scope" of a patent) – Introduction to the various types of patent infringement – Fundamental aspects of infringement proceedings – Validity of a patent as prerequisite for enforcement – Licensing – Alternatives to patent infringement proceedings Case Studies: – Wind turbines and how to understand claims – The invention of wifi	W1, W2, W3, U1, K2
3	**Module 3 Scouting and assessment of technology** This module aims to teach students how to identify new and competing technologies that could affect their own inventions and business cases. Using current and past trends, it involves monitoring and predicting emerging technologies and identifying the technologies most likely to be disruptive in the future. It also covers technology transfer and the role of a Technology Transfer Office. – What technology transfer is and how it works within a university/research laboratory setting – The role of a Technology Transfer Office – Assessment of who owns the rights to an invention – How to perform a technology search and why someone would want to Case Studies: – Revolutionary magnetic resonance imaging (MRI) techniques, developed by researchers at a German research institute – Laser system to remove sea lice from salmon, produced by a Norwegian engineering company – Plasters which can treat open wounds, developed in a Turkish university laboratory – Anti-lock braking system for pedal bikes, produced by an Italian firm	W2, U1, U2 K1

4	**Module 4 IP commercialisation** As an intangible asset, IP can be sold, leased, licensed, assigned or used as a security for investors and lenders. These are all examples of IP commercialisation, the process of bringing IP assets to the marketplace to be exploited for profit and business growth. This module explores mechanisms through which value can be extracted from IP and the considerations that should be taken - How IP can be commercialised – How to choose the right types of IP commercialisation – What it takes to come to a licence deal – How raising capital for a technology start-up is leveraged by patents; how it is a form of IP commercialisation and consequently important for the business success in general – Basics of valuing IP assets Case Studies: – Lely – cow-milking robot – AMSilk – spider silk fibres for shoes and nail polish – Lontra – blade air compressor – Perceive3D – imaging technology for surgeons – Optinose – curing airborne diseases – Baseclick – click chemistry – FLASH MRI – imaging of medical scans	W2, U1, U2, K1
5	**Module 5 Use of IPRs** IP covers a range of different technical fields, each with their own particularities. This module enables students to deepen their knowledge of IP and IP commercialisation based on a variety of case studies in a particular technical field. – Rationale for protecting inventions – Deciding on the appropriate IP strategy – Examples of successful patented inventions from different technical fields, including the benefits and challenges of patenting – The role of IP in business strategy and the commercialisation process Case Studies: – Programmable LEGO robotic toys – Gluten substitutes from corn – Perceive3D surgical navigation device – Stingray - eliminating sea lice from salmon fishing – Organic semiconductor – Modified mRNA – Green hydrogen from sunlight and air – Handheld manually guided effector – Fastener invention – PURE Cotton wax	W1, W2, W3, U1, U2, K1

Informacje rozszerzone

Metody nauczania:

wykład konwencjonalny, wykład z prezentacją multimedialną, konsultacje, rozwiązywanie zadań, analiza przypadków, dyskusja, burza mózgów, analiza tekstów.

Rodzaj zajęć	Formy zaliczenia	Warunki zaliczenia przedmiotu
lecture with multimedia presentation, consultations, case analysis, discussion, text analysis	Written exam and quizzes	80% the final marked exercise (5 questions, marked from 1 to 5), 10% the quizzes at the end of each Module, 10% the participation to the forum discussion. EPO certificate to be downloaded after completion of all activities

Wymagania wstępne i dodatkowe

knowledge of English at level B2

Europäisches Patentamt
European Patent Office
Office européen des brevets

50 years 1973 / 2023 EUROPEAN PATENT CONVENTION

Create-Protect-Innovate

Bringing ideas to market: Part II | 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
Module 1 Grant od patents	– End-to-end patent grant procedure – Patentability requirements at the EPO – Patentable subject-matter – Patent application requirements – Invention requirements – Amendments – Understanding claims and drafting	– Environmentally friendly closed-loop shower, invented by a European Inventor Award finalist – Turning pineapple leaves into a sustainable alternative to leather, invented by a European Inventor Award finalist – The toy ball patent	– There are different routes for filing a patent application and they are chosen by the applicant according to their business strategy in each case. – A patent application should be filed at the right moment, when enough information about the invention is already available and it has not yet been disclosed to anybody. – The claims define the invention. – Prior art means any disclosure available before the filing of a patent application. – Once filed, an application goes through different steps until grant. Post-grant opposition proceedings are possible and are centralised at the EPO. After the opposition period, patents can only be challenged in front of national courts. – Granted patents fulfil all the requirements of the EPC. – The grant or refusal of an application will follow communication between applicant and patent examiner. – The subject-matter defined by the granted claims will be new and inventive over the prior art. Specific methodologies exist for the assessment of these requirements. – Other important requirements are clarity, sufficiency of disclosure and unity. – Applicants are not allowed to improve their position by making amendments not disclosed in the application as filed. Well-drafted applications provide a basis for any necessary amendments.
Module 2 Enforcement of patents	– Patents and their role in business – What a patent protects ("scope" of a patent) – Introduction to the various types of patent infringement – Fundamental aspects of infringement proceedings – Validity of a patent as prerequisite for enforcement – Licensing – Alternatives to patent infringement proceedings	– Wind turbines and how to understand claims – The invention of wifi	– Patents are tools for securing business interests. – Enforcing a patent is entirely the responsibility of the applicant. – Use the independent claims to identify a potential infringer. – Identify the right party as the potential infringer. – There are many ways to enforce a patent and to resolve disputes. – There is more to gain than money. Think strategically – What to do when you are the infringer. – Always maintain dialogue with the other party.
Module 3 Scouting and assessment of technology	– What technology transfer is and how it works within a university/research laboratory setting – The role of a Technology Transfer Office – Assessment of who owns the rights to an invention – How to perform a technology search and why someone would want to	– Revolutionary magnetic resonance imaging (MRI) techniques, developed by researchers at a German research institute – Laser system to remove sea lice from salmon, produced by a Norwegian engineering company – Plasters which can treat open wounds, developed in a Turkish university laboratory – Anti-lock braking system for pedal bikes, produced by an Italian firm	– Technology transfer (TT) involves the movement of technology and know-how from one party to another. – TT can play a crucial role in the commercialisation of early stage ideas. – A Technology Transfer Office (TTO) is a unit specialising in TT. – They exist in many companies and most universities and research institutes. – Technology scouting is a useful tool in the evaluation of new technologies. – What to do when you are the infringer. – Always maintain dialogue with the other party.
Module 4 IP commercialisation	How IP can be commercialised – How to choose the right types of IP commercialisation – What it takes to come to a licence deal – How raising capital for a technology start-up is leveraged by patents; how it is a form of IP commercialisation and consequently important for the business success in general – Basics of valuing IP assets	– Lely – cow-milking robot – AMSilk – spider silk fibres for shoes and nail polish – Lontra – blade air compressor – Perceive3D – imaging technology for surgeons – Optinose – curing airborne diseases – Baseclick – click chemistry – FLASH MRI – imaging of medical scans	– IP commercialisation is an intrinsic part of the business model. – A business model will change when the company grows and so will the IP commercialisation. – Decisions regarding IP commercialisation can be structured and systematically assessed. – The most successful commercialisation decision is a balanced one that delivers value for all stakeholders. – Patents are assets, providing sustainable business value, but can also be tools for leveraging negotiations. – Marketing and negotiating are important skills for a start-up seeking monetisation. – The valuation of IP is a complicated challenge and is ultimately the result of negotiation. – Patents are the backbone of commercialisation by a technical venture.
Module 5 Use of IPRs	– Rationale for protecting inventions – Deciding on the appropriate IP strategy – Examples of successful patented inventions from different technical fields, including the benefits and challenges of patenting – The role of IP in business strategy and the commercialisation process	– Programmable LEGO robotic toys – Perceive3D surgical navigation device – Organic semiconductor – Green hydrogen from sunlight and air – Fastener invention – Gluten substitutes from corn – Stingray - eliminating sea lice from salmon fishing – Modified mRNA – Handheld manually guided effector – PURE Cotton wax	– There are different ways of commercialising IP. – Developing an IP strategy is key for the successful commercialisation of inventions. – Patents can be used to prevent others from copying your inventions. – Licensing is a key commercialisation strategy. – Patents can attract venture capital funds and investors.
Requirements	N/A		
Assessment	Test with multiple-choice questions at the end of each module. Active participation in live fora. Final exercise.		
Certification	EPO certificate to be downloaded after completion of all activities		

Create – Protect – Innovate
Bringing ideas to market
Part II

Module I: Grant of patents

Course info

Course code	TBA	Study mode	Self-paced
Category / Level	Advanced level	Duration	20 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

This module provides an overview of the patent grant procedure. The patentability requirements are explained with special emphasis on "novelty" and "inventive step". Case studies deal with the assessment of novelty and the "problem-solution approach".

Format

Learners can complete Module I independently 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 interactive activities based on real-life cases, quizzes and a multiple-choice exam at the end of the module. In addition, a wide variety of resources 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.

Target audience

Master's and PhD students.

Requirements

There are no formal requirements for participating in this course. Previous experience of e-learning is helpful, but not required.

Topics covered

- End-to-end patent grant procedure
- Patentability requirements at the EPO
- Patentable subject-matter
- Patent application requirements
- Invention requirements
- Amendments
- Understanding claims and drafting

Create – Protect – Innovate
Bringing ideas to market
Part II

Europäisches Patentamt
European Patent Office
Office européen des brevets

Module II: Enforcement of patents

Course info

Course code	TBA	Study mode	Self-paced
Category / Level	Advanced 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

A key aspect of patent protection is the understanding that it will be enforced in the event of infringement or the threat of infringement. This module provides an overview of the different means of enforcing patents and what a litigation procedure could look like. In addition, this module illustrates the possible alternatives that can be pursued if a less costly and less time-consuming solution is sought.

Format

Learners can complete Module II independently 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 interactive activities based on real-life cases, quizzes and a multiple-choice exam at the end of the module. In addition, a wide variety of resources 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.

Target audience

Master's and PhD students.

Requirements

There are no formal requirements for participating in this course. Previous experience of e-learning is helpful, but not required.

Topics covered

- Patents and their role in business
- What a patent protects ("scope" of a patent)
- Introduction to the various types of patent infringement
- Fundamental aspects of infringement proceedings
- Validity of a patent as prerequisite for enforcement
- Licensing
- Alternatives to patent infringement proceedings

Create – Protect – Innovate
Bringing ideas to market
Part II

Module III: Scouting and assessment of technology

Course info

Course code	TBA	Study mode	Self-paced
Category / Level	Advanced level	Duration	10 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

This module aims to teach students how to identify new and competing technologies that could affect their own inventions and business cases. Using current and past trends, it involves monitoring and predicting emerging technologies and identifying the technologies most likely to be disruptive in the future. It also covers technology transfer and the role of a Technology Transfer Office.

Format

Learners can complete Module III independently 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 interactive activities based on real-life cases, quizzes and a multiple-choice exam at the end of the module. In addition, a wide variety of resources 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.

Target audience

Master's and PhD students.

Requirements

There are no formal requirements for participating in this course. Previous experience of e-learning is helpful, but not required.

Topics covered

- What technology transfer is and how it works within a university/research laboratory setting
- The role of a Technology Transfer Office
- Assessment of who owns the rights to an invention
- How to perform a technology search and why someone would want to

Create – Protect – Innovate
Bringing ideas to market
Part II

Module IV: IP commercialisation

Course info

Course code	TBA	Study mode	Self-paced
Category / Level	Advanced level	Duration	20 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

As an intangible asset, IP can be sold, leased, licensed, assigned or used as a security for investors and lenders. These are all examples of IP commercialisation, the process of bringing IP assets to the marketplace to be exploited for profit and business growth. This module explores mechanisms through which value can be extracted from IP and the considerations that should be taken into account when choosing how to commercialise IP.

Format

Learners can complete Module IV independently 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 interactive activities based on real-life cases, quizzes and a multiple-choice exam at the end of the module. In addition, a wide variety of resources 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.

Target audience

Master's and PhD students.

Requirements

There are no formal requirements for participating in this course. Previous experience of e-learning is helpful, but not required.

Topics covered

- How IP can be commercialised
- How to choose the right types of IP commercialisation
- What it takes to come to a licence deal
- How raising capital for a technology start-up is leveraged by patents; how it is a form of IP commercialisation and consequently important the business success in general
- Basics of valuing IP assets

Create – Protect – Innovate
Bringing ideas to market
Part II

Module V: Use of IPRs

Course info			
Course code	TBA	Study mode	Self-paced
Category / Level	Advanced level	Duration	10 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

IP covers a range of different technical fields, each with their own particularities. This module enables students to deepen their knowledge of IP and IP commercialisation based on a variety of case studies in a particular technical field.

Format

Learners can complete Module V independently 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 interactive activities based on real-life cases, quizzes and a multiple-choice exam at the end of the module. In addition, a wide variety of resources 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.

Target audience

Master's and PhD students.

Requirements

There are no formal requirements for participating in this course. Previous experience of e-learning is helpful, but not required.

Topics covered

- Rationale for protecting inventions
- Deciding on the appropriate IP strategy
- Examples of successfully patented inventions from different technical fields, including the benefits and challenges of patenting
- The role of IP in business strategy and the commercialisation process