

MINISTRY OF HEALTH OF UKRAINE
BOGOMOLETS NATIONAL MEDICAL UNIVERSITY

GUIDELINES
to lectures

Academic discipline	Fundamentals of patent law
Branch of knowledge	22 “Health care”
Specialty	226 “Pharmacy, industrial pharmacy”
Specialization	226.01 “Pharmacy”
Department	Analytical, physical and colloid chemistry

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Developers:

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Lecture № 1 “General information about the intellectual property system”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02)

Goals:

1) *didactic goal* – to form systematized knowledge about the intellectual property system and the concept of “intellectual property” in the health care industry;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to know general information about the intellectual property system;

2) to classify intellectual property objects in health care sector.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that the field of intellectual property is one of the most dynamic and challenging of all legal specialties. The field of intellectual property is one	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	that continues its rapid growth.		
Main part	<p>1. Introduction to intellectual property law: 1) intellectual property defined, 2) history and evolution of intellectual property, 3) rationale for protection of intellectual property.</p> <p>2. Types of intellectual property: 1) trademarks and service marks, 2) copyrights, 3) patents, 4) trade secrets.</p> <p>3. Classify intellectual property objects in health care sector.</p>	<p>Acquire knowledge about the intellectual property law basics.</p> <p>Acquire basic knowledge about the types of intellectual property, namely their definitions and assignments.</p> <p>Consider examples of intellectual property objects in health care sector.</p>	30 minutes
Results	Highlight the importance of knowledge about intellectual property rights, because it fosters an environment that encourages innovation and creativity.	Summarize the presented material; emphasize the need for knowledge and understanding of intellectual property rights for the professional training of future masters of pharmacy.	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – P. 2-8. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. Llewelyn, D., & Aplin, T. Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights / Sweet & Maxwell. – London, 2019. – Points 1-004–

1.011. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Additional

1. Constitution of Ukraine: dated June 28, 1996 No. 254k/96-BP: as amended on 01.01.2020. URL: <https://zakon.rada.gov.ua/laws/show/254%D0%BA/96-%D0%B2%D1%80?lang=en#Text> (date of access: 25.07.2024).

2. About scientific and technical activities: Law of Ukraine dated December 13, 1991 No. 1977-XII: as amended on 24.12.2015. URL: <https://zakon.rada.gov.ua/laws/show/848-19?lang=en#Text> (date of access: 25.07.2024).

3. Public health, innovation and intellectual property rights : report of the Commission on intellectual Property Rights, Innovation and Public Health / World Health Organisation. – Geneva : WHO, 2006. – Chapter 1. URL: <https://likar.nmuofficial.com/md/course/view.php?id=7413> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/departament-medical-general-chemistry/>

2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>

3. <https://www.wipo.int/about-ip/en/>

Developers:

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Lecture № 2 “Protection of copyright and related rights”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02)

Goals:

1) *didactic goal* – to form systematized knowledge about the protection of copyright and related rights, to explain the concept of “copyright” in pharmacy and medicine;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to know general information about copyright and related rights;

2) to know rules of the protection to copyright and related rights;

3) to be able to identify the objects of copyright in pharmacy and medicine.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that copyright plays a crucial role in medicine and pharmacy, especially in the context of research, publishing, and the development of intellectual	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	property.		
Main part	<p>1. The subject matter of copyright: 1) originality of material, 2) fixation of material, 3) works of authorship.</p> <p>2. Concept of “copyright” in pharmacy and medicine.</p> <p>3. Protection of copyright and related rights: general provisions.</p>	<p>Acquire general knowledge about copyright laws.</p> <p>Consider examples of copyright objects in health care sector.</p> <p>Analyze Law of Ukraine “On copyright and related rights”.</p>	30 minutes
Results	<p>Highlight the importance of knowledge about copyright and related rights. Understanding and respecting copyright laws is essential in the pharmaceutical and medical fields, as it ensures that creators are rewarded for their contributions, encourages the ethical use of information, and supports the ongoing advancement of science and healthcare.</p>	<p>Summarize the presented material; emphasize the need knowledge and understanding of copyright laws for the professional training of future masters of pharmacy.</p>	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – P. 192-202. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. On copyright and related rights: Law of Ukraine dated 23.12.1993 No. 3792-XII: as amended on 15.12.2021. URL: <https://zakon.rada.gov.ua/laws/show/3792-12?lang=en#Text> (date of access: 25.07.2024).

Additional

1. Llewelyn, D., & Aplin, T. Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights / Sweet & Maxwell. – London, 2019. – Points 10-001–10.019. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. About scientific and technical activities: Law of Ukraine dated December 13, 1991 No. 1977-XII: as amended on 24.12.2015. URL: <https://zakon.rada.gov.ua/laws/show/848-19?lang=en#Text> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/department-medical-general-chemistry/>

2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>

3. <https://www.wipo.int/copyright/en/>

Questions for student self-preparation for the lecture

1. Works of autorship.

2. General provisions of Law of Ukraine “On copyright and related rights”.

Developers:

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Galyna Zaitseva – Head of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor.

Lecture № 3 “Protection of rights to inventions and utility models”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02)

Goals:

1) *didactic goal* – to form systematized knowledge about the inventions and utility models, protection of rights to inventions and utility models;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to know general information about the inventions and utility models;

2) to explain difference between inventions and utility models;

2) to know rules of the protection to inventions and utility models.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that inventions and utility models play a significant role in driving innovation, economic growth, and improving healthcare in the fields of medicine and	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	pharmacy.		
Main part	<p>1. Foundations of patent law: patentability, patentable subject matter – utility patents, usefulness, novelty.</p> <p>2. Difference between inventions and utility models.</p> <p>3. Protection of inventions and utility models: general provisions.</p>	<p>Acquire general knowledge about the inventions and utility models.</p> <p>Consider more detailed characteristics of inventions and utility models and highlight differences between them.</p> <p>Analyze Law of Ukraine “About protection of the rights to inventions and utility models”.</p>	30 minutes
Results	Highlight that inventions and utility models are pivotal in the advancement of medicine and pharmacy. They protect intellectual property, encourage innovation, support economic growth, and contribute to the improvement of public health and patient care globally.	Summarize the presented material; emphasize the need knowledge about inventions and utility models for the professional training of future masters of pharmacy.	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – P. 334-349. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. About protection of the rights to inventions and utility models: Law of Ukraine dated December 15, 1993 No. 3684-XII: as amended on 15.06.2020. URL: <https://zakon.rada.gov.ua/laws/show/3687-12?lang=en#Text> (date of access: 25.07.2024).

Additional

1. Llewelyn, D., & Aplin, T. Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights / Sweet & Maxwell. – London, 2019. – Points 3-036–3.054. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. About scientific and technical activities: Law of Ukraine dated December 13, 1991 No. 1977-XII: as amended on 24.12.2015. URL: <https://zakon.rada.gov.ua/laws/show/848-19?lang=en#Text> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/department-medical-general-chemistry/>

2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>

3. <https://www.wipo.int/web/patents>

Questions for student self-preparation for the lecture

1. Objects of the invention, utility model.
2. Criteria of patentability of invention, utility model.

Developers:

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Lecture № 4 “Inventions and utility models in pharmacy and medicine”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02).

Goals:

1) *didactic goal* – to reveal information about the importance and relevance of inventions and utility models in pharmacy and medicine;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to explain the importance and relevance of inventions and utility models in pharmacy and medicine;

2) to show the examples of inventions and utility models in pharmacy and medicine.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that inventions and utility models are vital in medicine and pharmacy as they drive innovation, protect	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	intellectual property, and contribute to the advancement of healthcare.		
Main part	Explain and discuss why inventions and utility models are important in medicine and pharmacy: 1) innovation and advancement, 2) intellectual property protection, 3) encouraging research and development, 4) commercialization and market exclusivity, 5) public health impact, 6) regulatory compliance and safety.	Prove the significance of inventions and utility models for health care sector.	30 minutes
Results	Highlight that inventions and utility models are fundamental to the progress of medicine and pharmacy. They protect and incentivize innovation, ensure the commercialization of new technologies, and ultimately contribute to the betterment of public health.	Summarize the presented material; emphasize the need knowledge about inventions and utility models for the professional training of future masters of pharmacy.	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – P. 334-349. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. Public health, innovation and intellectual property rights : report of the Commission on intellectual Property Rights, Innovation and Public Health / World Health Organisation. – Geneva : WHO, 2006. – Chapter 1. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Additional

1. About protection of the rights to inventions and utility models: Law of Ukraine dated December 15, 1993 No. 3684-XII: as amended on 15.06.2020. URL: <https://zakon.rada.gov.ua/laws/show/3687-12?lang=en#Text> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/department-medical-general-chemistry/>
2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>
3. <https://www.wipo.int/web/patents>

Questions for student self-preparation for the lecture

1. Role of patents in the development of pharmacy and medicine.
2. Objects of inventions and utility models in pharmacy and medicine.

Developers:

Yaroslava Pushkarova – Associate Professor of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor,

Galyna Zaitseva – Head of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor.

Lecture № 5 “Protection of rights to industrial designs”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02).

Goals:

1) *didactic goal* – to form systematized knowledge about the industrial designs, protection of rights to industrial designs;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to know general information about the industrial designs;

2) to know rules of the protection to industrial designs.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that protection of an industrial design contributes to economic development, activating artistic creativity in industry and production, as well as in traditional spheres of art and artistic crafts.	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

Main part	<p>1. Objects of industrial designs: shape, drawing, coloring or their combination, which determine the appearance of an industrial product and are intended to satisfy aesthetic and ergonomic needs.</p> <p>2. Protection of industrial designs: general provisions.</p>	<p>Acquire general knowledge about the industrial designs.</p> <p>Analyze Law of Ukraine “About protection of the rights to industrial designs”.</p>	30 minutes
Results	<p>Highlight that industrial designs are primarily those elements incorporated into massproduced products that aim to enhance their attractiveness by their appearance. Today when so many consumer products are technically very similar, design becomes an important distinguishing factor, often not easily separated in the minds of purchasers and users from trade marks and similar symbols.</p>	<p>Summarize the presented material; emphasize the need knowledge about industrial designs for the professional training of future masters of pharmacy.</p>	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Llewelyn, D., & Aplin, T. Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights / Sweet & Maxwell. – London, 2019. – Chapter 15. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. About protection of the rights to industrial designs: Law of Ukraine dated December 15, 1993 No. 3688-XII: as amended on 16.06.2020. URL: <https://zakon.rada.gov.ua/laws/show/3688-12?lang=en#Text> (date of access: 25.07.2024).

Additional

1. About scientific and technical activities: Law of Ukraine dated December 13, 1991 No. 1977-XII: as amended on 24.12.2015. URL: <https://zakon.rada.gov.ua/laws/show/848-19?lang=en#Text> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/department-medical-general-chemistry/>
2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>
3. <https://www.wipo.int/designs/en/>

Questions for student self-preparation for the lecture:

1. Objects of industrial design.
2. Criteria for protection capability of an industrial model.

Developers:

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Lecture № 6 “Industrial designs in pharmacy and medicine”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02).

Goals:

1) *didactic goal* – to reveal information about the importance and relevance of industrial designs in pharmacy and medicine;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to explain the importance and relevance of industrial designs in pharmacy and medicine;

2) to show the examples of industrial designs in pharmacy and medicine.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that industrial designs are significant in medicine and pharmacy because they contribute to the aesthetic, functional, and ergonomic aspects of medical devices, packaging, and	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	pharmaceutical products.		
Main part	<p>Explain and discuss why industrial designs are important in medicine and pharmacy:</p> <ol style="list-style-type: none"> 1) aesthetics and user appeal, 2) functionality and usability, 3) patient safety and compliance, 4) innovation in medical devices, 5) regulatory compliance, 6) sustainability and environmental impact, 7) market competitiveness. 	Prove the significance of industrial designs for health care sector.	30 minutes
Results	<p>Highlight that industrial designs are crucial in medicine and pharmacy as they enhance the aesthetics, functionality, safety, and marketability of medical devices and pharmaceutical products. By focusing on design, companies can improve patient outcomes, build brand loyalty, and comply with regulatory standards, all while contributing to the overall advancement of healthcare.</p>	Summarize the presented material; emphasize the need knowledge about industrial designs for the professional training of future masters of pharmacy.	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Llewelyn, D., & Aplin, T. Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights / Sweet & Maxwell. – London, 2019. – Chapter 15. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. Public health, innovation and intellectual property rights : report of the Commission on intellectual Property Rights, Innovation and Public Health / World Health Organisation. – Geneva : WHO, 2006. – Chapter 4. URL:

<https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Additional

1. About protection of the rights to industrial designs: Law of Ukraine dated December 15, 1993 No. 3688-XII: as amended on 16.06.2020. URL: <https://zakon.rada.gov.ua/laws/show/3688-12?lang=en#Text> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/departament-medical-general-chemistry/>
2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>
3. <https://www.wipo.int/designs/en/>

Questions for student self-preparation for the lecture:

1. Role of industrial designs in the development of pharmacy and medicine.
2. Objects of industrial designs in pharmacy and medicine.

Developers:

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Lecture № 7 “Protection of rights to trademarks for goods and services”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02).

Goals:

1) *didactic goal* – to form systematized knowledge about the trademarks for goods and services, protection of rights to trademarks for goods and services;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to know general information about the trademarks for goods and services;

2) to know rules of the protection to trademarks for goods and services.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that trademarks surround us every day and help us make valuable and informed decisions about the products and services we purchase.	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes
Main part	1. Foundations of trademark	Acquire general	30

	<p>law:</p> <p>1) purpose and function of trademarks, 2) types of marks: trademarks, service marks, certification marks, and collective marks, 3) acquisition of trademark rights.</p> <p>2. Protection of trademarks: general provisions.</p>	<p>knowledge about the trademarks.</p> <p>Analyze Law of Ukraine “About protection of the rights to trademarks for goods and services”.</p>	minutes
Results	Highlight that trademarks perform two critical functions: they provide assurance that goods are of a certain quality and consistency and they assist consumers in making decisions about the purchase of goods.	Summarize the presented material; emphasize the need knowledge about trademarks for the professional training of future masters of pharmacy.	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – Chapter 18. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. About protection of the rights to trademarks for goods and services: Law of Ukraine dated December 15, 1993 No. 3689-XII: as amended on 16.06.2020. URL: <https://zakon.rada.gov.ua/laws/show/3689-12?lang=en#Text> (date of access: 25.07.2024).

Additional

1. About scientific and technical activities: Law of Ukraine dated December 13, 1991 No. 1977-XII: as amended on 24.12.2015. URL: <https://zakon.rada.gov.ua/laws/show/848-19?lang=en#Text> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/department-medical-general-chemistry/>
2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>
3. <https://www.wipo.int/trademarks/en/>

Questions for student self-preparation for the lecture:

1. Trademark objects.
2. Criteria for protection capability of a trademark.

Developers:

Yaroslava Pushkarova – Associate Professor of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor,

Galyna Zaitseva – Head of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor.

Lecture № 8 “Trademarks for goods and services in pharmacy and medicine”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02).

Goals:

1) *didactic goal* – to reveal information about the importance and relevance of trademarks in pharmacy and medicine;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to explain the importance and relevance of trademarks in pharmacy and medicine;

2) to show the examples of trademarks in pharmacy and medicine.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that trademarks are critically important in medicine and pharmacy because they protect brand identity, ensure product recognition,	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	and contribute to consumer trust and safety.		
Main part	Explain and discuss why trademarks are important in medicine and pharmacy: 1) brand identity and recognition, 2) consumer protection and safety, 3) market exclusivity and competitive advantage, 4) regulatory compliance, 5) marketing and brand loyalty, 6) legal protection and enforcement, 7) innovation and investment.	Prove the significance of trademarks for health care sector.	30 minutes
Results	Highlight that trademarks are essential in the medicine and pharmacy sectors for protecting brand identity, ensuring consumer safety, and maintaining market exclusivity. They contribute to the overall success and sustainability of pharmaceutical companies, allowing them to build trust, foster brand loyalty, and compete effectively in the global market.	Summarize the presented material; emphasize the need knowledge about trademarks for the professional training of future masters of pharmacy.	5 minutes
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – Chapters 7 and 8. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Additional

1. About protection of the rights to trademarks for goods and services: Law of Ukraine dated December 15, 1993 No. 3689-XII: as amended on 16.06.2020.

URL: <https://zakon.rada.gov.ua/laws/show/3689-12?lang=en#Text> (date of access: 25.07.2024).

2. Papadopoulou, F. Evergreening Patent Exclusivity in Pharmaceutical Products: Supplementary Protection Certificates, Orphan Drugs, Paediatric Extensions and ATMPs / Bloomsbury Publishing. – USA, 2021. – Chapter 3. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/department-medical-general-chemistry/>
2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>
3. <https://www.wipo.int/trademarks/en/>

Questions for student self-preparation for the lecture:

1. Role of trademarks in the development of pharmacy and medicine.
2. Objects of trademarks in pharmacy and medicine.

Developers:

Yaroslava Pushkarova – Associate Professor of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor,

Galyna Zaitseva – Head of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor.

Lecture № 9 “Licensing of intellectual property rights”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02).

Goals:

1) *didactic goal* – to form systematized knowledge about licensing of intellectual property rights and its importance in pharmacy and medicine;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to explain features of different types of licensing agreements and licensing fees;

2) to explain the importance of licensing in development of pharmacy and medicine.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that licensing is crucial in medicine and pharmacy for several reasons, including fostering innovation, enabling access to new technologies, and facilitating	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	business growth.		
Main part	<p>1. Types of licensing agreements:</p> <ol style="list-style-type: none"> 1) exclusive licensing agreements, 2) non-exclusive licensing agreements, 3) cross-licensing licensing agreements, 4) royalty-free licensing agreements, <p>2. Types of licensing fees:</p> <ol style="list-style-type: none"> 1) upfront fees, 2) royalty fees, 3) minimum fees, 4) usage fees, 5) annual fees. <p>Explain and discuss why licensing is important in medicine and pharmacy:</p> <ol style="list-style-type: none"> 1) access to innovation and technology, 2) market expansion and entry, 3) revenue generation, 4) speeding up product development, 5) facilitating research and development, 6) strategic partnership, 7) fostering competition and innovation. 	<p>Acquire general knowledge about the features of different types of licensing agreements.</p> <p>Acquire general knowledge about the features of different types of licensing fees.</p> <p>Prove the significance of licensing for health care sector.</p>	30 minutes
Results	Highlight that licensing is a powerful tool in the medicine and pharmacy sectors, enabling the commercialization of innovations, facilitating market entry, generating revenue, and fostering partnerships. It plays a crucial role in driving the growth and development of	Summarize the presented material; emphasize the need knowledge about licensing for the professional training of future masters of pharmacy.	5 minutes

	new medical products and technologies, ultimately benefiting both companies and consumers.		
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Llewelyn, D., & Aplin, T. Intellectual Property: Patents, Copyright, Trade Marks and Allied Rights / Sweet & Maxwell. – London, 2019. – Chapter 2. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Additional

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – Chapter 5. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

2. Public health, innovation and intellectual property rights : report of the Commission on intellectual Property Rights, Innovation and Public Health / World Health Organisation. – Geneva : WHO, 2006. – Chapter 2. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/department-medical-general-chemistry/>
2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>
3. <https://www.wipo.int/sme/en/assignment-licensing.html>

Questions for student self-preparation for the lecture:

1. Types of licensing agreements.
2. Types of licensing fees.

Developers:

Yaroslava Pushkarova – Associate Professor of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor,

Galyna Zaitseva – Head of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor.

Lecture № 10 “Patent and scientific information in the development and creation of industrial property objects in pharmacy and medicine”.

Type of lecture: traditional (informational).

Competencies:

– **integral competence:** ability to solve tasks of research and/or innovative nature in the field of pharmacy;

– **general competencies (GC):**

1. Ability for abstract thinking, analysis and synthesis (GC 01).

2. Knowledge and understanding of the subject area; understanding of professional activity (GC 02).

3. Ability to work in a team (GC 06).

– **professional competences of the specialty (PC):**

1. Ability to integrate knowledge and solve complex problems of pharmacy / industrial pharmacy in broad or multidisciplinary contexts (PC 01).

2. The ability to collect, interpret and apply data necessary for professional activity, carrying out research and implementation of innovative projects in the field of pharmacy (PC 02).

Goals:

1) *didactic goal* – to form systematized knowledge about patent databases and databases of scientific and technical information;

2) *educational goal* – to promote the formation of a scientific outlook, increase the level of legal culture of the individual;

3) *development goal* – to develop intellectual abilities, thinking, independence.

Lecture equipment: multimedia system, appropriate software.

Tasks of the lecture:

1) to discuss the resources for patent information;

2) to discuss the databases of scientific and technical information;

3) to explain the importance of patent and scientific information databases in development of pharmacy and medicine.

Lecture plan:

Stage of the lecture	Content of stages	Educational purpose of the stage	Time
Introduction	Present information that importance of patents and scientific information in the development of pharmacy	Reveal the relevance of the topic of the lecture; familiarize students with the lecture plan.	5 minutes

	and medicine is profound, as they drive innovation, protect intellectual property, and facilitate the advancement of healthcare.		
Main part	<p>1. National and international patent databases: Ukrpatent, Google Patents, Espacent, Patentscope by WIPO and others.</p> <p>2. Databases of scientific and technical information: PubMed, Embase, Cochrane library, Scopus, Web of science, INSPEC and others.</p> <p>3. Explain and discuss why patent and scientific information is important in medicine and pharmacy: 1) encouraging innovation, 2) protecting intellectual property, 3) facilitating scientific advancement, 4) enabling evidence-based medicine, 5) enhancing public health, 6) supporting economic growth, 7) fostering global competitiveness, 8) ensuring ethical development, 9) guiding policy and regulation, 10) enabling future research.</p>	<p>Acquire general knowledge about the most important patent databases.</p> <p>Acquire general knowledge about the most important databases of scientific and technical information.</p> <p>Prove the significance of resources of patent and scientific information for health care sector.</p>	30 minutes
Results	Highlight that patents and scientific information are indispensable in the development of pharmacy and medicine. They encourage innovation,	Summarize the presented material; emphasize the need knowledge about patent and scientific information databases	5 minutes

	protect intellectual property, support the dissemination of knowledge, and contribute to the advancement of healthcare. These tools ensure that new treatments, technologies, and medical practices are developed and made available to improve public health and patient care worldwide.	for the professional training of future masters of pharmacy.	
Answers to questions	Active dialogue / discussion.	Explain the most difficult and unclear points of the lecture.	5 minutes

Recommended literature:

Basic

1. Bouchoux, D. E. Intellectual property: the law of trademarks, copyrights, patents, and trade secrets / Delmar, Cengage Learning. – USA, 2013. – Chapter 18. URL: <https://likar.nmu.kiev.ua/md/course/view.php?id=7413> (date of access: 25.07.2024).

Additional

1. Public health, innovation and intellectual property rights : report of the Commission on intellectual Property Rights, Innovation and Public Health / World Health Organisation. – Geneva : WHO, 2006. – Chapter 5. URL: <https://likar.nmuofficial.com/md/course/view.php?id=7413> (date of access: 25.07.2024).

Information resources

1. <https://nmuofficial.com/en/zagalni-vidomosti/kafedri/departament-medical-general-chemistry/>
2. <https://likar.nmu.kiev.ua/md/course/view.php?id=7413>
3. <https://patentscope.wipo.int/search/en/search.jsf>

Questions for student self-preparation for the lecture:

1. Resources of finding patent information.
2. The most important databases of scientific and technical information.

Developers:

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Galyna Zaitseva – Head of the Analytical, Physical and Colloid Chemistry Department, PhD, Associate Professor.