Національний технічний університет України
«КИЇВСЬКИЙ ПОЛІТЕХНІЧНИЙ ІНСТИТУТ
імені ІГОРЯ СІКОРСЬКОГО»

Кафедра органічної хімії та технології органічних речовин

[O_MN_2024_EN1] SCIENTIFIC WRITING: FROM FUNDING APPLICATION TO REPORT

Робоча програма навчальної дисципліни (Силабус)

Реквізити навчальної дисципліни

Рівень вищої освіти	Другий (магістерський)
Галузь знань	-
Спеціальність	
Освітня програма	Всі ОП
Статус дисципліни	Вибіркова (Ф-каталог)
Форма здобуття вищої освіти	Очна
Рік підготовки, семестр	Доступно для вибору починаючи з 1-го курсу, весняний семестр
Обсяг дисципліни	4 кред. ()
Семестровий контроль/контрольні заходи	0
Розклад занять	https://schedule.kpi.ua
Мова викладання	Українська
Інформація про керівника курсу / викладачів	
Розміщення курсу	

Програма навчальної дисципліни

1. Опис навчальної дисципліни, її мета, предмет вивчання та результати навчання

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1.1. The purpose of the educational discipline.

The purpose of the educational discipline is to form following students' abilities:

Ability to search, process and analyze information from various sources (K-3)

The ability to keep documentary support of inventive activity,

examination and legal protection of intellectual property objects (K-4)

The ability to conduct professional, including research activities in

international environment (K-6)

1.2 The main tasks of the academic discipline.

According to the requirements of the educational and professional program of the academic discipline students, after mastering the academic discipline, must demonstrate the following learning outcomes:

Communicate freely in national and foreign languages orally and in writing for

discussion and presentation of the results of professional activity, research and

projects (PR 5);

Carry out in scientific and technical literature, patents, databases, others

sources to search for the necessary information on chemical technology, processes and

equipment for the production of chemicals and materials based on them,

systematize, and analyze and evaluate relevant information (PR 7).

2. Пререквізити та постреквізити дисципліни (місце в структурно-логічній схемі навчання за відповідною освітньою програмою)

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Interdisciplinary connections: The material of the credit module is based on the disciplines "Organic Chemistry", "General and Inorganic Chemistry", "Physical Chemistry", "Physics"

The list of disciplines, knowledge and skills, the possession of which is necessary for a student to successfully master the discipline:

Physics	Electromagnetic waves, their formation and propagation. Light as an electromagnetic wave, Propagation, absorption and scattering of light. Quantum properties of light. Scale of electromagnetic waves. Properties of electromagnetic waves of different ranges. Emission and absorption of electromagnetic radiation by atoms and molecules

General and inorganic chemistry	Valency of inorganic compounds, molecular orbitals of simple homo- and heteronuclear molecules, hybridization. Spatial structure of inorganic molecules and ions, structural or graphic images of inorganic compounds.
Organic chemistry	Valency of organic compounds, molecular orbitals of simple organic molecules, hybridization. Spatial structure of organic molecules, cations, anions, radicals, structural images of organic compounds. Named organic reactions.

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3. Зміст навчальної дисципліни

Topic 1. The concept of scientific research, content and components of the scientific research process.

Topic 2. Informational provision of scientific work. Documentary literature. Periodicals. Leading scientific editors.

Topic 3. Information support of scientific work. Scientific databases.

Topic 4. The process of reviewing scientific publications.

Topic 5. Content and components of the research process. Writing an application for financing a scientific work.

Topic 6. Content and components of the research process. Writing a review.

Topic 7. Content and components of the research process. Preparation of a scientific manuscript.

Topic 8. Content and components of the research process. Preparation of a review of a scientific paper.

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4. Навчальні матеріали та ресурси

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The educational materials listed below are available in the university library and in the library of the Department of Organic Chemistry and Technology of Organic Substances. Basic literature is mandatory for study, other materials are optional. The teacher notes the sections and topics that the student should familiarize himself with during lectures and practical classes. **Basic:**

Fokin A.A., Zhuk T. S. Scientific Writing: From Grant Proposal to the Report, Навчальний посібник. – 153 с.

Стеченко Д. М. Методологія наукових досліджень. Київ:Знання, 2007. – 317 с.

Білуха М. Т. Основи наукових досліджень. Київ: Вища школа, 1997. – 271 с.

Цехмістрова Г.С. Основи наукових досліджень. Навчальний посібник. – Київ. Видавничий Дім «Слово», 2004. - 240 с. ISBN 966-8407-10-5.

Бідасюк Н. Заголовок наукової статті англійською мовою без помилок. Вища школа. - 2019. - № 12. ISSN 1682-2366.

Дюканова Н. М., Никонорова Л. І. Стилістичні особливості написання наукової статті англійською мовою / Н. М. Дюканова, Л. І. Никонорова // Науковий вісник Волинського національного університету імені Лесі Українки. Серія: Філологічні науки, 2010. - Вип. 9. - С. 186-190.

Additional:

Sections of classic monographs, modern specialized monographs, reviews from peer-reviewed journals (Chem. Rev., Acc. Chem. Res., Chem. Soc. Rev., etc.), original journal articles (in English) are provided.

Навчальний контент

5. Методика опанування навчальної дисципліни (освітнього компонента)

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Reading of lectures on the discipline is conducted in parallel with students' completion of individual tasks and their consideration of issues submitted for independent work. When giving lectures in mixed learning, video conferencing tools (Google Meet, Zoom, etc.) and illustrative material in the form of presentations are used to communicate to listeners via chat. After each lecture, it is recommended to familiarize yourself with the materials recommended for independent study, and before the next lecture, repeat the material of the previous one. Each student receives an individual task in the form of an original article on the topic of the lecture.

Lecture 1. Content and components of the research process: General aspects.

Lecture 2. Content and components of the research process: Modern trends.

Lecture 3. Content and components of the research process. Positions of Ukraine and KPI in the scientific world.

Lecture 4. Scientific literature. Periodicals. Leading scientific editors.

Lecture 5. Scientific literature. Monographs. Leading scientific editors.

Lecture 6. Scientific databases: General aspects.

Lecture 7. Scientific databases. Positions of Ukraine and KPI.

Lecture 8. The process of reviewing scientific publications: General aspects

Lecture 9. Peer-review process.

Lecture 10. Preparation of a review of a scientific work: General aspects

Lecture 11. Preparation of a review of a scientific work. Modern trends.

Lecture 12. Writing an application for financing a scientific work. International institutions.

Lecture 13. Writing an application for financing a scientific work. Local institutions.

Lecture 14. Preparation of a scientific manuscript: Article.

Lecture 15. Preparation of a scientific manuscript: Monograph.

Lecture 16. Presentation of scientific results. Scientific report.

Lecture 17. Preparation of a scientific report.

Lecture 18. Final session. Summary of results.

Practical classes

Practical work aims to teach students to independently evaluate the role of reaction intermediates in specific chemical transformations through problem solving.

Practical lessons 1-6. Work on the application for financing (in English).

Practical classes 7-12. Reviewing the manuscript of a scientific article (in English).

Practical classes 13-18. Work on a scientific report (in English)

Student's independent work

The student's independent work (SIW) during the semester includes repeating the lecture material, mastering the theoretical material assigned for independent self-study, completing individual tasks, and preparing for the test. The recommended number of hours allocated to preparation for the specified types of work.

Type of SIW, number of training hours

Preparation for classroom classes: repetition of lecture material, compilation of preliminary versions of programs for conducting calculations in classes, preparation of reports 1-3 hours per week.

Performance of individual tasks 50 hours

Preparation for MKR (repetition of material) 3 hours

Preparation for the test is 13 hours

6. Самостійна робота студента

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Політика та контроль

7. Політика навчальної дисципліни (освітнього компонента)

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All requirements do not contradict the legislation of Ukraine and correspond to the regulatory documents of the University. In the normal mode of work of the university, lectures and laboratory classes are held in classrooms. In the mixed mode, lecture classes are conducted through the distance learning platform. At the beginning of each lecture, the lecturer can conduct a survey based on the materials of the previous lecture using interactive tools (Google Forms). Before the start of the next topic, the lecturer can send questions using interactive tools in order to determine the level of knowledge of the applicants on the given topic, increase interest and involve the listeners in solving the examples. After checking the assignment by the teacher for defense, a general grade is given and the work is considered defended.

Untimely protection and performance of work without a valid reason are penalized in accordance with the rules for assigning incentive and penalty points.

Rules for assigning incentive and penalty points:

Late completion of a practical task without a valid reason is penalized by 1 point;

The policy of deadlines and rescheduling: determined by clause 8 of the Regulation on current, calendar and semester control of study results at KPI named after Igor Sikorsky

Academic Integrity Policy: Determined by the Academic Integrity Policy and other provisions of the University's Honor Code.

8. Види контролю та рейтингова система оцінювання результатів навчання (РСО)

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Таблиця відповідності рейтингових балів оцінкам за університетською шкалою

Кількість балів	Оцінка
100-95	Відмінно
94-85	Дуже добре
84-75	Добре
74-65	Задовільно
64-60	Достатньо
Менше 60	Незадовільно
Не виконані умови допуску	Не допущено

9. Додаткова інформація з дисципліни (освітнього компонента)

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Опис матеріально-технічного та інформаційного забезпечення дисципліни

Робочу програму навчальної дисципліни (силабус):
Складено
Ухвалено кафедрою ОХТОР (протокол № _10_____ від 26.06.2025____)
Погоджено методичною комісією факультету/ННІ (протокол № __14____ від _27.06.2025__)