



PEDAGOGICAL PRACTICE

Educational component work program (Syllabus)

Details of the discipline

Level of higher education	<i>Third (educational and scientific)</i>
Branch of knowledge	<i>18 Production and technology</i>
Specialty	<i>184 Mining</i>
Educational program	<i>Geoengineering</i>
Discipline status	<i>Normative</i>
Form of study	<i>full-time / full-time / distance / mixed</i>
Year of preparation, semester	<i>2nd year, spring</i>
The scope of discipline	<i>2 credits / 60 hours</i>
Semester control / control measures	<i>Offset in the form of report protection</i>
Timetable	
Language of instruction	<i>Ukrainian</i>
Information about course leader / teachers	<i>Вовк Оксана Олексіївна</i>
Course placement	

Curriculum of the discipline

1. Description of the discipline, its purpose, subject of study and learning outcomes

Pedagogical practice in the system of higher education at the third educational and scientific level is a component of professional training for scientific and pedagogical activity. This is a type of practical activity of graduate students in the implementation of the educational process in higher education.

The basis of the internship is the Department of Geoengineering of IEE KPI named after Igor Sikorsky, which is assigned to graduate students. Subject of practice: teaching activities in higher education institutions.

The purpose of pedagogical practice is to form professional pedagogical competence in the process of ensuring the teaching of academic disciplines to obtain universal competencies of the researcher.

The main tasks of pedagogical practice:

Competencies:

- Ability to critically analyze, evaluate and synthesize new and complex ideas;*
- Ability to acquire knowledge, skills and abilities necessary for the professional pedagogical activity of a teacher of freelance education.*

- Ability to organize, prepare and conduct various forms of teaching, analysis and evaluation of methods of conducting classes (lectures, practical, laboratory) with students ZVO.

Program learning outcomes.

- Have advanced conceptual and methodological knowledge in mining and subject areas, as well as research skills sufficient to conduct scientific and applied research at the level of the latest world achievements in the field, gain new knowledge and / or innovate.

- Freely present and discuss with experts and non-specialists the results of research, scientific and applied problems of mining in state and foreign languages, qualified to reflect the results of research in scientific publications in leading international scientific journals.

- Be able to apply knowledge of the basics of analysis and synthesis in various subject areas, critical thinking and solving research problems; understand the philosophical concepts of the scientific worldview, the role of science, explain its impact on social processes; be able to formulate and test hypotheses;

- Apply the basic concepts and categories of pedagogy and teaching methods in higher education; have pedagogical principles and features of the educational process in higher education, the content of activities and functions of the teacher (educational, pedagogical, diagnostic, organizational, educational); analyze their own pedagogical activities and, if necessary, adjust it.

2. Prerequisites and postrequisites of the discipline (place in the structural and logical scheme of education according to the relevant educational program)

The pedagogical practice of graduate students is the final stage of the educational component, which is based on general and professional competencies that provide general scientific, linguistic and universal training.

3. The content of the discipline

60 hours / 2 ECTS credits are planned for pedagogical practice. It includes lectures and practical classes, independent work of graduate students and credit.

Semester	Credit module code	Total (credit / hour)	Individual work	Semester control
3	ПО2	2/60	60	Offset in the form of report protection

4. Training materials and resources

Basic:

1. Закон України «Про вищу освіту» від 01.07.2014 No 1556-VII // Голос України. – 6 серпня 2014.
2. Кайдалова Л. Г., Щокіна Н. Б., Вахрушева Т. Ю. Педагогічна майстерність викладача: Навчальний посібник. – Х.: Вид-во НФаУ, 2009. – 140 с.
3. Теорія і методика професійної освіти: навч. Посіб. / З.Курлянд, Т.Осипова, Гурін та ін. ; за ред. З. Курлянд. – К.: Знання, 2012. – 390 с.
4. Буркова Л. Класифікація інновацій в освіті // Теорія та методика управління освітою – 2010. – N 4 [Електронний ресурс] – Режим доступу: <http://tme.umo.edu.ua>
5. Буряк В. Викладач університету: вимоги до особистісних і професійних рис / Володимир Буряк // Вища школа. – 2010. - No3-4. – С.11-35.

Additional:

6. Алексюк А.М. Педагогіка вищої освіти України : Історія. Теорія : Підручник для студентів, аспірантів та молодих викладачів вузів / А.М. Алексюк // Міжнародний фонд «Відродження». – К. : Либідь, 1998. – 560 с.
7. Булах І. Комп'ютерна діагностика навчальної успішності / І. Булах. – К.: ЦМК МОЗ України; УДМУ, 1993. – 221 с.

5. *Васянович Г. Сучасні аспекти педагогічної етики вчителя / Г.Васянович // Проблеми сучасної педагогічної освіти: педагогіка і психологія: Збірник наукових праць / редколегія: О.Глузман (гол. ред.) та ін. – Ялта. – 2005. – Вип. 8. – Ч.1. – С. 3-5.*
6. *Вітвицька С.С. Основи педагогіки вищої школи : Методичний посібник для студентів магістратури / С.С. Вітвицька. – Київ : Центр навчальної літератури, 2006. – 386 с.*
7. *Жуков Г.Н. Общая и профессиональная педагогика: учебник / Г.Н. Жуков, П.Г. Матросов. – М.: Альфа-М:НИЦ ИНФА-М, 2013. – 448 с.*
8. *Зварич І. Тестування педагогічної компетентності викладачів США / І. Зварич // Вища освіта України. – 2012. - №4. – С.92 – 99.*
9. *Згуровський М. Основні завдання вищої освіти України щодо реалізації принципів Болонського процесу та забезпечення вимог сфери праці // Вища школа: науково-практичне видання. - № 5-6, 2004. – С. 54-61.*
10. *Методологія наукової діяльності : навч. посіб. / Д.В.Чернілевський, М.І.Тимчук, О.А.Дубасенюк, О.Є. Антонова та інші ; за ред. Д. В. Чернілевського. – Вінниця : Нілен – ЛТД, 2012. – 364 с.*
11. *Національна стратегія розвитку освіти в Україні на 2012-2021 роки [Електронний ресурс] Режим доступу: <http://www.mon.gov.ua>*
12. *Нечепоренко Л. Педагогічна майстерність: [монографія] / Л. Нечепоренко. – Х.:ХНУ,2009. – 296 с.*
13. *Осин А.В. Мультимедиа в образовании: контекст информатизации. / А.В. Осин. – М.: ООО «РИТМ», 2005. - 320 с.*
14. *Педагогічна майстерність : Підручник / І.А. Зязюн, Л.В. Крамущенко, І.Ф. Кривонос та ін. /За ред. І.А. Зязюна/. – К. : Вища шк., 1997. – 349 с.*
15. *Педагогічні технології в неперервній освіті : монографія /С.О.Сисоєва, А.М. Олексюк, П.М. Воловик, О.І. Кульчицька та ін.; за ред. С.О.Сисоєвої. – К.: Віпол, 2001. – 502 с.*
16. *Полат Е.С.. Современные педагогические и информационные технологии в системе образования: учебное пособие / Е.С. Полат, М.Ю.Бухаркина. – 3-е изд., стер. – М.. Издательский центр «Академия», 2010. – 368 с.*
17. *Преподавание в сети интернет: Учеб. пособие/Отв. редактор В. И. Солдаткин. – М.: Высшая школа, 2003. – 792 с.*
18. *Психология и педагогика: Учебное пособие / О.В. Пастюк. М.: НИЦ ИНФРА-М, 2013. 160 с.*
19. *Сисоєва С.О. Інтерактивні технології навчання дорослих: навчально-методичний посібник / С.О.Сисоєва; НАПН України, Ін-т педагогічної освіти та освіти дорослих. – К.: ВД «ЕКМО», 2011. – 320 с.*
20. *Сметанський М. Контроль за навчально-пізнавальною діяльністю студентів: проблеми, шляхи розв'язання / М. Сметанський // Вища школа. – 2004. – №4. – С. 63-68.*
21. *Трайнев В. А. Новые информационные коммуникационные технологии в образовании / В.А. Трайнев, В.Ю. Теплышев, И.В. Трайнев. – 2 -е изд. – М.: Издательско торговая корпорация «Дашков и К», 2013. – 320 с.*
25. *Федотова Е.Л. Информационные технологии в науке и образовании: Учебное пособие/ Е. Л. Федотова, Е.М. Портнов. – М.: ИД Форум: НИЦ ИНФРА-М, 2013. – 336 с.*
26. *Хуторской А.В. Современная дидактика: Учебник для вузов / А.В. Хуторской. – Санкт-Петербург: Издательский дом «Питер», 2001. – 534 с.*

Educational content

5. Methods of mastering the discipline (educational component)

The pedagogical practice of graduate students takes place in three stages and involves the following activities:

- acquaintance with the organization of the educational process at the university;
- study of the experience of teaching leading teachers of the university while attending classes in professional disciplines;
- development of the plan and content of educational classes, methodical work on professional disciplines;
- independent training of classes in professional disciplines, introspection; - participation in assessing the quality of various types of student work;
- individual work with students during consultations, management of scientific student research (preparation for scientific conferences).

1. Organizational and methodological activities of the graduate student The initial stage of pedagogical practice - 10 hours, includes:

- Attending lectures, practical and laboratory classes and consultations of teachers of the department;
- Preparation together with the head of the plan of lectures, practical, laboratory classes and consultations;
- Drawing up a thematic plan and plans for individual classes and tasks for the course that is assigned to teach;

2. Educational and methodical activity of the graduate student The main stage of pedagogical practice - 30 hours, includes:

- Development of a plan, syllabus and methodological support for lectures on the selected course;
- Development of means of current or modular control;
- Development of plans-summaries of practical classes and their methodological support;
- Conducting classroom classes for graduate students according to the established schedule;
- Carrying out of individual employment with students in the form of consultations for the purpose of preparation for performance for participation in scientific conferences;

The graduate student must be attended by a teacher - the head of the practice. After each class conducted by the graduate student, a detailed discussion should be held, which should reveal the advantages and disadvantages of the class. During pedagogical practice, graduate students keep diaries in which they write in any form the content of the work, the results of observation of the educational process, their own pedagogical activities, personal impressions of the practice, wishes for its implementation. The diary is the basis for writing a practice report (Appendix 2)

3. Organizational and preparatory work for the final control The final stage of pedagogical practice (20 hours) includes:

- Preparation of reporting documentation on the internship;
- Drawing up a test in the form of protection of reporting documentation.

6. Independent work of the graduate student

Independent work of the graduate student includes:

- Acquaintance with the rules of internal regulations and safety measures established at the departments regarding the educational process;
- Study of the system of educational work of the department and features of methodical, scientific and organizational work of teachers of the department;
- Acquaintance with the credit-modular system of the educational process of the Free Economic Zone;
- Acquaintance with the student audience with which the trainee will conduct training sessions;

7. Course policy (educational component)

The internship is conducted on the basis of the Department of Geoengineering, where postgraduate students are trained. During the internship, graduate students are subject to the rules of internal regulations and safety, established at the departments of the university in relation to the educational process.

The place and terms of pedagogical practice are determined on the basis of the curriculum for postgraduate training at KPI named after Igor Sikorsky in accordance with the educational and scientific training program for higher education degree of Doctor of Philosophy in the specialty - 184 Mining.

The duration of pedagogical practice is set in accordance with the curriculum and schedule of the educational process of postgraduate training and individual plans of graduate students. It lasts in the third semester of study (full-time). The total number of hours is 60 and includes: educational and methodical work (preparation for classes, formation of methodical documentation, attendance and analysis of classes, management of various types of student activities).

The terms of the internship and its program are determined in the individual plan of the graduate student, which is made together with the supervisor, approved by the supervisor and the head of the department to which the graduate student is attached.

The work schedule of graduate students is made in accordance with the schedule of academic disciplines in coordination with the teaching staff of the department. To complete the internship, the graduate student together with the supervisor choose the discipline for the classes. On the first day of practice, a constituent conference is held, at which graduate students are informed about the purpose and objectives of practice, its duration, types and forms of teaching activities of graduate students, the order of accounting and evaluation of their work.

The graduate student together with the supervisor and in agreement with the head of the department draws up a schedule of internships. The graduate student has the right to address the research supervisor, the head of the department on all issues that arise during the internship; make suggestions for improving the organization of educational and pedagogical practice. The post-graduate student during the internship by prior arrangement has the right to attend classes of leading specialists of the university in order to study teaching methods, acquaintance with advanced pedagogical experience. The graduate student is subject to the rules of internal regulations of the university, the orders of the administration and heads of practice. In case of non-compliance with the requirements of the trainee, the graduate student may be suspended from the internship.

Upon completion of the internship, the graduate student must submit reporting documentation. The results of pedagogical practice of graduate students are summed up at the meeting of the department.

The general management of pedagogical practice and scientific and methodical consulting is carried out by the scientific adviser who:

- provides a clear organization, planning and accounting of the results of the internship, approves the general plan-schedule of the internship, its place in the system of individual planning of the graduate student;*
- selects the topics of classes and study groups for pedagogical practice;*
- provides methodological assistance in planning and organizing educational interaction;*
- monitors the work of the graduate student, attending classes and other types of his work with students, takes measures to eliminate shortcomings in the organization of practice;*
- prepares a review of the internship.*

8. Types of control and rating system for evaluation of learning outcomes (RSO)

Final control is carried out at the end of the internship by assessing the holistic systematic pedagogical activities of the graduate student at all stages throughout the period of practice.

1. The supervisor provides organizational and methodological assistance to the graduate student. He reviews the methodological materials for lectures and seminars planned for development by the graduate student, must be present at the lectures and seminars conducted by the graduate student. All this is reflected in the response of the supervisor about the internship as a graduate student.

2. Based on the results of the internship, the graduate student draws up reporting materials and submits to the department:

- written report on the internship, which describes the types of work performed and proposals to improve the content of the internship and the conditions of its implementation (the report is agreed with the head of the internship and signed by the dean of the faculty) (Appendix 1);

- plan-summary of the conducted classes (lecture and practical) and methodical materials; - analysis of attended classes;

- test tasks for current or modular control; - information about the career guidance and research work conducted with students; - diary of pedagogical practice.

The absence of at least one of these documents has the effect of preventing the graduate student from defending the practice and giving him an unsatisfactory grade.

3. The end result of pedagogical practice is the protection of its results before the commission.

The pedagogical practice of the graduate student is evaluated according to the modular rating system. The results of postgraduate study activities are evaluated on a 100-point scale.

1. Attendance at lectures, seminars and consultations of the head of practice - 5 points.

2. Detailed analysis in the form of a report of 2 classes (lecture and practical) of teachers of the department - 20 points (10 points for each class).

3. Development of a plan, synopsis, methodological support and conducting a lecture on the selected course - 20 points.

18-20 points - "excellent" - the graduate student demonstrates the ability to plan and implement various forms of educational process in the university, independently develop a plan, select and structure the content of educational material for lectures, logically and consistently teach it, create didactic materials using modern information technology ;

13-17 points - "good" - the graduate student demonstrates theoretical knowledge about various forms of educational process of free education, the ability to independently develop a plan and select material for lectures, structure it, work with didactic material and use modern information technology, however, there is little shortcomings in solving practical problems;

9-12 points - "satisfactory" - the graduate student demonstrates the ability to independently develop a plan, select material for a lecture, structure it, but there is an insufficient level of presentation in lectures. There is also no work with didactic material to provide lectures.

0-8 points - "unsatisfactory" - the graduate student could not independently develop a plan, select material for its logical and consistent presentation in lectures. There is no creative approach in planning and organizing various forms of lectures.

4. Development of plans-summaries of seminars and their methodical maintenance, development of means of current or modular control - 20 points.

18-20 points - "excellent" - the graduate student demonstrates the ability to plan and implement various forms of seminars, using innovative methods, techniques and means of consolidating material by students, as well as control and testing of students' knowledge of the material.

13-17 points - "good" - the graduate student demonstrates an understanding of the theoretical principles and features of the methodology of seminars, uses innovative methods and techniques to consolidate the students passed the material. However, there are minor shortcomings in the implementation of various forms of control and evaluation of knowledge in students.

9-12 points - "satisfactory" - the graduate student demonstrates an understanding of the theoretical principles and features of the methodology of seminars, but there are significant shortcomings in the organization of the seminar.

0-8 points - "unsatisfactory" - the graduate student demonstrates a lack of understanding of the basic principles of the methodology of conducting seminars in the Free Economic Zone.

5. Content, design and defense of the report on pedagogical practice - 35 points.

6. Calculation of the rating scale (R): the sum of weight points obtained by the graduate student during pedagogical practice is: $R_c = 5 + 20 + 20 + 20 + 35 = 100$ points

The condition of admission to the defense of pedagogical practice is the performance by the graduate student of all types of activities and reporting.

Table of correspondence of rating points to grades on a university scale:

Scores	Rating
100-95	Perfectly
94-85	Very good
84-75	Fine
74-65	Satisfactorily
64-60	Enough
Less than 60	Unsatisfactorily
Admission conditions are not met	Not allowed

REPORT**FROM PEDAGOGICAL PRACTICE POSTGRADUATE STUDENT**

(department)

(specialty)

(Full Name)

The report is compiled by a graduate student in this form. But it is necessary to note the following: the period of practice; total hours; a network of classes conducted by the graduate student (dates, academic group, topic, type of classes); list of methodical materials developed during pedagogical practice; attending classroom classes in psychology and psychological and pedagogical disciplines; management of scientific student research: preparation for Olympiads, preparation of abstracts at scientific conferences, etc. (list of students); proposals to improve the content of the practice and the conditions of its implementation.

Term of practice: _____

Total hours: _____

Supervisor: _____

Director of IEE _____ Serhiy DENYSYUK

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL UNIVERSITY OF UKRAINE
“IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE”
INSTITUTE OF ENERGY CONSERVATION AND ENERGY MANAGEMENT
DEPARTMENT OF GEOENGINEERING

DIARY OF PEDAGOGICAL PRACTICE

Postgraduate student (s) _____
Training course _____
Level of higher education _____
Specialties _____
Practice Manager _____
Term of practice _____

Kyiv - 20____

SOLUTION

Postgraduate student _____ is sent for pedagogical practice in KPI named after Igor Sikorsky to the Department of Geoengineering from

"__" _____ 20__ to "__" _____ 20__

Director of IEE _____ Sergey DENYSYUK

Head of practice from the department _____

Postgraduate student _____ came to practice "__" _____ 20__, dropped out "__" _____ 20__

Head of practice from the department _____

1. MAIN PROVISIONS OF PEDAGOGICAL PRACTICE

1.1. The post-graduate student, leaving for practice, should receive instruction of the head of practice, and also to receive: - issued diary (direction of business trip); - individual tasks in pedagogical practice; - two copies of the calendar schedule of the internship (one - for a graduate student, the second - for the head of the internship from the department);

1.2. Upon arrival at the internship base, the graduate student must submit a diary to the supervisor, be instructed in safety and fire safety, get acquainted with the workplace, the rules of operation of the equipment and specify the plan of the internship.

1.3. During the pedagogical practice, the graduate student is obliged to strictly follow the rules of the internal regulations of the university.

1.4. The report on practice is made by the post-graduate student according to the calendar schedule of passing of pedagogical practice and additional instructions of heads of practice.

1.5. The pedagogical practice of the graduate student is evaluated in accordance with the program of pedagogical practice on a 100-point system.

1.6. A graduate student who does not meet the requirements of the internship and received a negative feedback about the work or an unsatisfactory assessment during the defense of the report, is re-referred to the internship during the holidays or during extracurricular activities.

CALENDAR SCHEDULE OF THE PRACTICE

№	Title of works	Internship plan (60 years)		Mark of performance
		1-10 weeks		

Head of practice from the department _____

4. REVIEW OF THE HEAD OF PRACTICE FROM THE DEPARTMENT ABOUT THE WORK OF THE POSTGRADUATE STUDENT IN THE PRACTICE AND ITS EVALUATION

Head of practice from the department _____

5. CONCLUSION OF THE HEAD OF PRACTICE FROM THE DEPARTMENT ON THE WORK OF THE POSTGRADUATE STUDENT

Date of offset: "___" _____ 20__

Rating:
On a national scale _____

Scores _____
On the scale ECTS _____

Head of practice from the department _____

6. WORKING RECORDS DURING PEDAGOGICAL PRACTICE

7. RULES OF KEEPING AND DESIGNING A DIARY

- 7.1. Diary - the main document of the graduate student during the internship.
- 7.2. If the graduate student is undergoing an internship outside the Igor Sikorsky KPI, the diary is also a certificate of business trip of the graduate student, which confirms the length of his stay in practice.
- 7.3. During the internship, the graduate student must briefly record the daily implementation of the calendar schedule of the internship.
- 7.4. At least once a week, the graduate student is required to submit the diary for review to the head of practice from the department, which checks the diary.
- 7.5. At the end of the internship, the diary together with the report is reviewed by the head of the internship from the department, compiles a response and signs them.
- 7.6. The graduate student submits the correspondingly executed diary together with the report to the department.

The internship is not credited if the diary is not designed in accordance with the requirements of the internship program.

Work program of the educational component (syllabus):

Compiled by:

Professor of Geoengineering, Doctor of Technical Sciences, Prof. Vovk O.

Professor of Geoengineering, Doctor of Technical Sciences, Prof. Kravets V.

Professor of Geoengineering, Doctor of Technical Sciences, Prof. Zuevskaya N.

Associate Professor of Geoengineering, Ph.D., Assoc. Gan A.

Associate Professor of Geoengineering, Ph.D. Shaidetska L.

Approved by the Department of Geoengineering (Minutes № 15 of 23.06.2021)

Approved by the IEE Educational and Methodological Commission (Minutes № 7 of June 23, 2021)