



Pedagogical practice

Working program of practice (Syllabus)

Educational component details

Level of higher education	<i>Third (educational and scientific)</i>
Discipline	<i>10 Natural Sciences</i>
Specialty	<i>101 Ecology</i>
Educational program	<i>Ecology</i>
Status of the educational component	<i>Regulatory</i>
Form of study	<i>full-time (daytime)/ full-time (evening)/ correspondence/ distance/ mixed</i>
Year of training, semester	<i>2nd year, 3rd semester</i>
The scope of the educational component	<i>2(60)</i>
Semester control/control measures	<i>Test</i>
Class schedule	<i>The internship lasts 2 weeks, can be held throughout the year semester</i>
Language of instruction	<i>Ukrainian</i>
Information about the course leader	Responsible for organizing the practice is Ovsyankina Viktoriia Alekseevna: https://eco-paper.kpi.ua/pro-kafedru/vykladachi/ovsyankina-viktoriya-oleksijivna.html Practice leaders: https://eco-paper.kpi.ua/pro-kafedru/vykladachi
Course placement	https://eco-paper.kpi.ua/navchannia/praktyka.html

Educational component program

- Description of the educational component, purpose, subject of study and learning outcomes**
Pedagogical practice is a mandatory and integral component of quality training future teachers. **The purpose of studying** this educational component is to form in postgraduate students a set of skills to convey their own knowledge to the audience, which is an extremely important component of the process of professional training of future teachers, an important stage of their professional growth. Pedagogical practice ensures the establishment of a connection between theoretical and practical training. The main tasks of pedagogical practice are: involving postgraduate students in professional and pedagogical activity in the conditions of a real higher educational institution; promoting the formation of an idea of the activities of teachers of higher educational institutions; forming skills in working with students when organizing lectures, seminars, practical and laboratory work; developing pedagogical thinking and acquiring research skills in pedagogical activity; forming skills to analyze the scientific problem being solved and express one's own point of view, showing good faith, scientific correctness, respect for opponents; forming skills to assess the possibility of applying the obtained results of scientific research for various practical tasks and

prospects for future research; deepening of special, technical, psychological and pedagogical knowledge through their application in practice; formation of skills to independently plan one's own pedagogical activity and implement it; formation of skills to carry out self-assessment of one's own pedagogical activity.

In accordance with the goal, the training of Doctors of Philosophy in this specialty requires strengthening the competencies formed in postgraduate students:

- *the ability to solve complex problems based on systematic scientific and general cultural worldview with adherence to the principles of professional ethics and academic integrity;*
- *ability to use modern tools, electronic information resources, specialized software in scientific and educational activities, in particular for modeling processes and making optimal decisions in the field of ecology, nature protection and rational use of nature;*
- *the ability to carry out scientific and pedagogical activities in higher education;- the ability to critically analyze, evaluate, and synthesize new and complex ideas.*

According to the requirements of the teaching practice program, postgraduate students after completing it must demonstrate the following program learning outcomes:

- *have a deep understanding of the conceptual principles and methodology of natural sciences, formulate and test hypotheses, and use appropriate evidence to substantiate conclusions, in particular, the results of theoretical analysis, experimental research, and mathematical and/ or computer modeling, in order to solve significant scientific and applied ecological problems;*
- *plan and carry out experimental and/ or theoretical research on ecology, environmental protection and optimization of nature use using modern tools, critically analyze the results of one's own research and the results of other researchers in the context of the entire complex of modern knowledge on the problem under study;*
- *freely present and discuss in the state and foreign languages, in compliance with the norms of academic ethics, the results of research, scientific and applied problems in ecology, environmental protection and optimization of natural resources, to competently reflect the results of research in scientific publications in leading domestic and international scientific publications;*
- *develop and teach special academic disciplines related to the subject area of ecology in higher education institutions;*
- *apply modern tools and technologies for searching, processing and analyzing information on environmental problems and related issues, in particular, statistical methods for analyzing large-scale and/ or complex data, specialized databases and information systems;*
- *have modern conceptual knowledge and a high methodological level in the field of ecology and at the border of subject areas, as well as research skills sufficient to conduct scientific and applied research at the level of the latest world achievements*

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

The pedagogical practice is based on the knowledge obtained by postgraduate students in basic professional disciplines and disciplines related to higher education pedagogy, sociology, etc. Pedagogical practice is the foundation for the formation of skills, abilities and teaching skills in a higher educational institution. Practice allows postgraduate students to develop an understanding of the key principles of preparing and conducting various types of classes. Postgraduate students

learn to independently prepare the necessary materials for organizing and conducting lectures, seminars, practical and laboratory classes in various specialized disciplines.

3. Content of the practice

The pedagogical practice consists of the following stages:

- receiving an individual assignment and internship schedule, familiarizing yourself with internship program;*
- passing the practical training and safety training;*
- familiarization with the main regulatory documents governing the organization and conducting the educational process of the department;*
- detailed study of the material and technical base of the practice;*
- familiarization with laboratories and classrooms where classes are held;*
- attending lectures, practical and laboratory classes in specialized disciplines conducted by highly qualified teachers of the department;*
- independent preparation and conducting of relevant classes in specific specialized subjects disciplines specified in the individual assignment of the postgraduate student for pedagogical practice;*
- conducting an objective self-assessment of the quality of the lessons conducted, taking into account the assessment postgraduate work by students of groups where he conducted classes;*
- preparation of a report and practice diary and passing a test on teaching practice.*

During the pedagogical practice, postgraduate students get acquainted in detail with the specialized disciplines taught at the department. Together with the practice supervisor, each postgraduate student is selected specialized disciplines of the department, from which the postgraduate students must prepare and conduct classes. The postgraduate student must necessarily attend classes in the selected disciplines (lecture, seminar, practical and laboratory classes), conducted by teachers who teach these disciplines at the department. After that, postgraduate students, under the supervision of teachers of the relevant disciplines, prepare and agree with the practice supervisor a lesson plan and begin preparing material for lectures, practices, seminars and laboratory classes. At the time agreed with the teachers, the postgraduate student independently conducts certain classes. The practice supervisor, the teacher of the given discipline and others may be present at the classes. teachers and postgraduate students of the department. Laboratory work must be carried out together with a teacher of the relevant discipline. For postgraduate students, additional meetings with leading lecturers can be arranged. departments. At the end of the teaching practice, the postgraduate student independently conducts a self-analysis of his/ her own work. The results obtained are reflected in the practice report and reported when passing the teaching practice exam.

4. Educational materials and resources

Basic literature

- 1. P.M. Shcherban. Applied pedagogy: Teaching and methodical manual. -K.: Higher school, - 2002. - 215 p.*
- 2. Pedagogy of higher education [Electronic resource]: textbook / V.P. Golovenkin; Igor Sikorsky Kyiv Polytechnic Institute. – 2nd ed., revised and supplemented. – Electronic text data (1 file: 3.6 MB). – Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 2019. – 290 p.*
- 3. Fitsula M.M. Pedagogy of higher education: Textbook. – Kyiv: “Akademvydav”, 2006. – 352 p.*

4. Nemchenko S.G. *Pedagogy of higher education: A textbook for students of higher educational institutions* / S.G. Nemchenko, O.B. Golik, O.V. Lebid. – Donetsk: LANDON-XXI, 2014. – 534 p.
5. Kalashnikova L.M., Zhernovnikova O.A. *Pedagogy of higher education in diagrams and tables: a textbook*. – Kharkiv, 2016. – 260 p. *Additional literature*
6. Zgurovskiy M.Z. *The state and tasks of higher education in Ukraine in the context of the Bologna process*. – Kyiv: IVC “Polytechnica”, 2004. – 76 p.
7. Vasilyuk A., Pakhotsinsky R., Yakovets N. *Modern educational systems: Textbook*. – Nizhyn: NDPU, 2002. – 139 p.
8. *Educational technologies: Educational and methodological manual*. / ed. O.M. Pehota. – Kyiv: “ASK”, 2001. – 128 p

Information resources on the Internet

9. Department of Psychology and Pedagogy, Igor Sikorsky Kyiv Polytechnic Institute - <http://psy.kpi.ua/>
10. Working and educational programs in specialized disciplines of the Department of Ecology and Technology of Plant Polymers of Igor Sikorsky Kyiv Polytechnic Institute - <https://eco-paper.kpi.ua>

5. Methodology for mastering the educational component

Lecture classes

In accordance with the individual task of the postgraduate student, he attends a lecture (if necessary, several lectures) of the relevant professional discipline together with students. Attending lectures is aimed at familiarizing the postgraduate student with the specifics of teaching this discipline, getting to know the group of students. During the pedagogical internship, the internship supervisor may organize trips and excursions to other universities and organizations in order to familiarize themselves with modern approaches to studying specialized disciplines.

Practical, seminar and laboratory classes

The individual pedagogical practice assignment of the postgraduate student must include information on the professional disciplines in which the postgraduate student must prepare and conduct a seminar, practical and (if possible) laboratory lesson. For a better understanding of the assignment and better preparation for conducting the lessons, the postgraduate student can attend a seminar and practical lesson in the specified disciplines. In the case when the individual pedagogical practice assignment provides for the postgraduate student to conduct a laboratory lesson, the postgraduate student's prior attendance at the laboratory lesson is mandatory.

6. Independent work of a postgraduate student

Independent work takes up 100% of the time allocated for teaching practice. The main task of independent work of postgraduate students is to master scientific knowledge in certain professional disciplines. The postgraduate student independently processes and prepares materials for conducting lectures, seminars, practical and laboratory classes. In the process of independent work within the framework of teaching practice, the postgraduate student must learn to deeply analyze modern approaches to organizing and conducting classes in higher education institutions.

Approximate distribution of working hours, days:

1	<i>Familiarization with the internship program and calendar. Receiving an individual assignment. Receiving instructions on the procedure for completing teaching practice and safety instructions.</i>	1
2	<i>Attending classes conducted by department teachers</i>	1
3	<i>Preparing for classes</i>	2
4	<i>Conducting lectures, seminars, practical and laboratory classes</i>	4
5	<i>Excursion to other departments, other educational institutions and organizations</i>	1
6	<i>analysis of the work done, preparation of a report on the practice</i>	1
7	<i>Passing the test and practice report</i>	<i>after completing pedagogical practice</i>
8	<i>total</i>	10

Before the start of the internship, each postgraduate student receives an individual internship assignment, which indicates which classes and in which specialized disciplines he must conduct during the internship. Together with the teachers of the relevant disciplines, the postgraduate student agrees on a schedule for attending and conducting classes in each discipline. The internship takes place according to a calendar plan drawn up by the internship supervisor. The internship supervisor also helps organize the work on preparing and conducting classes. If necessary, the supervisor organizes additional consultations for postgraduate students with leading teachers. The graduate student records all stages of completing the individual task in a diary. All materials for preparing and conducting classes, and the results of self-analysis are reflected in the report.

7. Educational component policy

Rules for class attendance and behavior in class

Postgraduate students are required to take an active part in the educational process, not to be late for classes or miss them without a good reason, not to interfere with the teacher conducting classes, and not to be distracted by actions unrelated to the educational process. During independent study, the postgraduate student must adhere to all ethical principles. norms. The basis for conducting pedagogical practice is the Department of Ecology and Technology of Plant Polymers of the ICF of the Igor Sikorsky Kyiv Polytechnic Institute. If necessary/ possible, pedagogical practice can be fully/ partially conducted at other departments of the Igor Sikorsky Kyiv Polytechnic Institute or at other universities. The process of a postgraduate student completing a teaching internship is constantly monitored by the internship supervisor. Once a week, the supervisor checks the stages of the postgraduate student's individual task and the internship schedule. The last days of the practice are devoted to processing and formalizing all results.

internship. The postgraduate student completes the internship diary and prepares a report on the internship. The report should be 30 to 50 pages (A4 format) of printed text.

The report is written on the basis of the collected materials according to the internship plan and individual assignment and consists of:

- an introduction stating the goals and objectives of the practice and the chosen ways to achieve them achievement;*
- schedule of practice and individual assignments;*
- theoretical and other data used in preparation for the classes in certain disciplines;*
- methods and means of quality control of classes; assessment and self-assessment results;*
- conclusions;*
- a list of literary and technical sources of information*

Reports specifically describe the work performed personally by the graduate student. The report must have continuous page numbering. All pages of the report must be bound. The report is reviewed and approved by the practice manager.

Rules for assigning incentive and penalty points

Incentive points can be awarded by the teacher exclusively for performing creative works in the discipline or for additional completion of online specialized courses with obtaining the appropriate certificate:- <https://prometheus.org.ua/courses-for-teachers/>. The maximum number of incentive points cannot exceed 20% of the rating. scales. There are no penalty points within the framework of pedagogical practice.

Deadline and Rescheduling Policy

No later than a week after the end of the teaching practice, the postgraduate student takes a test with internship committee consisting of the supervisor of the postgraduate internship, supervisors of other postgraduate students and teachers of the department. The composition of the commission is formed by the head of the department. To be admitted to the credit, the postgraduate student must fill out and sign the practice diary with the head, prepare a practice report. The practice grade is taken into account along with other grades that characterize the success of postgraduate students. The results of taking the credits for the practices are entered in the examination records, are entered in the grade book and in the progress log. In the event of arrears or any force majeure circumstances, graduate students should contact the teacher via available (provided by the teacher) communication channels to resolve problematic issues and agree on an algorithm of actions for work.

Academic Integrity Policy

Plagiarism and other forms of dishonest work are unacceptable. Plagiarism includes the lack of references when using printed and electronic materials, quotes, opinions of other authors. Hints and copying when writing tests, conducting classes are unacceptable; taking credit for another graduate student; copying materials protected by the copyright system without the permission of the author of the work. The policy and principles of academic integrity are defined in Section 3 of the Code of Honor of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". More details: <https://kpi.ua/code>

Academic Conduct and Ethics Policy

Graduate students must be tolerant, respect the opinions of others, formulate objections in a correct form, and constructively support feedback on classes. The norms of ethical behavior of students

and employees are defined in Section 2 of the Code of Honor of the National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute". More information: <https://kpi.ua/code>

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

Distribution of study time by types of classes and tasks in the discipline according to the working curriculum plan:

Semester	Study time		Distribution of study hours				Control measures		
	Credits	Acad. hours	Lectures	Practical	Lab work	IWS	MCT	RR	Semester control
3	2	60	-	-	-	60	-	-	test

A student's rating in a discipline consists of the points he receives for:

A postgraduate student's rating for teaching practice consists of additional points that he receives during the practice and points that he receives when passing the practice test. The semester test is a credit.

To obtain a credit score, the sum of all rating points received is converted according to the table:

Number of points	Rating
95...100	perfectly
85...94	very good
75...84	good
65...74	satisfactorily
60...64	enough
RD <60	unsatisfactorily
Admission conditions not met	not allowed

Pre-graduate internship work program (syllabus):

Compiled by Assoc. Prof., Ph.D., Ovsyankina V.O.

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