SYLLABUS OF THE EDUCATIONAL DISCIPLINE «EFFECTIVE LEADERSHIP COMMUNICATION FOR SCHOLARS IN PROFESSIONAL FIELDS»

<table>
<tr><td colspan="3">Course Lecturer</td><td colspan="2">Karpenko Olena Oleksiivna,
PhD in Pedagogy, Associate Professor,
Associate Professor of the Department of Documentation Science and Information Activities</td><td>Lecturer's Contact Information</td><td colspan="2">e-mail: o.karpenko@duikt.edu.ua
Course Page in Google Class – https://classroom.google.com/c/NzQ2MTg0MTAwODQy?cjc=2fxqefe</td></tr>
<tr><td colspan="3">Field of Study</td><td colspan="2">All fields of knowledge in which applicants are trained at the university</td><td>Educational Level:</td><td colspan="2">Master's, PhD</td></tr>
<tr><td colspan="3">Specialty:</td><td colspan="2">All specialities in which applicants are trained at the university</td><td>Semester</td><td colspan="2">2</td></tr>
<tr><td colspan="3">Educational Program</td><td colspan="2">All educational programs of the relevant specialities in which applicants are trained at the university</td><td>Type</td><td colspan="2">Elective</td></tr>
<tr><td rowspan="2">Course Load</td><td>ECTS Credits</td><td>Total Hours</td><td colspan="5">By types of classes:</td></tr>
<tr><td>3</td><td>90</td><td>Lectures
18</td><td>Seminars
–</td><td>Practical Classes
18</td><td>Laboratory Classes
–</td><td>Independent Study
54</td></tr>
<tr><td colspan="8">COURSE DESCRIPTION</td></tr>
<tr><td colspan="8">Connection in the Structural-Logical Scheme</td></tr>
<tr><td colspan="3">Educational components that precede the course</td><td colspan="5">Any educational component</td></tr>
<tr><td colspan="3">Educational components for which this course is foundational</td><td colspan="5">Scientific and pedagogical, research, undergraduate internships</td></tr>
<tr><td>Course objective:</td><td colspan="7">Formation of theoretical knowledge and practical skills of effective leadership, communication and management of research projects in the professional field, which will contribute to the development of their career growth and successful professional activities as scientists and leaders</td></tr>
<tr><td colspan="8">Competencies According to the Educational Program</td></tr>
<tr><td colspan="4">Soft- skills / General Competencies (GC)</td><td colspan="4">Hard-skills / Professional (Specialized) Competencies</td></tr>
<tr><td colspan="4">Ability to think critically
Ability to show initiative and entrepreneurship.</td><td colspan="4">Ability to cooperate at the regional, national and international levels for professional development and exchange of experience;
The ability to self-development throughout life.
Teamwork</td></tr>
</table>

Learning Outcomes (LO)
Communicate professionally in a foreign language (English) in the field of computer science; Be able to professionally present the results of their research in scientific, innovative and pedagogical activities. To organize teamwork and involve colleagues in scientific, innovative, grant activities for career growth, development of professional and creative potential in professional and creative potential in the professional field.

LEARNING ORGANIZATION			
Type of Class	**Type of Class**	**Type of Class**	**Forms and Methods of Learning / Questions for Independent Work**
Module 1: Oral and written communication for leaders-scientists in a professional field			
Topic 1: Oral communication and rhetoric as a component of Professional leaders' activities. ***Recommended sources:*** 1-9.			
Class 1.1. Fundamentals of effective oral communication and rhetoric for scientists, methods of persuasive speaking.	Lecture 1 2 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)
Class 1.2. Techniques for developing rhetorical skills for academic speeches.	PracticalClass 1 2 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions
Topic 2. Strategies for writing scientific articles for publication in professional journals of category A and B. ***Recommended sources:*** 1-9.			
Class 2.1. Writing scientific articles with an emphasis on clarity, structure, and academic style, publications in professional journals.	Lecture 2 2 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)
Class 2.2. Analysis of publication requirements, writing an abstract and introduction to a scientific article.	Practical Class 2 2 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions
Topic 3. Written communication for scientists: Reporting and presentations for academic conferences. ***Recommended sources:*** 1-9.			
Class 3.1. Preparation of scientific reports, reports for international conferences, public speaking techniques and work with scientific materials.	Lecture 4 2 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)
Class 3.2. Techniques for preparing reports and presentations for conferences.	PracticalClass 4 2 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions
Topic 4. Grants in scientific research: Preparing and writing grant applications. ***Recommended sources:*** 1-9.			
Class 4.1. Overview of grant application requirements, techniques for preparing competitive applications, mistakes and	Lecture 3 4 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)

how to avoid them.			
Class 4.2. Preparation of a grant application draft.	PracticalClass 3 4 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions
Independent Work			
Topic 1. Developing rhetorical skills for academic speeches.	6 hours	2 points	Analyze and practice effective rhetorical techniques for public speaking in academic and professional contexts.
Topic 2. Analyzing publication requirements for high-impact journals.	6 hours	2 points	Develop an abstract and introduction for a scientific article based on the standards of journals in categories A and B.
Topic 3. Creation of a scientific report for a conference.	6 hours	3 points	Analyze the structure and key components of a scientific report.
Topic 4. Analysis of grant opportunities in employment.	8 hours	3 points	Analyze grants for employment at the domestic and foreign levels.
Modular Control		20 points	
Module 2: Leadership and Research Project Management			
Topic 5. Leadership theories and their application in research within professional fields of activity. ***Recommended sources:*** 1-9.			
Class 5.1. Overview of leadership models, leadership competencies for scientists, the role of leadership in team motivation.	Lecture 5 2 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)
Class 5.2. Study of examples of successful leaders in scientific projects within the professional field.	PracticalClass 2 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions
Topic 6. Management of research projects in professional fields of activity. ***Recommended sources:*** 1-9.			
Class 6.1. Preparing a plan and budget for a research project, risk management, and tools for the team.	Lecture 6 2 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)
Class 6.2. Developing a research project management plan.	PracticalClass 4 2 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions
Topic 7. Ethical leadership in science. ***Recommended sources:*** 1-9.			
Class 7.1. Research ethics, responsibility in scientific activity, ethical decision-making.	Lecture 7 2 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)
Class 7.2. Discussion of ethical issues in a group, solving ethical dilemmas.	PracticalClass 4 2 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions

Topic 8. Communication Competence of a Leader as a Key Factor for Career Advancement. ***Recommended sources:*** 1-9.			
Class 8.1. Effective Communication in Team Socialization: the Leader's Role.	Lecture 8 2 hours		Teaching Methods: Verbal (problem-based, interactive, explanatory-illustrative lectures); Visual (demonstration, presentation)
Class 8.2. Identification of types and adequate interpretation of basic communication processes of a leader in a team.	PracticalClass 4 2 hours	5 points	Assessment Methods: Oral and written questioning (testing), presentations, discussions
Independent work			
Topic 5. Leadership Approaches and Their Influence on Research Projects.	8 hours	2 points	Examine various leadership approaches and evaluate their impact on the effectiveness of scientific research teams and project management.
Topic 6. Developing a Risk Management Strategy for IT Research Projects.	8 hours	3 points	Develop a comprehensive plan for managing an IT research project, including defining project goals, timelines, resources, and risk management strategies. Focus on the specific challenges faced in managing IT-related research projects and propose solutions.
Topic 7. Ethical Decision-Making in Scientific Leadership.	6 hours	2 points	Discuss ethical challenges in science and explore how ethical decision-making can be applied to leadership roles in scientific projects.
Topic 8. Communication competence in leadership for career advancement.	6 hours	3 points	Analyze the importance of communication competence in leadership for career advancement in different professional environments.
Modular Control 2		20 points	

MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE

- Multimedia projector;
- Computer lab for practical classes (Microsoft Office: Word, Excel, PowerPoint, etc.)

INFORMATION SUPPORT OF THE DISCIPLINE

1. Лідерство та комунікації в організації : навчальний посібник / упорядники: Н. Я. Михаліцька, М. Р. Яцик. Львів : Львівський державний університет внутрішніх справ, 2024. 512 с.
2. Brooks J. Intelligent leadership and leadership skills. *BDJ In Practice*. 2022. Vol. 35, no. 1. P. 16–18. URL: https://doi.org/10.1038/s41404-021-1005-z (date of access: 17.01.2025).
3. IT Leadership. *IT Leadership*. URL: https://it-leadership.ai/ (date of access: 17.01.2026).
4. Karpenko O. O. English: forming communication skills of reading, speaking, writing : Manual. Kharkiv : National aerospace university «Kharkiv Aviation, 2020. 79 p.
5. Leadership in the digital era: A review of who, what, when, where, and why / G. C. Banks et al. *The Leadership Quarterly*. 2022. P. 101634. URL: https://doi.org/10.1016/j.leaqua.2022.101634 (date of access: 17.01.2026).
6. Milligan D. 20 Golden Secrets of Leadership Success. Lulu Press, Inc., 2023.
7. MSc D. R. G. D. Leadership in Information Technology. *LinkedIn: Log In or Sign Up*. URL: https://www.linkedin.com/pulse/leadership-information-technology-rimon-gerges (date of access: 17.01.2025).
8. Peifer Y., Jeske T., Hille S. Artificial Intelligence and its Impact on Leaders and Leadership. *Procedia Computer Science*. 2022. Vol. 200. P. 1024–1030. URL: https://doi.org/10.1016/j.procs.2022.01.301 (date of access: 17.01.2026).
9. The Art of IT Leadership: Unleashing Your Potential as a Tech Leader - Risely. *Risely*. URL: https://www.risely.me/art-of-it-leadership/ (date of access: 17.01.2025).

COURSE POLICY («RULES OF THE GAME»)

- The course involves teamwork.
- The classroom environment is friendly, creative, and open to constructive criticism.
- Mastering the discipline involves attending lectures, practical classes, as well as independent work.
- Independent work includes theoretical study of issues related to the topics of lectures that were not included in the theoretical course or were not fully considered, their in-depth study based on the recommended literature.
- All tasks provided for in the program must be completed on time.
- If a higher education student is absent for a valid reason, he or she presents the completed assignments during independent preparation and consultation with the teacher.
- No violation of academic integrity is allowed while working on assignments.

CRITERIA AND METHODS OF EVALUATION

The condition for admission to the final control is that the student receives from 20 to 60 points through the completion of practical and independent tasks provided for by the structure of the educational component «Effective Leadership Communication for Scientists in a Professional Field».

If a student is not admitted to take the exam due to not fulfilling the individual plan, they are given time before the retake to meet all admission requirements. The student is entitled to two retakes according to the Regulation on the Organization of the Educational Process at the University. Students are evaluated on a cumulative 100-point scale, which consists of two main assessment blocks distributed as follows: 60 points for *ongoing assessment* and 40 points for *final assessment (credit)*.

Forms of Control	Types of Educational Activities	Evaluation
ONGOING ASSESSMENT	Work in Classes, including:	
	• Completion of practical assignments	40 points
	• Independent work	20 points
FINAL ASSESSMENT ***Credit***	• Modular Control	40 points

Additional Assessment	**Assessment**
Types of academic work	
Participation in scientific conferences:	
Abstracts of reports / Writing a scientific article:	3 – 5 points
Completion of Coursera courses (Leadership in 21st Century Organizations, Effective Presentations and Persuasive Writing, The Persuasive Leader)	The maximum number of additional points that can be awarded to the student is 10 points.
Up to 10 points for completing a course relevant to the study topic.	

Forms of Control

FINAL GRADE FOR THE COURSE			
Grade	**Evaluation Criteria**	**Competency Level**	**Grade / Record in the Exam Register**
90-100	The student demonstrates complete and solid knowledge of the course material as outlined in the syllabus, correctly and reasonably makes necessary decisions in various non-standard situations. They are able to apply theoretical principles of the discipline in practical calculations, analyze and compare data from professional activities based on the knowledge and skills gained from this and related disciplines. They are familiar with modern technologies and methods for calculations in the discipline. Throughout the course, during practical lessons, individual or control tasks, the student has shown the ability to independently solve the set tasks, actively engage in discussions, and defend their position on issues under consideration. The reduction in the 100-point grade may be due to insufficient coverage of the course's issues, which exceed the program's volume, or the student's uncertainty in interpreting theoretical principles or complex practical tasks.	**High** Fully meets the knowledge, skills, and competencies required by the course syllabus. The student's own proposals in the evaluation and resolution of practical tasks enhance their ability to apply the knowledge gained from studying other disciplines, as well as from independent in-depth study of issues related to the discipline.	**Excellent / Passed (A)**
82-89	The student demonstrates good knowledge, is well-versed in the material corresponding to the course syllabus, analyzes possible situations based on this material, and knows how to apply theoretical principles to practical problems, but makes some minor inaccuracies. They are able to independently correct the few mistakes made. Familiar with modern technologies and methods of calculation in the discipline. During the course, the student gives comprehensive explanations when conducting practical lessons, individual tasks, and justifying their decisions.	**Sufficient** The student is able to solve key practical problems independently when the initial data are changed compared to examples studied during the course.	**Good / Passed (B)**
75-81	The student generally demonstrates good knowledge, knows the main points of the material corresponding to the course syllabus, analyzes potential situations, and is able to apply it to solve typical practical tasks but makes some minor inaccuracies. They are able to explain the main points of completed tasks and give correct answers when adjusting the output based on changing initial parameters. Mistakes in answers, decisions, or calculations are not systematic. Familiar with key points that are decisive for practical lessons and individual tasks.	**Sufficient** Shows a specific level of knowledge for the studied material based on the course syllabus. Additional questions about the practical application of theoretical principles may cause difficulties.	**Good / Passed (C)**
67-74	The student has mastered the main theoretical material provided in the course syllabus, understands the setup of standard practical tasks, and has suggestions for solving them. They understand the key points that are critical to the course and can solve tasks similar to those discussed with the instructor, but they make a significant number of inaccuracies and major errors, which they can correct with the instructor's help.	**Average** Provides a sufficiently reliable level of understanding of the core course material.	**Satisfactory / Passed (D)**
60-66	The student has some knowledge as outlined in the course syllabus, is familiar with the main points studied at a minimally acceptable level. With difficulty, they can explain the rules for solving practical/calculative tasks. Execution of practical, individual, or control tasks is highly formalized: they follow the algorithm but lack a deep understanding of the material or its connections with other disciplines.	**Average** Minimally acceptable in all components of the course syllabus.	**Satisfactory / Passed (E)**
35-59	The student is able to reproduce only fragments of the course. Although they have completed the course, their work has been passive, and their responses during practical work are mostly incorrect and unsubstantiated. The student lacks a coherent understanding of the course material. | **Low** Does not meet the practical requirements formed during the course study.	**Low** Does not meet the practical requirements formed during the course study.	**Unsatisfactory with the possibility of retaking / Failed (FX)** Not recorded in the grade book
0-34	The student completely failed to meet the requirements of the course syllabus. Their knowledge at the final stages of learning is fragmentary. The student is not allowed to pass the final exam.	**Unsatisfactory** The student is not prepared to independently solve tasks as set out by the course objectives.	**Unsatisfactory with mandatory repetition / Not admitted (F)** Not recorded in the grade book