

Ministry of education and science of Ukraine
Sumy national agrarian university
Faculty of economics and management
Department of management named by L.Mykhailova

Syllabus of the educational component

COMMUNICATION IN SCIENTIFIC AREA

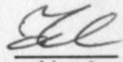
(mandatory)

Specialty	D3 Management
Educational program	Management
HE level	doctor of philosophy the third (educational and scientific) level of higher education

Розробники

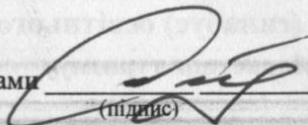


Юрій ДАНЬКО, д.е.н., професор, проректор з наукової та міжнародної діяльності

Розглянуто, схвалено та затверджено на засіданні кафедри маркетингу та логістики (назва кафедри)	протокол від <u>16.06.2025</u> № <u>18</u>
	Завідувач кафедри  <u>Наталія МАКАРЕНКО</u> (підпис) (Ім'я ПРІЗВИЩЕ)

Погоджено:

Гарант освітньої програми



Юрій ДАНЬКО.

(підпис) (Ім'я ПРІЗВИЩЕ)

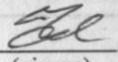
Завідувач відділу аспірантури та докторантури

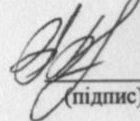


Світлана ЯРОЩУК

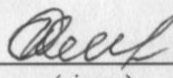
(підпис) (Ім'я ПРІЗВИЩЕ)

Рецензія на робочу програму(додається) надана:

 Наталія Макаренко
(підпис) (Ім'я ПРІЗВИЩЕ)

 Світлана Ярошук
(підпис) (Ім'я ПРІЗВИЩЕ)

Методист відділу якості освіти, ліцензування та акредитації

 Світлана Котилевич
(підпис) (Ім'я ПРІЗВИЩЕ)

Світлана Котилевич
(Ім'я ПРІЗВИЩЕ)

Зареєстровано в електронній базі: дата: 18.06 2025 р.

Information on viewing the work program (syllabus):

Academic year in which the changes are made	The number of the annex to the work program with a description of the changes	The changes were reviewed and approved		
		Date and number of the protocol of the meeting of the department	Head of department	Guarantor of EP

1. GENERAL INFORMATION ABOUT THE EDUCATIONAL COMPONENT

1.	Name of EC	Communication in scientific area			
2.	Faculty/Department	Faculty of Economic and Management / Department Marketing and logistics			
3.	State of EC	Obligatory			
4.	Program/Specialty (programs) of which the OC is a component (to be filled in for mandatory OCs)				
5.	Program/Specialty	Scientific and educational program «Management». The third (educational and scientific) level of higher education. Level of higher education: doctor of philosophy. Field of study: D - «Management and administration». Specialty: D3 - «Management».			
6.	Level of NFC	8			
7.	Semester and studying duration	Full-time 14 weeks, 2 semestr			
8.	ECTS credits number	3			
9.	Total workload and time allotment Language of instruction	Directed study			Self-directed study
		Lectures	Seminars	Labs	
		20	20	-	50
10.	Lecturer/Leader of educational component	English			
11.	ECTS credits number	Yurii Danko, Dr.Sci in Management, professor of Marketing and Logistics department			
11.	Contacts	Consultations hours – every tuesday at 12.15, online; y.danko@snau.edu.ua			
12.	Educational component description	The discipline is a mandatory part of the training of doctors of philosophy. Studying the discipline provides the opportunity to communicate in the scientific environment, present research results, use a wide range of information exchange tools. The need to introduce the discipline is due to the activation of public relations, the development of social networks and other modern means of communication.			
13.	Educational component aim	The purpose of the discipline is to form a complex of knowledge and skills regarding the main theoretical and methodological approaches in the study of the phenomena of communicative practice, the formation of skills for practical participation in various types of communication.			
14.	Prerequisites for educational component studying, connection with other educational components of EP	The discipline is based on MU 3 Management of scientific projects and registration of intellectual property rights and is a prerequisite for MU 4 Academic writing in a foreign language, MU 6 Organization of preparation of scientific publications and writing a dissertation and MU 14 Pedagogical practice			

15.	Policy of academic integrity	According to the Code of Academic Integrity of the Sumy NAU, academic integrity is a set of principles, rules of behavior of participants in the educational process, aimed at forming an independent and responsible personality, capable of solving tasks in accordance with the educational level in compliance with the norms of law and social morality. Observance of academic integrity by students of higher education involves independent performance of educational tasks, tasks of current and final control, learning results. It is expected that students of higher education will adhere to the principles of academic integrity, being aware of the consequences of its violation, which is determined by the regulatory documents of the Sumy National Agrarian University, in particular the Code of Academic Integrity, the Regulations on the Prevention and Detection of Academic Plagiarism at the Sumy NAU (a full list of regulatory documents is posted on the university's website. https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/). For violation of academic integrity, students of higher education may be held to the following academic responsibility: - repeated assessment (test, exam, credit, etc.); - repeated completion of the training course; - warning; - issuing a reprimand; - expulsion from the university; (Part 5 of Article 48 of the draft Law of Ukraine "On Education"); - arrest or restriction of liberty, or deprivation of liberty, with deprivation of the right to hold certain positions or engage in certain activities with a fine.
16.	Moodle link	
17.	Keywords:	Marketing, communication, science

2. LEARNING OUTCOMES UNDER THE EDUCATIONAL COMPONENT AND THEIR RELATIONSHIP WITH PROGRAM LEARNING OUTCOMES

Learning outcomes for EC (MLOs): On successful completion the educational component, the student will be able...	Program learning outcomes, PLOs (specify the number according to the numbering given in EP) ¹		How is assessed
	PLO ₄	PLO ₇	
MLOs 1. Develop effective oral communications, including active listening, with specialists and non-specialists in the relevant field based on the principles of effective communication. Critically evaluate information received from various communication channels		x	Presentation
MLOs 2. Choose a communication channel, understanding the characteristics of different audiences, using different written communication tools in a scientific or educational context	x	x	Individual task
MLOs 3. Implement effective communication during public speaking, presenting a speech, participating in a discussion	x	x	Panel discussion
MLOs 4. Understand intercultural communication as a necessary condition for working in an international context, based on a critical approach, with respect for diversity and differences of cultures	x		Presentation

PLO₀₄ Deeply understand and implement general principles and methods of science, as well as the methodology of scientific research, and apply them in their own research and teaching practice.

PLO₀₇. Develop theories, concepts and principles of management for the implementation of the principles of sustainable development at different levels of management, integrate the obtained research results into logical structures for solving theoretical and practical management problems in accordance with the topic of their own research.

3. CONTENT OF THE EDUCATIONAL COMPONENT (CURRICULUM PROGRAM)

Topic. List of issues to be considered within the topic	Distribution within the general time budget			Learning resources
	Class work		Individual work	
Topic 1. Typology of communication Approaches to the typology of communication. The main forms of typology: type, classification, systematics, taxonomy. Verbal form of communication. The role of language in	2	2	4	3, 4, 6, 10, 12, 13

verbal communication. Nonverbal forms of communication: facial expressions, body movements, clothing. Nonverbal codes. Distribution of communication by levels.				
Topic 2. The communicative process as the basis of communication review. The communicative process and its structure are considered, models of communication as transmission, ritual, attraction of age and reception are analyzed; effects of communication as a desired goal in interaction; laws of communication as non-rigid tendencies of communication.	2	2	4	1, 4, 5, 6, 7, 12, 16
Topic 3. Verbal and non-verbal communication. Features of verbal communication, in particular the specifics of oral verbal communication, their typology, the structure of public speaking and recommendations for presenting a speech; types of speeches; communication using written language; speechwriting.	2	2	4	2, 4, 10, 11, 12, 13
Topic 4. Communication technologies for promoting scientific results. The concept of "technology", its components: systematicity, mass, algorithmicity. Analysis of basic communication technologies. Development of communication technologies at the present stage. Propaganda. Historical origins of propaganda. Specifics of propaganda. Use of propaganda technologies in election campaigns, military operations and the social sphere. Propaganda campaign: goal and objectives. Public relations - public relations (PR).	2	2	6	1, 3, 7, 8, 9, 15, 16
Topic 5. Communication channels and barriers in the scientific activity of a marketer The concept of "communication channel". Types of communication channels. Characteristics of the main communication channels. Selection and use of communication channels for carrying out a communicative action. Natural, technical, hybrid, artistic communication channels. Definition of the concept of "communication barrier".	2	2	6	3, 4, 6, 10, 12, 13

Topic 6. Mass communication. Mass media and information Mass media and information Features of the mass communication process as a social phenomenon. The concept of "mass media" (MSM). Classification of MSM. Characteristics of the main types of MSM. Main types and channels of MSM. Correlation of the concepts of "mass media" (MSM) and "mass media" (MSM). Theories of the influence of MSM on the audience. Methods and forms of the influence of MSM on mass consciousness. Theory of social responsibility of MSM. MSM, government, public. Public broadcasting. Printed MSM. Classification and characteristics of printed publications. Main advantages and disadvantages of printed publications in the modern communicative space. Types and types of printed publications: newspaper, magazine, leaflet, press release. Television communication: realities, traditions and modernity. Program product on television. Features of the impact of television news on the audience. Radio. Characteristic features of radio broadcasting. Using the potential of the radio channel in social communication. The role of radio in mass culture. Main communicative discourses.	4	4	12	1, 4, 5, 6, 7, 12, 16
Topic 7. New media in the system of communications in the scientific environment Electronic media. Characteristics of electronic media. Features of the use of electronic media in communication campaigns. "Cold" and "hot" media (M. McLuhan). Internet and globalization of the communicative space. Information and communicative flows based on Internet technologies. Communicative features of the media "gatherings" (Maidan). Types and forms of public speeches: speech, report, sermon, review of events. Language and ritual signs. Social networks.	2	2	8	2, 4, 10, 11, 12, 13

Topic 8. International and intercultural communications Culture as a type of communication. Concept and spheres of intercultural communication; concept of uncertainty situation and uncertainty reduction; culture shock. Examples of models of cultural communication. Literary model of Y. Lotman. Social and communicative function of the text. Mythological model of communication of B. Malinovsky. Theory of ritual. Culturems: components of culture. Elite and mass culture. Types of discourses of cultural communication. Cinema discourse. Theatrical discourse. Intercultural ties.	4	4	6	1, 3, 7, 8, 9, 15, 16
Total	20	20	50	

4.TEACHING AND LEARNING METHODS

MLO	Teaching methods (work to be carried out by the teacher <u>during classroom classes</u>, consultations)	Teaching methods (what types of educational activities should the student <u>perform independently</u>)
MLOs 1. Develop effective oral communications, including active listening, with specialists and non-specialists in the relevant field based on the principles of effective communication. Critically evaluate information received from various communication channels	Verbal methods: lecture, explanation, educational discussion	Method of ready knowledge
	Visual methods: demonstration	Method of formation of abilities and skills
	Practical methods: practical works, individual calculation and analytical tasks	Research method
	Method of tutoring	Methods of checking and evaluating knowledge, abilities and skills
MLOs 2. Choose a communication channel, understanding the characteristics of different audiences, using different written communication tools in a scientific or educational context	Verbal methods: lecture, explanation, educational discussion	Method of ready knowledge
	Visual methods: demonstration	Method of formation of abilities and skills
	Practical methods: practical works, individual calculation and analytical tasks	Research method
	Method of tutoring	Methods of checking and evaluating knowledge, abilities and skills

MLOs 3. Implement effective communication during public speaking, presenting a speech, participating in a discussion	Verbal methods: lecture, explanation, educational discussion	Method of ready knowledge
	Visual methods: demonstration	Method of formation of abilities and skills
	Practical methods: practical works, individual calculation and analytical tasks	Research method
	Method of tutoring	Methods of checking and evaluating knowledge, abilities and skills
MLOs 4. Understand intercultural communication as a necessary condition for working in an international context, based on a critical approach, with respect for diversity and differences of cultures	Verbal methods: lecture, explanation, educational discussion	Reading (studying theoretical material) preparing a presentation Peer to peer learning

5. EVALUATION BY THE EDUCATIONAL COMPONENT

5.1.1 To assess the expected learning outcomes, it is provided:

№	Methods of summative assessment	Points / Weight in the overall assessment	The date of compilation
1.	Presentatition	20/20%	4 week
2.	Individual task	40/40%	5 week
3.	Panel discussion	20/20%	9 week
	Presentatition	20/20%	10 week

* List of recommended topics for researching current problems of the development of communicative processes in scientific activity:

1. Features of presenting a report at a foreign conference
2. Features of business correspondence with a scientific journal
3. Features of business correspondence with a scientific partner
4. Formation of a scientific channel in a social network
5. Creation of scientific video content
6. Scientific blog

5.1.2 Evaluation criteria

Component	Unsatisfactory	Satisfactory	Good	Excellent
Cases	< 15 points	15-24 points	25-35 points	36-40 points

	The task requirements have not been fulfilled	Most of the requirements are met, but individual components are missing or insufficiently disclosed, there is no analysis of other approaches to the issue	All requirements of the task have been fulfilled	All the requirements of the task were met, creativity and thoughtfulness were demonstrated, and an own solution to the problem was proposed
Individual task	<18 points	18-21 points	22-26 points	27-30 points
	the correct answer was provided for less than 60% of the tasks	the correct answer was provided for 60%-74% of the tasks	the correct answer was provided for 75%-89% of the tasks	90% or more tasks were answered correctly
Test	<18 points	18-21 points	22-26 points	27-30 points
	The task requirements have not been fulfilled	Most of the requirements are met, but some components are missing or insufficiently disclosed	All requirements of the task have been fulfilled	All the requirements of the task were met, creativity and thoughtfulness were demonstrated, and an own solution to the problem was proposed

5.2. Formative assessment:

5.2.1 To evaluate the current progress in education and understand the areas of further improvement, is provided

№	Elements of formative assessment	Date
1	Testing after learning the topics № 2,4,5,7-10.	3 week, 7 week
2	Verbal feedback from the teacher during classroom work	constantly
3	Oral survey during classes and feedback from the teacher during classroom work	constantly
4	Conversation and discussion during classroom lectures	constantly
5	Written feedback from the teacher based on the results of the INHW	6,13 week
6	Discussion of situational tasks and presentations on the subject of independent study of the discipline	constantly
7	Verbal feedback from the teacher and students after the exam	14 week

Self-assessment can be used as an element of summative assessment and formative assessment.

5.3 Total number of points for EC and rating scale

The total number of points for the educational component is 100 points.

5.3.1 Evaluation scale operating at the University:

The sum of points for all types of educational activities	Evaluation on a national scale	
	For an exam, course project (work), practice, qualification work	For a credit
90 – 100	excellent	

82-89	good	passed
75-81		
69-74	satisfactory	
60-68		
35-59	not satisfactory with the possibility of retaking	not passed with the possibility of retaking
0-34	not satisfactory with obligatory repeated study of the discipline	not passed with obligatory repeated study of the discipline

REFERENCES

Preferred:

Acevedo, B., Malevicius, R., Fadli, H., and Lamberti, C. (2022). Aesthetics and education for sustainability. *Cult. Organ.* 28, 263–278. doi: 10.1080/14759551.2022.2028147

Acosta Castellanos, P. M., and Queiruga-Dios, A. (2022). From environmental education to education for sustainable development in higher education: a systematic review. *Int. J. Sustain. High. Educ.* 23, 622–644. doi: 10.1108/IJSHE-04-2021-0167

Allchin, D. (2023). Ten competencies for the science misinformation crisis. *Sci. Educ.* 107, 261–274. doi: 10.1002/sce.21746

Brown, B. A., Reveles, J. M., and Kelly, G. J. (2005). Scientific literacy and discursive identity: A theoretical framework for understanding science learning. *Sci. Educ.* 89, 779–802. doi: 10.1002/sce.20069

Burns, T. W., O'Connor, D. J., and Stocklmayer, S. M. (2003). Science communication: a contemporary definition. *Public Underst. Sci.* 12, 183–202. doi: 10.1177/09636625030122004

Campbell, A. A. (2017). Communicating science effectively to the public. *Chem. Eng. News* 95:34.

Fahnrich, B., Wilkinson, C., Weitkamp, E., Heintz, L., Ridgway, A., and Milani, E. (2021). RETHINKING science communication education and training: towards a competence model for science communication. *Front. Commun.* 6:795198. doi: 10.3389/fcomm.2021.795198

Fasce, A., and Pico, A. (2019). Science as a vaccine: the relation between scientific literacy and unwarranted beliefs. *Sci. Educ.* 28, 109–125. doi: 10.1007/s11191-018-00022-0

Gupta, M., Dennehy, D., Parra, C. M., Mäntymäki, M., and Dwivedi, Y. K. (2023). Fake news believability: the effects of political beliefs and espoused cultural values. *Inf. Manag.* 60:103745. doi: 10.1016/j.im.2022.103745

Hoettecke, D., and Allchin, D. (2020). Reconceptualizing nature-of-science education in the age of social media. *Sci. Educ.* 104, 641–666. doi: 10.1002/sce.21575

Horner, C. G., Galletta, D., Crawford, J., and Shirsat, A. (2021). Emotions: the unexplored fuel of fake news on social media. *J. Manag. Inf. Syst.* 38, 1039–1066. doi: 10.1080/07421222.2021.1990610

Horton, R. (2020). Offline: after COVID-19-is an "alternate society" possible? *Lancet* 395:1682. doi: 10.1016/S0140-6736(20)31241-1

Kappel, K., and Holmen, S. J. (2019). Why science communication, and does it work? A taxonomy of science communication aims and a survey of the empirical evidence. *Front. Commun.* 4:55. doi: 10.3389/fcomm.2019.00055

Knudsen, E., Dahlberg, S., Iversen, M. H., Johannesson, M. P., and Nygaard, S. (2022). How the public understands news media trust: an open-ended approach. *Journalism* 23, 2347–2363. doi: 10.1177/14648849211005892

Li, B., Sjöström, J., Ding, B., and Eilks, I. (2023). Education for sustainability meets Confucianism in science education. *Sci. Educ.* 32, 879–908. doi: 10.1007/s11191-022-00349-9

Additional:

Lopes, R. M., de Faria, D., Fidalgo-Neto, A. A., and Mota, F. B. (2017). Facebook in educational research: a bibliometric analysis. *Scientometrics* 111, 1591–1621. doi: 10.1007/s11192-017-2294-1

National Academies of Sciences, Engineering, and Medicine (2017). *Communicating science effectively: a research agenda*. Washington, DC: The National Academies Press.

Paola, V. S., Brenda, F. R., Angelica, A. V. M., Jorge, I. E., Fernando, G. N. F., and Antonio, A. V. R. (2022). Analysis of scientific dissemination posts on Facebook from a social media approach. Paper presented at the 17th Iberian conference on information systems and technologies (CISTI), Madrid, Spain.

Pérez, G., and Romanini, V. (2022). The role of television journalism in the production of political narratives: a comparative study Brazil/Colombia. *Brazilian J. Res.* 18, 64–91. doi: 10.25200/BJR.v18n1.2022.1398

Roth, W. M., and Lee, S. (2002). Scientific literacy as collective praxis. *Public Underst. Sci.* 11, 33–56. doi: 10.1088/0963-6625/11/1/302

Roth, W. M., and Lee, S. (2004). Science education as/for participation in the community. *Sci. Educ.* 88, 263–291. doi: 10.1002/sce.10113

Soriano-Redondo, A., Correia, R. A., and Di Minin, E. (2023). Social media data can inform the global biodiversity framework. *Biol. Conserv.* 281:109993. doi: 10.1016/j.biocon.2023.109993

Suldoovsky, B., Allison, M., Joubert, M., Lofgren, I. E., and McWilliams, S. (2022). Editorial: helping scientists to communicate well for all considered: strategic science communication in an age of environmental and health crises. *Front. Commun.* 7:970331. doi: 10.3389/fcomm.2022.970331

Toivonen, T., Heikinheimo, V., Fink, C., Hausmann, A., Hiippala, T., Jarv, O., et al. (2019). Social media data for conservation science: a methodological overview. *Biol. Conserv.* 233, 298–315. doi: 10.1016/j.biocon.2019.01.023

Valladares, L. (2021). Scientific Literacy and Social Transformation Critical Perspectives About Science Participation and Emancipation. *Science & Education*, 30, 557–587. doi: 10.1007/s11191-021-00205-2

Vesterinen, V. M., Tolppanen, S., and Aksela, M. (2016). Toward citizenship science education: what students do to make the world a better place? *Int. J. Sci. Educ.* 38, 30–50. doi: 10.1080/09500693.2015.1125035

Vosoughi, S., Roy, D., and Aral, S. (2018). The spread of true and false news online. *Science* 359:1146. doi: 10.1126/science.aap9559

Welbourne, D. J., and Grant, W. J. (2016). Science communication on YouTube: factors that affect channel and video popularity. *Public Underst. Sci.* 25, 706–718. doi: 10.1177/0963662515572068

Wu, Y. L., Xie, L., Huang, S. L., Li, P., Yuan, Z. W., and Liu, W. H. (2018). Using social media to strengthen public awareness of wildlife conservation. *Ocean Coastal Manag.* 153, 76–83. doi: 10.1016/j.ocecoaman.2017.12.010