Card of educational and methodical support
Fall semester 2022-2023 academic years
on the educational program "Information Security Systems"

Discipline's code	Discipline's title	Independent work of students (IWS)	No. of hours per week			Number of credits	Independent work of student with teacher (IWST)
			Lectures (L)	Practical training (PT)	Laboratory (Lab)		
SRM 7201	Scientific Research methods	0	0	18	0	2	3

Academic course information					
Form of education	**Type of course**	**Types of lectures**	**Types of practical training**	**Number of IWS**	**Form of final control**
Offline	Mandatory	Problematic/analytical	Research and analysis of scientific literatures	0	Project
Lecturer	Omarov Batyrkhan Sultanovich				
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Academic presentation of the course

Aim of course	Expected Learning Outcomes (LO) As a result of studying the discipline the undergraduate will be able to:	Indicators of LO achievement (ID) (for each LO at least 2 indicators)
to form the understanding and the ability of using of the principles and practices of Scientific writing to do own publish scientific results.	**Module 1 Fundamentals of Scientific Writing (Cognitive).**	
	LO1-1: name and demonstrate the object of scientific writing and its concept.	1.1.1 Determine the scientific writing objects. 1.1.2 Demonstrate the basic concepts of scientific writing.
	Module 2 Scientometric databases (Cognitive, Functional).	
	LO2-1: explain the goal and working principle of scientometric databases as Scopus, Web of Science, SCI, SCIE, SSCI.	2.1.1 Define the concept of scientometric databases. 2.1.2 Describe the technology of working with scientometric databases.
	LO2-2: apply searching necessary literatures in scientometric databases.	2.2.1 Demonstrate the application of scientometric databases in own research and literature review.
	Module 3 Review paper types (Cognitive, Functional, Systemic)	
	LO3-1: Describe Review paper types and goals	3.1.1 Describe the systematic review model. 3.1.2 Demonstrate the common review paper model. 3.1.3 Demonstrate literature review in scientometric databases by queries.
	LO3-2: Describe and apply review paper structure	3.2.1 Describe Abstract writing for a review paper 3.2.2 Demonstrate Application of Literature Review part for a review paper 3.2.3 Demonstrate the Problem Statement of Literature review research
	LO3-3: Describe and apply literature review	3.3.1 Describe and compare techniques for Literature review and citing the literatures

		3.3.2 Demonstrate the comparative analysis of literatures. 3.3.3 Demonstrate the critical review of literatures.
	LO3-4: Describe and apply a Problem clarification and Research question	3.4.1 Describe clarification of the research problem. 3.4.2 Demonstrate the application ofquerying. 3.4.3. Demonstrate inclusion and exclusion process of the literature
	LO3-5: Describe and apply a review paper writing	3.5.1 Describe standard review paper structure. 3.5.2 Demonstrate application of citing methods. 3.5.3 Demonstrate Discussion and Conclusion parts of the review.
	Module 4 Research papers (Cognitive, Functional, Systemic)	
	LO4-1: Describe and apply research paper structure	4.1.1 Describe and compare Research and Review paper goals 4.1.2 Demonstrate research paper structure
	LO4-2: Describe and apply writing principles of research papers	4.2.1 Describe writing an abstract and problem statement of a research paper. 4.2.2 Demonstrate the scientific novelty of own research.
	Module 5 ScholarOne Manuscript submission guidelines (Cognitive, Functional)	
	LO5-1: demonstrate the manuscript submission to journals and conferences	5.1.1 Determine the manuscript submission to scientific conferences in appropriate format. 5.1.2 Demonstrate the manuscript submission to scientific journals in appropriate format.
	Module 6 Writing research design and results (Cognitive, Functional)	
	LO6-1: Describe and apply Methods of Research paper writing	6.1.1 Describe dissertation structure. 6.1.2 Demonstrate the goals of parts of a dissertation.
Prerequisites	-	
Post requisites	Writing scientific articles	
Information resources	Basic Literature: 1. Angelika H. Hofmann. Scientific Writing and Communication: Papers, Proposals, and Presentations. Oxford University Press, Nov 15, 2019 - Communication in science - 768 pages 2. El-Sadig Y. Ezza, Touria Drid. Teaching Academic Writing As a Discipline-Specific Skill in Higher Education. IGI Global, 27 дек. 2019 г. - Всего страниц: 300 Complementory literature: 3. Michael Alley. The Craft of Scientific Writing. Springer, 21 мар. 2018 г. - Всего страниц: 298. 4. Steven C. Roe, Pamela H. den Ouden. Academic Writing, Third Edition: The Complete Guide. Canadian Scholars, 26 апр. 2018 г. - Всего страниц: 346 5. N. Gurumani. Scientific Thesis Writing and Paper Presentation. MJP Publisher, 11 июн. 2019 г. - Всего страниц: 460.	

Academic policy of the course in the context of university moral and ethical values	**Academic Behavior Rules:** All students have to register at the MOOC/MOODLE-KAZNU. The deadlines for completing the modules of the online course must be strictly observed in accordance with the discipline study schedule. ATTENTION! Non-compliance with deadlines leads to loss of points! The deadline of each task is indicated in the calendar (schedule) of implementation of the content of the curriculum, as well as in the MOOC/MOODLE-KAZNU. **Academic values:** - Practical trainings/laboratories, IWS should be independent, creative. - Plagiarism, forgery, cheating at all stages of control are unacceptable. - Students with disabilities can receive counseling at e-mail batyahan@gmail.com.
Evaluation and attestation policy	**Criteria-based evaluation:** assessment of learning outcomes in relation to descriptors (verification of the formation of competencies in midterm control and exams). **Summative evaluation:** assessment of work activity in an audience (at a webinar); assessment of the completed task. The final grade for the discipline is calculated according to the following formula: (MC1+MT+MC2)/3*0.6+FC*0.4, where MC - midterm control; MT - intermediate exam (midterm); FC - final control (exam). The rating scale is given in a syllabus: Assessment by letter system Numeric equivalent Points (% content) Score according to the traditional system A 4,0 95-100 Excellent A- 3,67 90-94 B+ 3,33 85-89 Good B 3,0 80-84 B- 2,67 75-79 C+ 2,33 70-74 C 2,0 65-69 Satisfactory C- 1,67 60-64 D+ 1,33 55-59 D- 1,0 50-54 FX 0,5 25-49 Unsatisfactory F 0 0-24

CALENDAR (SCHEDULE) THE IMPLEMENTATION OF THE COURSE CONTENT:

weeks	Topic name	LO	ID	amount of hours	Maximum score	Form of Knowledge Assessment	The Form of the lesson / platform
	Module 1 Fundamentals of Scientific Writing						
1	**PT 1** Object of scientific writing and its main components	LO 1	ID 1.1.1, ID 1.1.2	2	6	TK	Offline
1	**IWS1** Object of scientific writing concepts	LO 1	ID 1.1.1, ID 1.1.2		12	IT	
2	**PT 2** Scientometric databases and how to search from them	LO 1	ID 1.1.1, ID 1.1.2	2	6	TK	Offline

2	**IWS2** Searching necessary literatures	LO 1	ID 1.1.1, ID 1.1.2		12	IT	
3	**PT 3** Querying in scientometric databases.	LO 1	ID 1.1.1, ID 1.1.2	2	6	TK	Offline
3	**IWS3** Find necessary documents by querying and search from them	LO 1	ID 1.1.1, ID 1.1.2		12	IT	
3	**IWST1** Consultation on the implementation of IWS1, IWS2, IWS3	LO 1	ID 1.1.1, ID 1.1.2	1			Offline
Module 2 Scientometric databases							
4	**PT 4** How to use Scopus database.	LO 2-1	ID 2.1.1, ID 2.1.2		6	TK	Offline
4	**IWS4** Searching from Scopus	LO 2-1	ID 2.1.1, ID 2.1.2		12	IT	
5	**PT 5** Application of Sciencedirect for literature searching.	LO 2-2	ID 2.2.1		6	TK	Offline
5	**IWS 5** Application of Sciencedirect and find necessary literature by querying	LO 2-2	ID 2.2.1		12	IT	
	IWST2 Consultation on the implementation of IWS4, IWS5	LO 1, LO 2	ID 2.1.1, ID 2.1.2, ID 2.2.1				Offline
5	**MC 1**	LO 1 LO 2			100		
Module 3 Review paper types							
6	**PT 6** Systematic review model	LO 3-1	ID 3.1.1, ID 3.1.2, ID 3.1.3	2	6	TK	Offline
6	**IWS6** Read 10 systematic review paper in own research subject	LO 3-1	ID 3.1.1, ID 3.1.2, ID 3.1.3		12	IT	
7	**PT 7** Common review paper model.	LO 3-2	ID 3.2.1, ID 3.2.2, ID 3.2.3	2	6	TK	Offline
7	**IWS7 R**ead 10 review paper in own research subject		ID 3.2.1, ID 3.2.2, ID 3.2.3		12	IT	
7	**IWST3** Consultation on the implementation of IWS6, IWS7	LO 3-1, LO 3-2	ID 3.1, ID 3.2	1			Offline

8	**PT 8** Abstract writing for a review paper.	LO 3-3 LO 3-4	ID 3.3, ID 3.4	2	6	TK	Offline
8	**IWS 8** Literature review in scientometric databases by queries.	LO 3-3, LO 3-4	ID 3.3, ID 3.4		12	IT	
9	**PT 9** Demonstrate Application of Literature Review part for a review paper.	LO 3-5	ID 3.5.1, ID 3.5.2, ID 3.5.3	2	6	TK	Offline
9	**IWS9** Demonstrate the Problem Statement of Literature review research.	LO 3-5	ID 3.5.1, ID 3.5.2, ID 3.5.3		12	IT	
9	**IWST4** Consultation on the implementation of IWS8, IWS9	LO 3-3, LO 3-4, LO 3-5	ID 3.3, ID 3.4, ID 3-5	1			Offline
Module 4 Research papers							
10	**PT 10** Compare Research and Review paper goals.	LO 4-1	ID 4.1.1, ID 4.1.2	2	6	TK	Offline
10	**IWS 10** Demonstrate research paper structure.	LO 4-1	ID 4.1.1, ID 4.1.2		12	IT	
10	**MT (Midterm Exam)**	LO 1, LO 2, LO 3	ID 1, ID 2, ID 3		100		
11	**PT 11** Describe writing an abstract and problem statement of a research paper.	LO 4-2	ID 4.2.1, ID 4.2.2	2	6	TK	Offline
11	**IWS11** Demonstrate the scientific novelty of own research.	LO 4-2	ID 4.2.1, ID 4.2.2		12	IT	
11	**IWST5** Consultation on the implementation of IWS10, IWS11	LO 4-1, LO 4-2	ID 4.1, ID 4.2	1			Offline
Module 5 ScholarOne Manuscript submission guidelines							
12	**PT 12** Determine the manuscript submission to scientific conferences in appropriate format.	LO 5-1	ID 5.1.1, ID 5.1.2	2	6	TK	Offline
12	**IWS12** Demonstrate the manuscript submission to scientific journals in appropriate format.	LO 5-1	ID 5.1.1, ID 5.1.2		12	IT	
13	**PT 13** Demonstrate the manuscript submission to scientific journals in appropriate format.	LO 5-1	ID 5.1.1, ID 5.1.2	2	6	TK	Offline

13	**IWS13** Demonstrate the scientific novelty of own research.	LO 5-1	ID 5.1.1, ID 5.1.2		12	IT	
13	**IWST6** Consultation on the implementation of IWS12, IWS13	LO 5-1	ID 5.1.1, ID 5.1.2	1			Offline
Module 6 Writing research design and results							
14	**PT 14** Determine the manuscript submission to scientific conferences in appropriate forma.	LO 6-1	ID 6.1.1, ID 6.1.2	2	6	TK	Offline
14	**IWS14** Demonstrate the manuscript submission to scientific journals in appropriate format.				12	IT	
15	**PT 15** Describe dissertation structure e.	LO 6-1	ID 6.1.1, ID 6.1.2	2	6	TK	Offline
15	**IWS15** Demonstrate the goals of parts of a dissertation.				12	IT	
	IWST7 Consultation on the implementation of IWS14, IWS15	LO 6-1	ID 6.1.1, ID 6.1.2	1			Offline
	MC 2	LO 4, LO 5, LO 6	ID 4.1, ID 4.2, ID 5.1, ID 6.1		100		

[Abbreviations: QS - questions for self-examination; TK - typical tasks; IT - individual tasks; CW - control work; MC- midterm control, MT – midterm exam.
Comments:
- Form of L and PT: webinar in MS Teams / Zoom (presentation of video materials for 10-15 minutes, then its discussion / consolidation in the form of a discussion / problem solving / ...)
- Form of carrying out the CW: webinar (at the end of the course, the students pass screenshots of the work to the monitor, he/she sends them to the teacher) / test in the Moodle DLS.
- All course materials (L, QS, TK, IT, etc.) see here (see Literature and Resources, p. 6).
- Tasks for the next week open after each deadline.
- CW assignments are given by the teacher at the beginning of the webinar.]

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