COURSE DESCRIPTION CARD - SYLLABUS

Course name
COMPETENCIES IN INFORMATION AND PUBLICATION [S5SD1>KZIP]

Course

Proposed by Discipline
–

Year/Semester
1/1

Level of study
Doctoral School

Course offered in
English

Form of study
full-time

Requirements
elective

Number of hours

Lecture
4

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

1,00

Coordinators

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Lecturers

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Prerequisites

Knowledge: Familiarity with basic terms and concepts related to scientific research; Basic knowledge of the structure of scientific publications and different types of scientific sources. Skills: Ability to search for information using the internet and available databases; Basic skills in organizing one's work, particularly in the context of conducting research and gathering literature; Basic text editing skills in Microsoft Word. Social competences: Ability to work in a group, including effective communication and collaboration with other team members; Awareness of the importance of integrity and honesty in scientific work; Openness to receiving constructive criticism and willingness to provide support to colleagues in a scientific context; Critical and non-standard thinking abilities.

Course objective

The aim of the course “Competencies In Information And Publication” is to equip doctoral students with the skills necessary to effectively search, organise and manage scientific literature and to prepare and publish scientific papers. The course aims to develop competence in communicating with scientific journal editors and understanding the processes involved in peer review and publication. Participants will also gain an understanding of publishing ethics and the use of modern tools such as bibliography management tools and AI tools to support literature search.

Course-related learning outcomes

Knowledge
A PhD student who graduated from doctoral school knows and understands:
1) Key developmental trends in the scientific disciplines in which education at the Doctoral School takes place, [P8S_WG/SzD_W02]
2) Scientific research methodology in disciplines represented at the Doctoral School, [P8S_WG/SzD_W03]
3) Principles of disseminating results of scientific activity, including in open access mode, [P8S_WG/SzD_W04]

Skills
A PhD student who graduated from doctoral school can:
1) Use knowledge from different branches of science to creatively identify, formulate, and innovatively solve complex problems or perform research tasks, such as defining the aim and subject of scientific research, forming a research hypothesis, developing research methods, techniques, and tools, and using them creatively, [P8S_UW/SzD_U01]
2) Critically analyze and assess scientific research results, the work of experts, and other creative activities, along with their contribution to the development of knowledge, [P8S_UW/SzD_U02]
3) Communicate on specialist issues at a level that allows for active participation in the international scientific community, [P8S_UK/SzD_U04]

Social competences
A PhD student who graduated from doctoral school is ready to:
1) Critically assess achievements within a given scientific discipline, [P8S_KK/SzD_K01]
2) Acknowledge the importance of knowledge in solving cognitive and practical problems, [P8S_KK/SzD_K03]
3) Maintain and develop the ethos of research and creative communities, including conducting independent scientific activity and respecting the principle of public ownership of the results of scientific activities, including principles of intellectual property protection, [P8S_KR/SzD_K07]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

SzD_W02, SzD_W03, SzD_W04
Review and analysis of examples or student-submitted research proposals and literature reviews. Evaluation of understanding and application of search strategies, database use, and literature organization. Assessment is based on the ability to identify and use appropriate databases, formulate effective search strategies, and organize literature reviews systematically.

SzD_U01, SzD_U02, SzD_U04
Practical demonstration and presentations on using tools such as Mendeley and ChatGPT for literature management and article searches. Students will perform live searches, organize bibliographies during sessions, and provide examples of manual searches using databases like Scopus.
Evaluation will be based on the effectiveness of tool usage, ability to automate literature management, quality of organized bibliographies, and proficiency in conducting manual searches in databases.

SzD_K01, SzD_K03, SzD_K07
Group discussions and peer reviews on ethical considerations and communication strategies with journal editors. Role-playing exercises to simulate communication with journal editors and reviewers.
Assessment will focus on the understanding of ethical issues in publishing, effectiveness of communication strategies, and the ability to critically evaluate and provide constructive feedback on peers' work.

Programme content

The course covers the theoretical and practical aspects of scientific literature searching, bibliography management and communication with scientific journal editors. Participants will be introduced to the main databases, literature search strategies and bibliography management tools. Techniques for preparing scientific publications, the structure and style of scientific articles, and publication ethics will also be discussed. The course also includes demonstrations of practical use of tools such as Mendeley and ChatGPT.

Course topics

1. Literature and Scientific Article Search: Overview of major databases and search strategies for finding necessary sources; Methods for accessing scientific articles, both paid and open access.
2. Literature and Scientific Article Search Using AI Tools (ChatGPT): Utilization of ChatGPT for searching scientific articles; Strategies for information retrieval and processing using AI tools.
3. Bibliography Organization: Practical application of bibliography management tools (Mendeley); Learning organization and automation of literature management.
4. Communication with Journal Editors and Preparing Scientific Publications: Strategies for writing effective cover letters to journal editors; Preparation of articles according to journal requirements; Structure and style of scientific articles; Publication ethics and practical aspects of the review and publication process.

Teaching methods

Lecture: Multimedia presentation including illustrations and examples.

Bibliography

Basic
[1] Elsevier Ltd., Getting started with Mendeley Reference Manager, https://www.mendeley.com/guides/mendeley-reference-manager/.
[2] D. Jansen, Full Tutorial: How To Use Mendeley - Including The Web Importer & Mendeley Cite, (2023). https://gradcoach.com/how-to-use-mendeley/.
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[5] M. Safrai, K.E. Orwig, Utilizing artificial intelligence in academic writing: an in-depth evaluation of a scientific review on fertility preservation written by ChatGPT-4, J. Assist. Reprod. Genet. (2024). https://doi.org/10.1007/s10815-024-03089-7.
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Additional
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[3] T. Schoormann, D. Behrens, M. Fellmann, R. Knackstedt, On Your Mark, Ready, Search: A Framework for Structuring Literature Search Strategies in Information Systems, Lect. Notes Inf. Syst. Organ. 46 (2021) 558–575. https://doi.org/10.1007/978-3-030-86790-4_38.
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[5] S. Condrad, Pfeiffer Timothy, T. Szymoniak, Preparing Students for Writing in Civil Engineering Practice, Pap. Present. 2012 ASEE Annu. Conf. Expo. June (2012).

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	4	0,00
Doctoral student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation)	21	1,00