![Wrocław University of Science and Technology - Doctoral School]

COURSE CARD

1. Basic information

Course name in English:	Reporting seminar of Information and communication technology
Course name in Polish:	Seminarium sprawozdawcze Informatyka techniczna i telekomunikacja
Number of hours:	15
Type of course:	Reporting seminar of discipline
Form of course:	seminar
Code of course:	
Course leader:	Radosław Michalski, PhD, DSc, WUST Professor
Faculty of the course leader:	W4 Faculty of Information and Communication Technology
Email address of the course leader:	radoslaw.michalski@pwr.edu.pl

Scientific discipline(s) assigned to the course (doctoral students representing the marked disciplines can participate in the course):	Architecture and urban planning	☐
	Automation, electronic, electrical engineering and space technologies	☐
	Information and communication technology	X
	Biomedical engineering	☐
	Chemical engineering	☐
	Civil engineering, geodesy and transport	☐
	Materials engineering	☐
	Mechanical engineering	☐
	Environmental engineering, mining, and energy	☐
	Mathematics	☐
	Chemical sciences	☐
	Physical sciences	☐
	Management and quality studies	☐

2. Objectives

The goal of the reporting seminar is to present the progress of the PhD programmee of each of the PhD students and spark a discussion on their research results and plans for future work. Apart from that it is expected to discuss challenges of PhD students.

Objectives:
C1 Acquiring skills of clear relating of the most crucial elements of one's own activities associated with education in the Doctoral School, within the scopes: research, didactic, organizational.
C2 Acquiring skills of argumenting, elucidating and defending one's own theses, emthods and research tools.
C3 Acquiring skills of adapting accepted directions, methods and research tools in response to constructive remarks from the audience.

C4 Acquiring skills of disseminating investigation results, initiating a debate and participating in the scientific discourse.

3. Content

Detailed information about the course content, including topics and form of classes.

No.	Topic	Number of hours	Form of classes
1	Introduction to the purpose of the subjects and basic principles regarding contents to be presented as well as their forms, presentation of the seminar roster, presentation of the assessment rules.	1	seminar
2-8	Doctoral students' individual presentations on the state of the art of the field associated with the topic investigated in the doctoral process. Presentation of the PhD student's own research results with emphasis on the author's own, original contribution. Stimulation of a discussion among the course attendees. Presentations should also include achievements concerning: knowledge dissemination, didactics (i.e., classes with undergraduate and master-class students), and organizational involvement.	14	seminar

4. Prerequisites

List of prerequisites relating to knowledge, skills and other competences for course participants.

1. Ability to prepare a multimedia presentation (graphical and textual), keeping proprtions between presented contents considering their priorities and appropriate level of detail
2. Ability to present research topics, including: the presentation pace and voice, articulation, interaction with listeners

5. Learning outcomes

List of learning outcomes at level 8 of the Polish Qualifications Framework assigned to the course (mark the learning outcomes in the last column).

Symbol	Learning outcome	
	KNOWLEDGE. Doctoral student knows and understands:	
SzD_W3	the main trends in the development of the scientific or artistic disciplines covered in the curricula;	☐
SzD_W4	research methodology;	☒
SzD_W	the rules for the dissemination of scientific results, including in open access	☐

5	mode;	
SzD_W 6	the fundamental dilemmas of modern civilization;	☐
SzD_W 7	the legal and ethical conditions of scientific activity;	☐
SzD_W 8	the economic and other relevant conditions of scientific activity;	☐
SzD_W 9	basic principles of knowledge transfer to the economic and social spheres and commercialisation of results of scientific activity and know-how related to these results.	☐
	SKILLS. Doctoral student is able to:	
SzD_U2	use knowledge from different fields of science or art to creatively identify, formulate and innovatively solve complex problems or perform research tasks, in particular: - define the purpose and subject of scientific research, formulate a research hypothesis, - develop research methods, techniques and tools, and use them creatively, - draw conclusions on the basis of scientific research; critically analyse and evaluate the results of scientific research, expertise and other creative work and their contribution to knowledge development; transfer the results of scientific activities to the economic and social spheres;	☒
SzD_U3	communicate on specialised topics to the extent that they enable an active participation in the international scientific community;	☒
SzD_U4	disseminate research results, including in popular forms;	☒
SzD_U5	initiate debates and participate in a scientific discourse;	☒
SzD_U6	be able to speak a foreign language at B2 level of the Common European Framework of Reference for Languages to a level that enables them to participate in the international scientific and professional environment;	☐
SzD_U7	plan and implement an individual or collective research or creative activity, including in an international environment;	☐
SzD_U8	independently plan and act for one's own development and inspire and organize the development of others;	☐
SzD_U9	plan classes or groups of classes and implement them using modern methods and tools.	☐
	SOCIAL COMPETENCES. Doctoral student is ready to:	
SzD_K3	fulfilling the social obligations of researchers and creators, initiate public interest activities, thinking and acting in an entrepreneurial way;	☐
SzD_K4	maintaining and developing the ethos of research and creative environments, including: - carrying out scientific activities in an independent manner, - respecting the principle of public ownership of research results, taking into account the principles of intellectual property protection.	☐

6. Evaluation

Short description of the method(s) used to evaluate the learning outcomes assigned to the course, e.g., exam, test, report, presentation, etc.

The evaluation is being conducted based on the presentations and further discussion on the research progress.

7. Teaching methods
Short description of the teaching methods used during the course, e.g., multimedia presentation, discussion, literature studies, developing written documents, own work, etc.

N1. A multimedia presentation
N2. A topical discussion
N3. Individual work

8. Literature
List of primary and secondary literature used to prepare the course and including additional knowledge for participants, e.g., books, textbooks, research papers, standards, web pages, etc.

1. Literature concerning the doctoral topic.
2. How to Write a Scientific Paper: An Academic Self-Help Guide for PhD Students, Jari Saramaki, 2018
3. M. Larkin, "How to give a dynamic scientific presentation", Elsevier Connect, August 4, 2015
https://www.elsevier.com/connect/how-to-give-a-dynamic-scientific-presentation
4. N. Patel, "Technical Presentations", IEEE Books

9. Other remarks
Additional remarks, comments, (e.g., language of the course)

Course in English