**Warsaw University
of Technology**

COURSE OFFERED IN THE DOCTORAL SCHOOL

Code of the course	4606-EW-0000000-0084	Name of the course	Polish	Metodologia prowadzenia zajęć dydaktycznych
			English	Methodology of teaching
Type of the course	Researcher's Workshop			
Course coordinator	Dr. Mariusz Kostrzewski, Assoc. Prof.			
Implementing unit	Doctoral School	Scientific discipline / disciplines*		
Level of education	Doctoral Program	Semester		winter and summer semesters
Language of the course	English			
Type of assessment:	passed/not passed	Number of hours in a semester	45	ECTS credits	3
Minimum number of participants	10	Maximum number of participants	not limited	Available for students (BSc, MSc)	No

Type of classes		Lecture	Auditory classes	Project classes	Laboratory	Seminar
Number of hours	in a week	5		5-10		
	in a semester	10		35		

* does not apply to the Researcher's Workshop

1. Prerequisites

No pre-requisites for credit for other courses.

Pursuant to the Warsaw University of Technology Doctoral School programme, "Methodology of teaching" (in Polish or English version) is a compulsory course to be completed <u>during the first year of PhD education</u>.

As part of the course, the PhD student is obliged to (see also Fig. 1):

- pass a lecture entitled *Basics of university didactics*
- pass 2 of the following modules**:
  - *Modern forms of education*,
  - *Voice Emission*,
  - *Modern tools used in didactics*,
- co-teach classes of 15 hours (note: the internship related to co-teaching may be completed during full academic year in which the doctoral student undertook the course, so the internship may be carried out exactly in the first or second semester of the academic year).

No credit for a lecture, any of the 2 selected modules (workshops/projects) and/or failure to co-teaching a class (internship) will result in failing to receive credit for the whole course (marked as 'nzal' in the University's internal documentation and in USOS). If co-teaching a class is not completed in the semester in which this course is realized by a given PhD student, credit shall remain withheld until the end of the following semester.

In case of failure to pass the "Methodology of teaching", PhD student must sign up for the course in the following semester and then complete those parts of the course that were not passed in the previous edition.

Each of the PhD students, who signs up for the course accepts its regulations.

Dates for the delivery of each part in the course are given in USOS and/or on the WUT Doctoral School website and in section 7 of this document (it is subjected to possible changes for reasons beyond the control of the course coordinator and those who teach parts of the course).

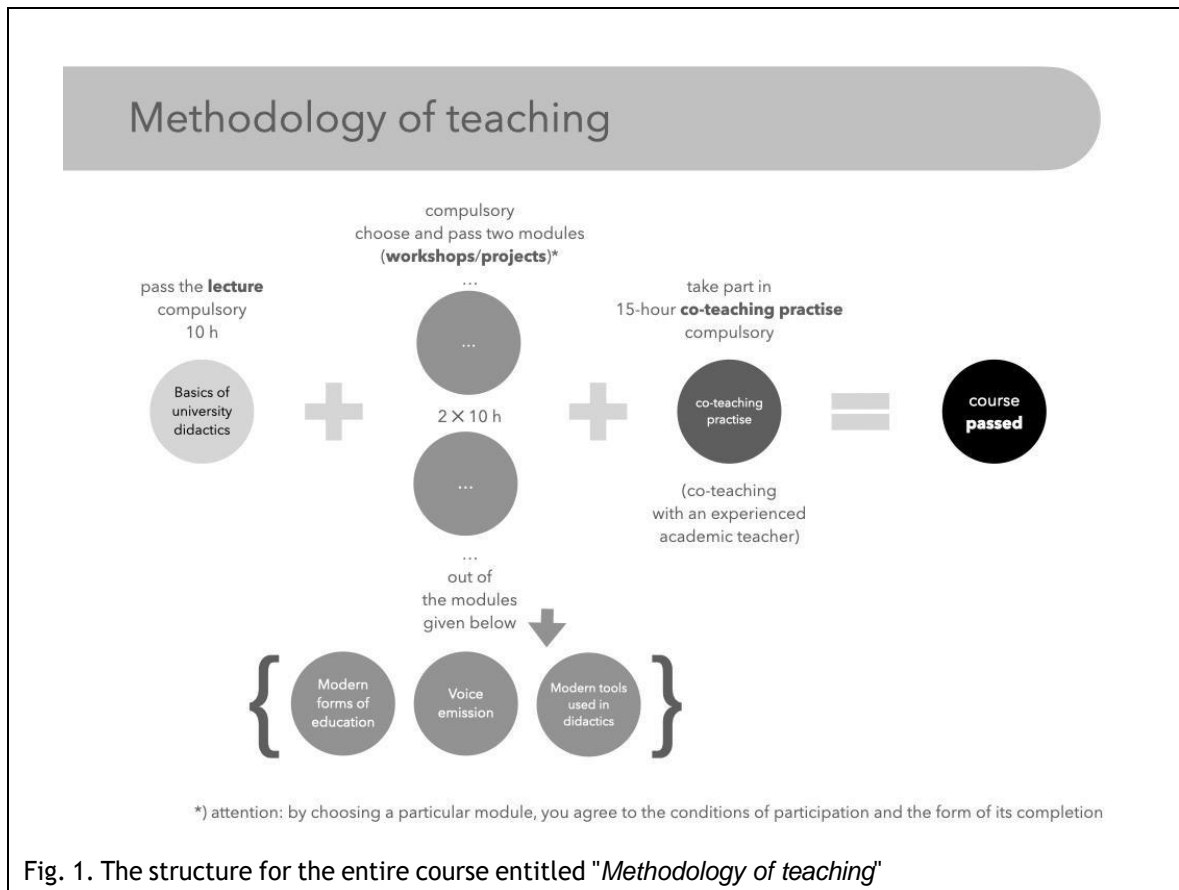** Each PhD student must choose only 2 modules (each module is described further in the course card).

Fig. 1. The structure for the entire course entitled "*Methodology of teaching*"

2. Course objectives

The aim of the course is to prepare a PhD student to plan and implement the educational process that is an essential part of the professional competence of an academic teacher independently, consciously and effectively.

3. Course content (separate for each type of classes)

Basics of university didactics

1. Basic concepts in didactics.
2. Methods and techniques of teaching adults.
3. Learning goals. David Kolb's cycle.
4. Learning in the digital age – contemporary dilemmas.
5. Methods – specificity of adult learning (knowledge structure, dominant mental functions, motivation to learn, attitude towards education, susceptibility to change, the role of control the assessment).
6. Exercise – behavioral self-portrait.

PART I

- Understanding student learning. The challenges of education in rapidly changing world. "What does it mean to be a member of university today?" Challenges-Limitations-Opportunities-Dilemmas of contemporary culture and university education. Concepts and Actual everyday life of the university.
- Introduction to the conceptual structure of didactics as a theoretical and practical science. Hierarchy of main concepts and their mutual relations. Functions and specificity of academic education. Contemporary models of higher education, including the interactive model of education in college. Relationship between the teacher's activities and the student's activities.

PART II

- Planning teaching and learning: curriculum design and development. The specificity of adult learning. Academic education tools vs the contemporary student (generational transformation)

- Designing educational activities in a university (stages, areas, instruments, decisions; methods and forms of academic work supporting thinking and reasoning).
- Teaching quality, standards and enhancement. Student and teacher interactions in the course of classes. Creating a climate conducive to stimulate education process. The dynamics of the student group: cooperation and collaboration of students.
- Stimulating students 'cognitive activity, creating teaching situations, managing students' work.

PART III

- Evaluation of the education process. Evaluation procedure and techniques. A critical review of the course and effect of activities in the teaching-learning process.

PART IV

- The specificity of didactic work of an academic teacher. Professional work ethic of a teacher. Assessment and self-assessment of the didactic work of an academic teacher.

Lecture duration per semester: 10 hours.

Modern forms of education

The workshop deals with modern forms of education. Stimulating creativity among PhD students and students, elements of *design thinking* or *double diamond* (methodology and phases, the role of empathy, prototyping and testing solutions), elements of *problem-based learning* and their use in didactics, motivating students (creativity workshops using prototyping materials, Lego blocks, etc.) will be considered and practiced.

Literature items: [7]-[9].

The module is delivered remotely via MS Teams (the instructor does not annotate the MS Teams calendar with the module's starting time).

Module duration per semester: 10 hours.

Voice emission

1. Basics of the anatomy and physiology of the phonation system.
The breathing system. Types of breathing. Abdominal press – how it functions. Diaphragm – breathing support. Vocal tract. The larynx, its build and functions. Resonate; resonating space.
Exercises.
2. Intensifying the sound. Dynamic changes during the acoustic breathing phase. The skull and its role in speech sound production. Tongue – rest position and functions during articulation.
Vowels as the musical frame of a phrase. Exercises.
3. Utterance prosody (intonation, rhythm, word stress). Word stress and its realization.
4. The breath as the element of shaping the logical and emotional aspect of an utterance.
5. Relaxing and dynamic exercises.
6. Natural voice.
7. Individual assessment of phonation habits.
8. The voice as a nonverbal aspect of communication. Body language. Self-presentation.
9. Exercise for the protection and maintenance of voice, and developing vocal identity.

Module duration per semester: 10 hours.

Modern tools used in didactics

Workshop includes discussion, skills development, demonstration, exercises, instruction, staging.

During these workshops, doctoral students learn about the concepts of innovation and creativity and discuss innovative solutions in didactics. During the workshops, modern digital tools used in education are presented (including interactive internet boards, test tools, such as online quizzes with the use of smartphones, generating QR codes for educational purposes, modern tools for creating educational games and escape rooms, online databases of free materials. presentations, internet chats, for use in class to communicate with students and much more).

Classes are conducted in the form of workshops, activating students, encouraging them to overcome internalized thinking patterns and standard organizational techniques in education.

1. Creativity and innovation. Creativity training. Thinking outside the box.
2. Innovative creation of (auto) presentations.

3. Innovation and ways of shaping it
   - Need for innovation
   - Innovation and the European Union
   - Conceptual barriers to European creativity
   - Three dimensions of innovation
   - Innovations in making training independent of space (place) - examples from Google, Multicom, Procter & Gamble.
4. An innovative way of using traditional forms of distance education. Innovative methods (immersive and zapping learning).
5. The phenomenon of hate on the Internet
6. Blog, vlog, webinar, fanpage - educational contexts of the informal Internet space
7. Edutainment - gamification, combining entertainment activities with educational activities (including geocaching, questing)
8. Virtual reality in education (augmented reality in the context of educational activities in selected areas).
9. Step-by-step planning of classes with the use of innovative digital tools. Adjusting tool to the method and type of classes.

Module duration per semester: 10 hours.

4. Learning outcomes			
	Learning outcomes description	Reference to the learning outcomes of the WUT DS	Learning outcomes verification methods*
Knowledge			
K01	A PhD student understands the methods of conducting classes using modern digital technologies.	SD_W3	presentation evaluation
K02	A PhD student knows a variety of modern tools used in education.	SD_W5	presentation evaluation
Skills			
S01	A PhD student is able to plan – in a methodologically correct way – teaching activities or groups of activities and implement them using modern methods and tools.	SD_U9	active participation during classes / presentation evaluation
S02	A PhD student is able to plan classes or groups of classes and carry them out with the use of modern methods and tools.	SD_U7	presentation evaluation
Social competences			
SC01	A PhD student is able to communicate on specialistic topics at a level enabling active participation in the international scientific environment.	SD_K2	active participation during classes / assessment of the student's work during the classes
SC02	A PhD student is prepared to fulfill the social obligations of researchers and creators and initiate action for the public interest.	SD_K3	active participation during classes
SC03	A PhD student is prepared to think and act in a creative and entrepreneurial manner.	SD_K4	active participation during classes / assessment of the

				student's work during the classes

*Allowed learning outcomes verification methods: exam; oral exam; written test; oral test; project evaluation; report evaluation; presentation evaluation; active participation during classes; homework; tests

5. Assessment criteria

***Basics of university didactics*:**

- The lecture last 10 hours. Absence is possible for 1.5 hours of classes.
- To pass: writing test (minimum 55% correct answers).

***Modern forms of education*:**

- Active participation during the course's meetings.

***Voice emission*:**

- Passing the course is based on attendance, being active during class exercises and acquiring basic skills related to breathing and forming a natural voice. These acquired skills will be assessed based on student performance during classes and based on 2 recorded tasks.

6. Literature

[1] Fry H., Ketteridge S., Marshall S. (2009) *A Handbook for Teaching and Learning in Higher Education*, Routledge.

[2] Arnold R. (2005) *Approaches to Adult Education*, International Labour Office, Cinterfor [3[Bierema L., Merriam S. (2013) *Adult Learning: linking theory and practice*, Jossey-Bass.

[4] Brookfield S. (2013) *Understanding and Facilitating Adult Learning: A Comprehensive Analysis of Principles and Effective Practices*, Jossey-Bass.

[5] Smith P. (2018) *Free Range Learning in the Digital Age: The Emerging Revolution in College, Career, and Education*, SelectBooks

[6] Knowles, Holton, Swanson (2020) *The Adult Learner*, Taylor and Francis.

[7] Vianna M., Vianna Y., Adler I.K., Lucena B., Russo B., Design thinking: business innovation, 1st eletronic edition, MJV Tecnologia ltda, Rio de Janeiro 2012, accessed at:
http://cdn2.hubspot.net/hubfs/1701231/Documents/Design_Thinking_ _The_Book/Design_Thinking_The_Book.pdf (accessed on-line: September 24th, 2022)
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http://na-magazynie.pl/wp-content/uploads/2015/03/Design-Thinking-The-Book.pdf (accessed on-line: September 24th, 2022)

[8] Stickdorn M., Schneider J. (Eds.), This is service design thinking. Basics — Tools — Cases, BIS Publishers Amsterdam 2011, accessed at:
https://ec-lcc-nnu.wikispaces.com/file/view/Service+Design+Thinking+Book.pdf (accessed on-line: March 7th, 2018)
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https://issuu.com/bis_publishers/docs/this_is_service_design (accessed on-line: September 24th, 2022)

[9] Kostrzewski M., 2018, One Design Issue – Many Solutions. Different Perspectives of Design Thinking – Case Study. In: Uden L., Hadzima B., Ting IH. (eds) Knowledge Management in Organizations. KMO 2018. Communications in Computer and Information Science, vol 877, pp. 179-190. Springer, Cham, https://doi.org/10.1007/978-3-319-95204-8_16

7. Schedule

Basics of university didactics (remote edition / online classes):

Group I:
• 2024-04-09, time: 10.00 – 14.30 • 2024-04-16, time: 10.00 – 13.00
Modern forms of education (remote edition / online classes):
Group I:
• 2024-03-11, time: 10.00 – 13.45 • 2024-03-12, time: 10.00 – 13.45
Voice emission (hybrid edition; the place of stationary meetings will be given via USOS):
Group I:
• 2024-04-06, time: 13.00 – 15.30 (online meeting) • 2024-04-13, time: 13.00 – 15.30 (stationary meeting) • 2024-04-20, time: 13:00 – 16:00 (stationary meeting)
Modern tools used in didactics (stationary edition; the place of stationary meetings will be given via USOS):
Group I:
• 2024-04-23, time: 10.00 – 14.30 • 2024-05-07, time: 10.00 – 13.00

8. PhD student's workload necessary to achieve the learning outcomes**		Number of hours
No.	Description	Number of hours
1	Hours of scheduled instruction given by the academic teacher in the classroom	45
2	Hours of consultations with the academic teacher, exams, tests, etc.	10
3	Amount of time devoted to the preparation for classes, preparation of presentations, reports, projects, homework	20
4	Amount of time devoted to the preparation for exams, test, assessments	15
	Total number of hours	**90**
	ECTS credits	**3**

** 1 ECTS = 25-30 hours of the PhD students work (2 ECTS = 60 hours; 4 ECTS = 110 hours, etc.)