(1.) Course Title: INFPHD061 Research methodology	**Credits: 6**

Course **Classification: Mandatory**

Theoretical or Practical Nature of the Course, *'training character'*[13]: Theoretical and practical (50%-50% credit)

Type of Class: lecture **number of hours**: 2/weeks in the given semester,
*(If the course is not (only) taught in Hungarian, then **the language**: **English**)*
Additional (specific**) methods and characteristics**[2] used in delivering the knowledge *(if any)*: analysis of research plans and methods, evaluation of publications, literature research

Assessment Method (Exam / Midterm Grade / **Other**[3]): exam
Additional (specific) **methods**[4] applied in knowledge assessment *(if any)*:

Course Placement in Curriculum (Semester Number): 1.

Prerequisites (*if any*): -

Course Description: **A concise yet informative description of the knowledge** to be acquired.

The aim of the course is make students master the methodology of research, the different forms of publications and the criteria for scientific publishing with the evaluation systems used, the connection between research-development-innovation, how to build aims and the research work plan, as well as to be able to work in groups to develop research proposals. Exploring different research methods and applying them to different research problems.

Themes:

- Preparation of one's own research plan.
- Methods and requirements for writing publications (articles, technical reports, diploma theses, doctoral theses, etc.), publication strategy.
- Rules for making presentations.
- Preparation of R&D project work plans.
- Exploring of research methods and their application to various research problems.
- Qualitative Research.
- Quantitative data analysis.
- Conversation Analysis & Developmental research.
- Experimental Research.
- Research in Education.
- Peer reviews.
- Research assesment.
- Ethical issues.

2-5 Most Important Required and Recommended Literature
List of required and recommended literature (notes, textbooks) with bibliographic data (author, title, publication details, (possibly pages), ISBN).

- Antoni Martínez Ballesté: Writing Scientific Papers, http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.466.7270&rep=rep1&type=pdf , 35 oldal.
- COPE Ethical Guidelines for Peer Reviewers. Version 2 September 2017 https://doi.org/10.24318/cope.2019.1.9
- Research Evaluation Metrics - https://unesdoc.unesco.org/ark:/48223/pf0000232210
- Informatics Europe - Informatics Research Evaluation, 2018.
- Research Assesment - https://www.scienceeurope.org/our-priorities/research-assessment/
- Agreement on Reforming Research Assesment 2022 - https://www.scienceeurope.org/media/y41ks1wh/20220720-rra-agreement.pdf
- Recommendations on Research Assesment Processes https://www.scienceeurope.org/media/3twjxim0/se-position-statement-research-assessment-processes.pdf
- (ed.) David H. Jonassen (2004), Handbook of Research on Educational Communications and Technology, Association for Educational Communications and Technology, Lawrence Erlbaum Associates.
- John W. Best, James V. Kahn, (2003) Research in Education, Pearson Education Inc.

List of Prescribed Professional Competencies and Competency Elements

(knowledge, skills, etc., KKK Section 8) that the course significantly contributes to developing (highlight the most important ones).

a) Knowledge

- Has a research-level understanding of the general and specific characteristics, major directions, and precisely developed boundaries of the subject area within the discipline, as well as the agreed and debated interrelations.
- Creatively comprehends the interrelations, theories, and conceptual frameworks and terminologies of the given field of study.[1]
- Possesses research methodology knowledge necessary for independent research in the given discipline/field.

b) Skills

- Capable of creative analysis of the field, synthesizing comprehensive and specific interrelations with a new perspective, and conducting appropriate evaluative and critical activities.
- Able to apply and further develop the specialized learning and problem-solving methods of the field.
- Can creatively elaborate on the novel, previously unknown practical implications of theoretical issues.

[1] **Section 108**, Article 37 of the National Curriculum Act (Nftv.) 37. lesson: a session (lecture, seminar, exercise, consultation) requiring the personal involvement of the instructor to fulfil the academic requirements specified in the curriculum, the duration of which is at least forty-five minutes and not more than sixty minutes.

[2] e.g. case studies, role play, thematic presentations, etc.

[3] e.g. continuous debriefing, mid-year report

[4] e.g. request for case studies, thematic papers, essays, business, organisational plans, etc.

- Capable of planning and executing new projects, conducting research in the field, and developing new techniques and approaches.
- Able to identify unforeseen professional problems and uncover the detailed theoretical and practical background necessary for their resolution at a research level.
- Can construct and communicate new relations relevant to the field, as well as comprehensive interrelations significant for personal and communal existence.

c) Attitudes

- Represents and further develops the relations that contribute to the process of human self-creation based on the field's characteristics.
- Possesses an interest and learning ability that enable identifying and solving currently unpredictable research problems in the field.
- Demonstrates a firm professional commitment, a continuous dedication to exploring new approaches, and an acceptance of the necessity for persistent effort.

d) Autonomy and Responsibility

- Builds and initiates new knowledge areas with creative independence and proposes new practical solutions.
- Participates in formulating theoretical and practical questions with a leadership role and high-level cooperation.
- Engages as an equal discussion partner with professionals in the field.
- Takes responsibility for raising and addressing new ethical questions concerning theoretical and practical aspects of the profession.

Course responsible (name, position, academic degree): **Dr. Zoltán Horváth, professor, PhD; Dr. Márta Turcsányi Szabó, associate professor, PhD**

Instructor(s) involved in teaching the course (if any) (name, position, academic degree):
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