(1.) Course Title: INFPHD185 Chapters of informatics methodology research seminar III.	**Credits: 6**
Course **Classification: Optional**	
Theoretical or Practical Nature of the Course, *'training character'*[13]: 30/70 (credit%)	
Type of Class: practice and **number of hours**: **30** 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)*: Independent critical analysis of assigned academic publications and articles.	
Assessment Method (Exam / Midterm Grade / **Other**[3]): Midterm Grade **Additional** (specific) **methods**[4] applied in knowledge assessment *(if any)*: Development of an independent learning material related to the course topic, and its presentation and oral defense.	
Course Placement in Curriculum (Semester Number): 2	
Prerequisites (*if any*): -	

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

Problems of solving specific tasks
A. Identification, correction, and prevention of typical errors.
B. Issues related to measuring progress during the solution of larger, more complex tasks.
C. How to effectively prepare students for a given set of tasks (e.g. a written test or examination).
D. Task-specific preparation requirements for different forms of assessment
(i.e. typical student mistakes, commonly misunderstood concepts, and expectations frequently emphasized by task designers).
E. Analysis of upper-secondary school final examination tasks and competition problems.

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).

1. Black, P., & Wiliam, D. (1998). Assessment and classroom learning. Assessment in Education: Principles, Policy & Practice, 5(1), 7–74. https://doi.org/10.1080/0969595980050102
2. Bennedsen, J., & Caspersen, M. E. (2007). Failure rates in introductory programming. ACM SIGCSE Bulletin, 39(2), 32–36. https://doi.org/10.1145/1272848.1272879
3. Hattie, J. (2009). Visible learning: A synthesis of over 800 meta-analyses relating to achievement. Routledge.
4. Lister, R., Simon, B., Thompson, E., Whalley, J. L., & Prasad, C. (2004). A multi-national study of reading and tracing skills in novice programmers. ACM SIGCSE Bulletin, 36(4), 119–150. https://doi.org/10.1145/1041624.1041673
5. Sadler, D. R. (1989). Formative assessment and the design of instructional systems. Instructional Science, 18(2), 119–144. https://doi.org/10.1007/BF00117714

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.
- 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.

[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.

- 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. Andor Abonyi-Tóth, associate professor, PhD.**

Instructor(s) involved in teaching the course (if any) (name, position, academic degree):
Dr. Győző Horváth, associate professor, PhD.