

General Research Methods

co-ordinator: Dr. László Csernoch vice-rector

NEPTUN code: DEAKIDI

Place: <https://elearning.unideb.hu/course/view.php?id=5347>

Lectures: Fridays 14.00 – 15.30 (first lecture: 12th February, 2021.)

1 credit

final test

Obligatory for 1st year PhD students, optional for the others.

12th February, 2021.

Dr. László Fésüs: Code of conduct for research integrity. Science ethics codes in Europe and Hungary

The lecture overviews moral and ethical aspect of research and the need to have codes of conduct for maintaining research integrity. The recently revised European Code, written by ALLEA (All European Academies) and declared as the official document of the European Union, is compared to the Code of Science Ethics of the Hungarian Academy of Sciences applied throughout the country. These codes cover all aspect of good research practices including publishing activities. It will be discussed during the lecture what the most serious violation of research ethics are and how they should be handled in institutions and by the research community.

26th February, 2021.

Dr. Tamás Bene: Innovation management in practice

Commercialising intellectual property. From idea to investment, the path across the death valley. Conceptual basics, incubation, acceleration, business model, lean methodology. The role of a university incubator in shortening time-to-market, providing education, training and vital business contacts for start-ups.

12th March, 2021.

Dr. József Baranyi: Emergence of complexity, from observations to predictions

What dilemmas do we face when our inference is based on uncertain knowledge and observations? How can mathematical modelling help? What role do stochastic randomness and deterministic laws play in real life events and in their predictions? How does a system of complex interactions introduce chaos in otherwise deterministic predictions? In this talk we discuss these questions via both classical and current examples from life- social and engineering sciences.

26th March, 2021.

Dr. Tamás Bene: Research collaboration, IP protection and the basics of university technology transfer

Overview of the typical forms of research collaboration. MTA, CDA, CRADA, NDA, DESCAs: basic types of research agreements. Evolution of the IP protection system and detailed overview of the forms of intellectual property. Copyright issues in the research management process. IP management at universities in Europe, in the USA and at the University of Debrecen. Publish or patent? What is the value of my patent? Assignment, license, spin-off or start-up? Guide to the technology transfer activity at universities.

9th April, 2021.

Dr. Zoltán Barta: How to measure scientific activity

Why and how scientific activity should be measured. What kind of numerical indicators should be used. Summary, survey and applications of the most basic indicators (e.g. impact factor, citation number, Hirsch index).

16th April, 2021.

Judit Fazekas-Paragh: From the choice of topic to publication: information resources and tools in scholarly communication I.

How to find appropriate material to write an article? How to download them from the internet? What tools can help us meet the formal requirements of scholarly articles (citation, references, etc...)? What are the possibilities of academic publication. How to manage our professional activities to be recognized. The lecture presents the process of scholarly communication through exact examples.

23rd April, 2021.

Fazekas-Paragh: From the choice of topic to publication: information resources and tools in scholarly communication II.

Knowledge management. The role of visibility in scholarly communication, networked researcher; The method and resources of enhancing visibility - Research networks; The improved iDEa Academic Profiles. Open access in scholarly communication (possibilities and ways of OA publishing; the rights and obligations of researchers; OA as part of the institutional publishing policy).

7th May, 2021.

Dr. Mihály Fónai – Dr. Éva Huszti: Types of research, groups of research methods and structure of researches.

Types of researches: basic research, applied researches and action research. The logic of research, the inductive and the deductive logic, their characteristics and their effect on the structure of research. Correlations between types of logic of researches and type of researches. The main features of qualitative and quantitative research methods and their scope of application. The steps of social science researches from problem definition to publication of results.

14th May, 2021.

Online Test

Presentations, slides of the lectures will be available at the university portal:

<https://elearning.unideb.hu/course/view.php?id=5347>