COURSE DESCRIPTION CARD - SYLLABUS

Course name
ETHICAL FOUNDATIONS AND BEST PRACTICES IN CONDUCTING SCIENTIFIC RESEARCH [S5SD1>PEDP]

Course

Proposed by Discipline
–

Year/Semester
1/1

Level of study
Doctoral School

Course offered in
English

Form of study
full-time

Requirements
compulsory

Number of hours

Lecture
4

Laboratory classes
0

Other
0

Tutorials
0

Projects/seminars
0

Number of credit points

1,00

Coordinators

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Lecturers

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Prerequisites

1) Familiarizing lecture listeners with the PP Doctoral Student Code of Ethics, available on the website of the Doctoral School: https://phdschool.put.poznan.pl/kodeks-etyki-doktoranta-pp 2) Basic knowledge of ethical principles from earlier stages of education. 3) Basic knowledge of research methodology.Ability to use academic literature and databases. 4) Ability to use academic literature and databases.

Course objective

The objective of this course is to introduce students to the fundamental principles of research ethics and scientific integrity standards. The course prepares students to independently plan and conduct research in accordance with applicable laws and academic good practices.

Course-related learning outcomes

Knowledge (The student knows and understands):
- SzD_W06: Economic, legal, ethical and other vital conditions related to scientific activity.
- SzD_W04: Principles of disseminating results of scientific activity, also in an open access mode.

Skills (The student is able to):
- SzD_U02: Critically analyze and assess scientific research results, properly cite sources, create

references, and manage research data (FAIR principles).
- SzD_U03: Transfer results of scientific activity, critically evaluate the ethical dimension of their own and others' research projects.

Social Competences (The student is ready to):
- SzD_K01: critically assess achievements within a given scientific discipline, taking into consideration ethocal aspects.
- SzD_K04: fulfilling the social obligations of researchers and creators.

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Assessment Methods and Criteria:
- Formative assessment: Active participation in discussions and analysis of assigned case studies.
- Summative assessment: Written final exam (single-choice test or open-ended questions) at the end of the semester.
- Passing criteria: Obtaining a minimum of 51% of the total points on the final exam.

Programme content

1. Introduction to research ethics: History, definitions, and institutions safeguarding ethics (e.g., PAS - Polish Academy of Sciences).
2. Research misconduct: Discussion on fabrication, falsification, and plagiarism (FFP).
3. Authorship and co-authorship: Criteria for publication authorship, ghostwriting, and guest authorship phenomena.Intellectual property: Copyright law in scientific work, open licenses (Creative Commons).
4. Ethics in human and animal research: The role of ethics committees, informed consent, and personal data protection (GDPR).
5. Research Data Management (Data Management Plan – DMP): Open data sharing.
6. FAIR principles, and preventing data manipulation.Peer review process and conflicts of interest: Good practices in reviewing and integrity in grant proposal evaluations.

Course topics

1. Introduction to research ethics: History, definitions, and institutions safeguarding ethics
2. Research misconduct:
3. Authorship and co-authorship:
4. Research Data Management
5. FAIR principles, and preventing data manipulation.

Teaching methods

- Multimedia lecture presentations.
- Case studies analysis of real-world scientific misconduct.
- Classroom discussions on moral dilemmas in science.

Bibliography

Primary Literature:
- Code of Ethics for Research Workers (current edition by the Polish Academy of Sciences).
- Act of 4 February 1994 on Copyright and Related Rights (Polish Copyright Act).Good Practices in Review Procedures in Science, Ministry of Science and Higher Education.

Supplementary Literature:
- The European Code of Conduct for Research Integrity (ALLEA).
- Selected articles from scientific journals regarding publication ethics (COPE guidelines).

Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,00
Classes requiring direct contact with the teacher	4	0,00
Doctoral student's own work (literature studies, preparation for laboratory classes/tutorials, preparation for tests/exam, project preparation)	21	1,00