

**COURSE DESCRIPTION****1. Program data**

1.1 Higher education institution	"ALEXANDRU IOAN CUZA" UNIVERSITY OF IASI
1.2 Faculty	CHEMISTRY
1.3 Department	DOCTORAL SCHOOL OF CHEMISTRY
1.4 Field of study	CHEMISTRY
1.5 Cycle of studies	DOCTORATE
1.6 Study Programme/Qualification	DOCTOR OF CHEMISTRY

2. Discipline data

2.1 Name of the discipline	ETHICS AND ACADEMIC INTEGRITY – ETHICS IN SCIENTIFIC RESEARCH						
2.2 Course Activity Holder	Prof. univ. dr. habil. Cecilia ARSENE Prof. univ. dr. Ionel MANGALAGIU Prof. univ. dr. habil. Romeo Iulian OLARIU Prof. univ. dr. Aurel PUI						
2.3 Owner of seminar activities							
2.4 Year of study	I	2.5 Semester	1	2.6 Type of evaluation	C	2.7 Discipline regime	OB

* OB – Mandatory / OP – Optional

3. Total estimated time (hours per semester and teaching activities)

3.1 Number of hours per week	1	of which: 3.2. course	1	3.3.Seminar	-
3.4 Total hours in the curriculum	14	of which: 3.5.course	14	3.6. Seminar	-
Distribution of the time fund					hours
Study by textbook, course material, bibliography and others					14
Additional documentation in the library, on specialized electronic platforms and in the field					40
Preparation of seminars/laboratories, assignments, papers, portfolios and essays					20
Tutoring					4
Examination					4
Other activities					4
3.7 Total individual study hours					86
3.8 Total hours per semester					100
3.9 Number of credits					4

4. Preconditions (if applicable)

4.1 Curriculum	
4.2 Competences	

5. Conditions (if applicable)

5.1 Course Conduct	
5.2 Conduct of the laboratory	

6. Specific competences accumulated

Professional skills	<p>To conceive and carry out original research, based on advanced methods that lead to the development of scientific, technological knowledge and/or research methodologies.</p> <p>Critical-constructive evaluation of projects and results of scientific research, assessment of the state of theoretical and methodological knowledge; identifying the priorities of knowledge and application to the field</p> <p>Selection and application of principles, theories and advanced methods of knowledge, transfer of methods from one field to another, interdisciplinary approaches to solve theoretical and practical problems, new and complex</p> <p>The use of advanced principles and methods for explaining and interpreting, from multiple perspectives, new and complex theoretical and practical situations/problems, specific to the field.</p> <p>Systematic, advanced knowledge of concepts, research methods, controversies and new hypotheses specific to the field; communication with specialists in related fields.</p>
Transversal competence	<p>Development of projects centered on creativity, as a basis for self-realization</p> <p>Assuming responsibility and capacity to organize and manage the activity of professional groups, scientific research or organizations/institutions</p> <p>Initiation and innovative development of complex theoretical and practical projects</p>

7. Objectives of the discipline (from the grid of specific competences accumulated)

7.1. General objective	<p>The course aims to raise awareness among doctoral students about the increasing frequency of unethical practices in the field of academic research, to debate and recognize the literature on ethical behavior and highlights the fact that ethics and unethical behavior are the result of choice and are not due to chance. The material discussed during the course and seminars encourages all students to select, in the development of their own careers, only those individual values that will provide them with moral and professional support of high ethical standing, because it was absolutely clear that personal motivations and preferences can override any other factor that contributes to subsequent professional development.</p>
7.2. Specific objectives	<p>Upon successful completion of this discipline, students will be able to:</p> <ul style="list-style-type: none"> ▪ examine the potential for unethical behavior of researchers and academics; ▪ know of documented examples that highlight where the problem could have been stopped before it became an ethical problem; ▪ To evaluate ethically what the academic world offers in order to continue their education and to seek employment opportunities.

8. Content

8.1	Course	Teaching methods*	Observations (hours and bibliographic references)
1.	Ethical standards and academic freedom.	Lecture, explanation, conversation, description, problematization	(2 hours, [1,4])
2.	Codes of ethics. Ethics and research.	Lecture, explanation, conversation, description, problematization	(2 hours, [1,4])
3.	Integrity in research. Collection of research data. Reporting of research data Misuse of data.	Lecture, explanation, conversation, description, problematization	(2 hours, [1,4])
4.	Integrity in research. Data falsification and fabrication. Plagiarism and theft. Intellectual.	Lecture, explanation, conversation, description, problematization	(2 hours, [1,4])
5.	Integrity in research. Data falsification and fabrication. Plagiarism and theft. Intellectual.	Lecture, explanation, conversation, description, problematization	(2 hours, [1,4])

6.	Data manipulation. Improper use of data. The data obtained in the research. Erroneous research. Data expansion. Data distortion. Rejecting or ignoring data. Publication and communication. Literature. Diaries. Data for publication.	Lecture, explanation, conversation, description, problematization	(2 hours, [1,4])
7.	Enforcement of codes of ethics. Conflict of interest. Data manipulation. The white lie. Reporting of deviations. Mechanisms for reporting deviations. Necessary actions.	Lecture, explanation, conversation, description, problematization	(2 hours, [1,4])
Bibliography <ol style="list-style-type: none"> 1. James G. Speight, Ethics in the University, Scrivener Publishing, Wiley, 2016. 2. Simon Blackburn, Ethics: A Very Short Introduction, Oxford University Press, USA, 2009. 3. James R. Otteson, Actual Ethics, Cambridge University Press, 2006. 4. Robert A. Schultz, Contemporary Issues in Ethics and Information Technology IRM Press, 2005. 			

9. Corroborating the content of the discipline with the expectations of the representatives of the community, professional associations and representative employers in the field related to the program

After completing and passing the discipline, the student will have the necessary knowledge to be able to assess the potential of unethical behavior of researchers and academics, will know where to stop in order to avoid the appearance of an ethical problem in scientific research.

10. Rating*

Activity Type	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Weight in final grade (%)
10.4 Course	Correctness of answers – understanding and correct application of the issues dealt with in the course.	Colloquium – Lecture on a research ethics problem	100
10.5 Seminar			
10.6 Minimum Performance Standard			
<ul style="list-style-type: none"> ▪ Identification of the main activities that are potentially generating problems of ethics in scientific research and academic integrity. ▪ Knowledge of the ways to avoid the occurrence of an ethical problem in scientific research. 			

Date of completion
26.09.2024

Course holder
Prof. univ. dr. habil. Cecilia ARSENE
Prof. univ. dr. Ionel MANGALAGIU
Prof. univ. dr. habil. Romeo Iulian OLARIU
Prof. univ. dr. Aurel PUI

Seminar Holder

Date of approval

Director of the Doctoral School of Chemistry
Prof. univ. dr. habil. Cecilia ARSENE