COURSE DESCRIPTION

1. Programme Identification Data

1.1 Higher Education Institution	**„ALEXANDRU IOAN CUZA" UNIVERSITY OF IAȘI**
1.2 Faculty	**FACULTY OF CHEMISTRY**
1.3 Department / Doctoral School	**DOCTORAL SCHOOL OF CHEMISTRY**
1.4 Field of Study	**CHEMISTRY**
1.5 Cycle of Studies	**DOCTORATE**
1.6 Study Programme / Qualification	**ADVANCED UNIVERSITY STUDIES – DOCTORAL SCHOOL OF CHEMISTRY / PhD IN CHEMISTRY**

2. Course Identification Data

2.1 Course Title			**ACADEMIC WRITING AND DISSEMINATION OF RESEARCH RESULTS – MODULE II**				
2.2 Course coordinator (lectures)			**Prof. univ. dr. Ionel MANGALAGIU** **Prof. univ. dr. habil. Romeo-Iulian OLARIU** **Prof. univ. dr. Aurel PUI**				
2.3 Seminar coordinator			**-**				
2.4 Year of study	**I**	**2.5** Semester	**1**	**2.6** Type of assessment	***C**	**2.7** Disciple regime	****OC**

*[E – exam / C – colloquium] **[CC = Compulsory Course / OC = Optional Course]

3. Estimated Total Workload (hours per semester)

3.1 Hours per week	**0.75**	**3.2** Lectures	**0.75**	**3.3** Seminars	**-**
3.4 Total hours according to the curriculum	**10.5**	**3.5** Lectures	**10.5**	**3.6** Seminars	**-**

Time allocation	hours
Study based on textbooks, course materials, bibliographic sources, and other relevant resources	15
Additional research in the library, on specialized electronic platforms, and in the field	20
Preparation for seminars, assignments, papers, portfolios, essays	15
Academic tutoring	4
Assessment activities	4
Other activities	6.5

3.7 Total hours of individual study	64.5
3.8 Total hours per semester	75
3.9 Number of credits	**3**

4. Preconditions (if applicable)

4.1 Curriculum prerequisites	Completion of a Master's degree (or equivalent) and enrolment in the doctoral study programme in Chemistry, according to the regulations of the Doctoral School, as well as completion completion of Module I – Academic Writing and Dissemination of Research Results or equivalent.
4.2 Competences prerequisites	Basic competencies in academic and scientific writing, the ability to critically analyze specialized literature, and digital competencies related to the use of personal computers and common software applications (e.g., Microsoft Office: Word, PowerPoint, Excel, Outlook).

5. Conditions (if applicable)

5.1 Course course	Appropriate facilities for the conduct of doctoral teaching activities, equipped with a video projector and a PC, with access to the internet, the institutional IT infrastructure, and specialized

	resources (scientific databases relevant to the field of Chemistry). Compliance with institutional regulations governing the organization of doctoral studies.
5.2 Conduct of the seminar	-

6. Specific competences accumulated

Professional competences	• Critical and constructive evaluation of scientific manuscripts, including the analysis of structure, argumentation, methodological adequacy, and relevance to the current state of knowledge in chemistry. • Application and transfer of advanced research methods, supported by the appropriate use of data analysis, interpretation, and presentation tools, including statistical methods. • Advanced interpretation of research results from multiple perspectives and their critical integration into relevant international scientific literature. • Knowledge and application of scientific communication standards and editorial norms, including coherent academic argumentation regarding methodological choices and original research contributions..
Transversal competences	• Autonomous professional and personal development through creativity and critical reflection in research activities and scientific dissemination. • Assumption of professional responsibility within the academic environment, including organization, coordination, and collaboration in research teams, as well as the management of academic relationships with co-authors, reviewers, and editors. • Initiation and innovative development of complex theoretical and practical approaches, including the writing, evaluation, and review of scientific manuscripts, in compliance with principles of research ethics, integrity, and good academic practice.

7. Course Objectives (derived from the acquired competences)

7.1. General objective	The course aims to develop advanced competencies for the critical evaluation, writing, and dissemination of scientific manuscripts, through an in-depth understanding of the structure of scientific works, the stages of the editorial process, and the principles of research ethics and academic integrity specific to doctoral studies.
7.2. Specific objectives	Upon successful completion of the course, the doctoral student will be able to: • critically analyze the main components of a scientific manuscript in relation to the quality of experimental data and their role in supporting scientific conclusions; • apply the stages of scientific manuscript development, from structural design to preparation for submission; • evaluate the scientific publication process, including journal selection, the roles of editors and reviewers, and the management of peer-review feedback; • apply principles of good practice in scientific writing and publication to ensure quality, transparency, and research reproducibility; • identify and prevent unethical practices in education and research, in accordance with standards of ethics, academic integrity, and professional conduct.

8. Content

8.1	**Lecture Topics**	**Teaching methods***	**Notes** (hours / references)
1.	Evaluators of scientific articles and the role of the journal editor.	Interactive lecture, explanation, conversation and academic debate, critical analysis of contents and problematization of situations specific to academic research and writing	(2 hours, [1÷5])
2.	Use of statistical methods in scientific research. Non-representative data and misinterpretations.	Interactive lecture, explanation, conversation and academic debate, critical analysis of contents and problematization of	(2 hours, [1÷5])

		situations specific to academic research and writing	
3.	Methodological bias in analytical methods. Improper data selection and use.	Interactive lecture, explanation, conversation and academic debate, critical analysis of contents and problematization of situations specific to academic research and writing	(2 hours, [1÷5])
4.	Conflict of interest, data manipulation and reporting of research results.	Interactive lecture, explanation, conversation and academic debate, critical analysis of contents and problematization of situations specific to academic research and writing	(2 hours, [1÷5])
5.	Academic Writing and Intellectual Property Law	Interactive lecture, explanation, conversation and academic debate, critical analysis of contents and problematization of situations specific to academic research and writing	(1.5 hours, [1÷5])
6.	Academic Writing and Scientific Recognition (Authorship, Citation, Academic Visibility)	Interactive lecture, explanation, conversation and academic debate, critical analysis of contents and problematization of situations specific to academic research and writing	(1 hour, [1÷5])

*In cases of force majeure, teaching activities may be conducted online, in accordance with current legislation.

Bibliography

1. Hınız, G. Research Ethics and Ethical Behavior in Research. In: Abu-Shaheen, A.K., Hamza, M.A., Marar, S. (eds) Introduction to Research Ethics and Academic Integrity, Springer, **2025**.
2. Ron Iphofen (ed.), Handbook of Research Ethics and Scientific Integrity, Springer Nature Switzerland AG **2020**.
3. James G. Speight, Ethics in the University, Scrivener Publishing, Wiley, **2016**.
4. Simon Blackburn, Ethics: A Very Short Introduction, Oxford University Press, USA, **2009**.
5. Robert A. Schultz, Contemporary Issues in Ethics and Information TechnologyIRM Press, **2005**.

9. Learning Outcomes

Knowledge and understanding	• In-depth understanding of the scientific editorial process, including peer-review mechanisms and the role of journal editors. • Knowledge of criteria for assessing the quality, relevance, and impact of scientific research in chemistry. • Knowledge of advanced principles of data reporting, statistical analysis, and risks related to data misinterpretation. • Understanding of the regulatory and ethical framework governing academic integrity, intellectual property, and conflicts of interest in scientific publishing.
Application and analysis	• Critical analysis of scientific manuscripts, including structure, argumentation, methodology, and data use. • Application of advanced methods for data presentation, interpretation, and validation, avoiding bias and misrepresentation. • Critical integration of original research results into the relevant international scientific literature. • Management of the manuscript review process through analysis and integration of peer-review feedback.
Critical Assessment and Accountability	• Identification and evaluation of ethical and methodological risks in scientific writing and publication. • Substantiation of editorial and methodological decisions in accordance with good academic practice. • Assumption of professional responsibility for the content, accuracy, and integrity of scientific manuscripts.

	• Application of principles of good conduct in interactions with editors, reviewers, and co-authors.
Academic Communication	• Coherent and rigorous written communication of research results at the level required by international scientific journals. • Adaptation of scientific discourse to editorial standards and specialized academic audiences. • Justification and defense of the original contribution of research in academic and scientific evaluation contexts.

10. Correlation of the course content with the expectations of community representatives, professional associations, and representative employers in the field related to the program.

The content of the course *Academic Writing and Dissemination of Research Results – Module II* is aligned with the expectations of the academic and research community, professional associations, and representative employers in the field of Chemistry. This alignment is achieved through the development of advanced competencies in the writing, evaluation, and dissemination of scientific research results, in accordance with international academic, ethical, and editorial standards.
Upon completion of the course, doctoral students acquire the ability to develop, critically evaluate, and revise a scientific manuscript suitable for publication, as well as to identify, prevent, and manage ethical and academic integrity issues arising in the research and publication process, in line with international academic and professional requirements.

11. Assessment

Activity	**11.1 Assessment criteria**	**11.2 Assessment methods**	**11.3 Weight in final grade (%)**
11.4 Lectures	Critical application of advanced academic writing principles; evaluation of manuscript structure, argumentation, data use, and compliance with ethical standards.	Colloquium: presentation and reasoned discussion on the development and evaluation of a scientific manuscript.	100
11.5 Seminars			
11.6 Minimum Performance Standard			
In order to pass the discipline, the doctoral student must demonstrate: • the ability to identify and critically analyze the main components of a scientific manuscript and their role in supporting argumentation and conclusions; • knowledge of the stages of manuscript preparation and scientific publication, including interaction with editors and reviewers; • the ability to recognize, prevent, and appropriately address ethical and academic integrity issues in scientific writing and publishing; • application of principles of good research and publication conduct, in accordance with academic and editorial standards.			

Date of completion
26.09.2025

Course coordinator

Prof. univ. dr. Ionel MANGALAGIU

Prof. univ. dr. habil. Romeo-Iulian OLARIU

Prof. univ. dr. Aurel PUI

Seminar coordinator

Date of approval
29.09.2025

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