

## COURSE DESCRIPTION

Practical stage for the elaboration of dissertation

Academic year 2026-2027

### 1. Programme-related data

1.1. Higher Education Institution	Babeş-Bolyai University
1.2. Faculty	Chemistry and Chemical Engineering
1.3. Department	Chemistry
1.4. Field	Chemistry
1.5. Level of study	Master
1.6. Degree programme / Qualification	Chemical biology in life and medical sciences
1.7. Form of education	Full-time education

### 2. Course-related data

2.1. Course title	Practical stage for the elaboration of dissertation			Course code	CME8127
2.2. Course coordinator	Coordinator				
2.3. Seminar coordinator	coordonator				
2.4. Year of study	1	2.5. Semester	2	2.6. Type of assessment	Progress check
2.7. Course status	Compulsory			2.8. Course type	Specialisation subject

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

3.1. Number of hours per week	8	of which: 3.2. course	0	3.3. laboratory	8
3.4. Total of hours in the curriculum	56	of which: 3.5. course	0	3.6. laboratory	112
<b>Time allocation for individual study (IS) and self-taught activities (ST)</b>					<b>hours</b>
Learning from textbooks, course materials, bibliography, and notes (IS)					30
Additional research in the library, on subject-specific electronic platforms, and on-site					40
Preparing seminars/ laboratories/ projects, assignments, reports, portfolios, and essays					30
Tutoring (professional guidance)					30
Examinations					10
Other activities					
<b>3.7. Total hours of individual study (IS) and self-taught activities (ST)</b>				<b>140</b>	
<b>3.8. Total hours per semester</b>				<b>252</b>	
<b>3.9. Number of credits</b>				<b>10</b>	

### 4. Prerequisites (where applicable)

4.1. curriculum-related	Basic knowledge from undergraduate level courses
4.2 skills-related	Minimum skills and knowledge of technical editing of scientific materials

### 5. Specific conditions (where applicable)

5.1. course-related	Not the case
5.2. seminar/laboratory-related	1. Students will follow the dissertation development program established by the dissertation supervisor (scientific supervisor). 2. Students will carry out the documentation using existing sources in specialized libraries, international electronic databases and those made available by the dissertation supervisor. 3. Students will master the provisions of the Guide for the Framework Content of the Dissertation. 4. Students will know the objectives, means, stages of dissertation development. The dissertation will be handed over to the dissertation supervisor (scientific supervisor).

### 6.1. Competencies resulting from the completion of the degree programme (as referred to in the curriculum)<sup>1</sup>

Professional competencies	
Competency code	Competency
PC1	Formulating solutions for solving complex issues of biochemistry and applications of chemistry and its methods and tools in biological systems based on the knowledge and application of advanced concepts, methods from the field of biochemistry, genetics, molecular biology, and bioinformatics.
PC2	Knowledge and application of advanced bioanalytical techniques for understanding of specific interactions in biological systems.
Transversal competencies	
Competency code	Competency
TC2	Familiarization with new scientific research strategies: systematic research of specialized literature, design and practice of experiments.
TC3	Designing, planning and performing an individual scientific, multidisciplinary research project.

### 6.2. Learning outcomes relevant to the degree programme (as referred to in the curriculum)<sup>2</sup>

Learning outcomes targeted by the subject		
Competency code	Knowledge and comprehension	Specific academic skills
CP3, CP6	6. The student/graduate knows the basic principles of a (bio)process, the stages of technology development, and methods for separating useful products.	6. The student/graduate proposes technologies for obtaining useful products, including their separation/purification steps.

### 7. Subject-specific learning outcomes

Knowledge and comprehension	
1.	Understanding the structure and requirements of a publishable scientific article, and the ability to integrate original experimental results within the framework of a master's dissertation.
2.	Knowledge of research methodologies for collecting, analyzing, and systematizing original experimental data, and understanding how to contextualize findings within the relevant scientific literature.
Specific academic skills	
1.	Ability to design and carry out an original research project — including selecting appropriate methods and instruments, interpreting results, and formulating well-argued conclusions in the format of a scientific article.
2.	Ability to communicate scientific findings effectively through written dissertation and oral defense, demonstrating the capacity to valorize research outcomes in an academic and professional context.

### 8. Contents

8.1. Seminar + laboratory	Teaching and learning methods	Remarks <sup>3</sup>
8.1.1. Design & preparation of the experimental activities/applications for achieving the original elements of the dissertation.	Explanation; Conversation; Description; Problematization	8 hours

<sup>1</sup> The professional and/or transversal skills targeted by the subject for which the course description is prepared will be copied from the curriculum of the degree programme. For each competency, the complete entry, including the competency code, will be copied with the exact wording that appears in the curriculum, without any changes. If no competency is copied from either of the two categories, the row corresponding to that category is deleted from the table.

<sup>2</sup> The learning outcomes relevant to the degree programme and targeted by the subject for which the course description is prepared will be listed. The entries, copied without any changes from the Curriculum by subject type (Core Subject/Specialisation Subject/Complementary Subject), are listed under the corresponding competency.

<sup>3</sup> For example, organisational aspects, recommendations for students, specific aspects relating to the course/seminar, such as inviting experts in the field, etc.

<b>8.1.2. -8.1.14</b> Performing the experimental activities/original applications, required for the dissertation work	Explanation; Conversation; Description; Problematization	13 x 8 hours
Bibliography 1. Bibliographic sources mentioned in the subject sheets of the CBSVM program curriculum. 2. Electronic databases (Science Direct, Scopus, SpringerLink, Web of Science, Wiley Journals, Proquest Journals, etc.) 3. Bibliographic sources indicated by the dissertation supervisor (scientific supervisor).		

## 9. Evaluation

Type of activity	9.1 Evaluation criteria <sup>4</sup>	9.2 Evaluation methods <sup>5</sup>	9.3 Percentage in the final grade
laboratory	Presentation of the methods, techniques, and instruments suitable for achieving the research objectives, presentation of how the original research activities were carried out	Assessment of the experimental work carried out – oral examination	100%
9.6 Minimum standard for passing			
✓ A minimum grade of 5 in each evaluated subcategory.			

## 10. SDG labels (Sustainable Development Goals)<sup>6</sup>

	<input type="radio"/>	Sustainable Development Generic Label						
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<sup>4</sup> The evaluation criteria must directly reflect the learning outcomes targeted at the level of the degree programme respectively at the level of the subject. More specifically, the learning outcomes set out in the expected learning outcomes are assessed.

<sup>5</sup> Both final evaluation methods and ongoing evaluation strategies should be established.

<sup>6</sup> Select a single label which, according to the [Implementation of SDG labels in the academic process](#), best matches the subject. If the subject addresses sustainable development in a generic manner (i.e. by presenting/introducing the general framework of sustainable development, etc.), then the Sustainable Development generic label may be applied. If none of the labels describe the subject, select the last option: “No label applies.”

 10 INEQUALITĂȚI REDUSE	 11 ORĂȘE ȘI COMUNITĂȚI DURABILE	 12 CONSUM ȘI PRODUCȚIE RESPONSABILĂ	 13 ACȚIUNE CLIMATICĂ	 14 VIAȚĂ ACVATICĂ	 15 VIAȚĂ TERESTRĂ	 16 PACE, JUSTIȚIE ȘI INSTITUȚII EFICIENTE	 17 PARTENERIATE PENTRU REALIZAREA OBIECTIVELOR	No label applies
								

Date of entry:  
20.04.2026

Signature of course coordinator

Signature of seminar coordinator

Date of approval in the department:  
24.04.2026

Signature of the head of department

Prof. Dr. habil. ing. Monica Ioana Toșa