

# SYLLABUS

## 1. Information about the programme

|                                     |                                               |
|-------------------------------------|-----------------------------------------------|
| 1.1 Higher education institution    | <b>Babeş-Bolyai University of Cluj-Napoca</b> |
| 1.2 Faculty                         | <b>Environmental Science and Engineering</b>  |
| 1.3 Department                      | <b>Environmental Analysis and Assessment</b>  |
| 1.4 Field of study                  | <b>Environmental Engineering</b>              |
| 1.5 Study cycle                     | <b>Bachelor</b>                               |
| 1.6 Study programme / Qualification | <b>Environmental Engineering</b>              |

## 2. Information on the discipline

|                            |                                           |              |          |                         |          |                        |           |
|----------------------------|-------------------------------------------|--------------|----------|-------------------------|----------|------------------------|-----------|
| 2.1 Name of the discipline | <b>Elaboration of the diploma project</b> |              |          |                         |          |                        |           |
| 2.2 Course coordinator     | -                                         |              |          |                         |          |                        |           |
| 2.3 Seminar coordinator    | -                                         |              |          |                         |          |                        |           |
| 2.4. Year of study         | <b>IV</b>                                 | 2.5 Semester | <b>8</b> | 2.6. Type of evaluation | <b>C</b> | 2.7 Type of discipline | Mandatory |

## 3. Total estimated time (hours/semester of didactic activities)

|                                                                                  |    |                  |    |       |       |
|----------------------------------------------------------------------------------|----|------------------|----|-------|-------|
| 3.1 Hours per week                                                               | 4  | Of which: 3.2 LP | 2  | 3.3 P | 2     |
| 3.4 Total hours in the curriculum                                                | 56 | Of which: 3.5 LP | 28 | 3.6 P | 28    |
| Time allotment:                                                                  |    |                  |    |       | hours |
| Learning using manual, course support, bibliography, course notes                |    |                  |    |       | 18    |
| Other documentation (in libraries, on electronic platforms, field documentation) |    |                  |    |       | 10    |
| Preparation for seminars/labs, homework, papers, portfolios and essays           |    |                  |    |       | -     |
| Tutorship                                                                        |    |                  |    |       | 10    |
| Evaluations                                                                      |    |                  |    |       | 4     |
| Other activities: .....                                                          |    |                  |    |       | -     |
| 3.7 Total individual study hours                                                 | 42 |                  |    |       |       |
| 3.8 Total hours per semester                                                     | 98 |                  |    |       |       |
| 3.9 Number of ECTS credits                                                       | 4  |                  |    |       |       |

## 4. Prerequisites (if necessary)

|                   |                |
|-------------------|----------------|
| 4.1. curriculum   | Not applicable |
| 4.2. competencies | Not applicable |

## 5. Conditions (if necessary)

|                                      |                                                |
|--------------------------------------|------------------------------------------------|
| 5.1. for the course                  | Not applicable                                 |
| 5.2. for the seminar /lab activities | Room equipped with a computer and a projector. |

## 6. Specific competencies acquired

|                                  |                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Professional competencies</b> | <ul style="list-style-type: none"> <li>• Mastering and applying the methodology for preparing a dissertation</li> <li>• Correct and documented use of information for the development of the dissertation</li> <li>• Collecting, analyzing, and interpreting data and information related to the research topic chosen by the student</li> </ul> |
| <b>Transversal competencies</b>  | <ul style="list-style-type: none"> <li>• Applying the principles, norms, and values of professional ethics</li> <li>• An integrated approach to interdisciplinary concepts</li> <li>• Making connections with other studied disciplines</li> </ul>                                                                                               |

## 7. Objectives of the discipline (outcome of the acquired competencies)

|                                          |                                                                                                                                                                                                                                           |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.1 General objective of the discipline  | ➤ Guiding students in the preparation of their dissertation in accordance with the methodology of scientific research.                                                                                                                    |
| 7.2 Specific objective of the discipline | ➤ Developing students' ability (capacity) to perform independent research and documentation work<br>➤ Developing students' ability (capacity) to conduct analyses, integrate information, and draw conclusions with an original character |

## 8. Content

| 8.1 LP+P                                                                                                                       | Teaching methods            | Remarks |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---------|
| 1. Choosing the research topic that will constitute the subject of the dissertation                                            | Presentation<br>Discussions | 4 hours |
| 2. Identifying the general bibliography to ensure an overview of the research issue – preliminary documentation                | Presentation<br>Discussions | 4 hours |
| 3. Preparing the research plan                                                                                                 | Presentation<br>Discussions | 4 hours |
| 4. Defining the structure of the dissertation and the specific bibliography as a result of studying the specialized literature | Presentation<br>Discussions | 4 hours |
| 5. Reviewing the specialized literature recommended by the scientific supervisor and identified by the student                 | Presentation<br>Discussions | 4 hours |
| 6. Developing the research methodology to achieve the proposed objectives                                                      | Presentation<br>Discussions | 4 hours |
| 7. Documentation on the practical part of the dissertation – data collection and analysis                                      | Presentation<br>Discussions | 4 hours |
| 8. Data collection and analysis, interpretation of data                                                                        | Presentation<br>Discussions | 8 hours |
| 9. Drafting the dissertation – first version. Consultation with the scientific supervisor                                      | Presentation<br>Discussions | 8 hours |
| 10. Considering the scientific supervisor's observations and finalizing the dissertation drafting                              | Presentation<br>Discussions | 4 hours |
| 11. Preparing presentations for the public defense of the dissertation.                                                        | Presentation<br>Discussions | 4 hours |
| 12. Case studies regarding the dissertations of                                                                                | Presentation                | 4 hours |

|                                                                                                                                                     |             |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|
| students.                                                                                                                                           | Discussions |  |
| Bibliography:                                                                                                                                       |             |  |
| 1. The bibliography recommended by the scientific supervisor or the one considered relevant by the student, depending on the chosen research topic. |             |  |

**9. Corroborating the content of the discipline with the expectations of the epistemic community, professional associations and representative employers within the field of the program**

In accordance with the specific requirements for preparation outlined in the curriculum.

**10. Evaluation**

| Type of activity                                           | 10.1 Evaluation criteria                                                                                                              | 10.2 Evaluation methods                                                                                                                                | 10.3 Share in the grade (%) |
|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| 10.4 LP/P                                                  | Interest in the concepts presented and active involvement in the specific stages of dissertation preparation.                         | Oral – involvement in thematic discussions, in establishing the content outline, and managing the volume of bibliographic, field, and laboratory work. | 50%                         |
|                                                            | The process of developing the structure of the dissertation and the academic requirements for preparing and defending a dissertation. | Written or oral – addressing scientific topics and aspects of interest from the dissertation.                                                          | 30%                         |
|                                                            | The process of finalizing and defending the dissertation.                                                                             | Synthesis of the dissertation work and its presentation                                                                                                | 20%                         |
| 10.6 Minimum performance standards                         |                                                                                                                                       |                                                                                                                                                        |                             |
| Fulfillment of at least 75% of the evaluation requirements |                                                                                                                                       |                                                                                                                                                        |                             |

Date                                      Signature of course coordinator                      Signature of seminar coordinator

Date of approval                                                              Signature of the head of department

December 4, 2024