

## Engineering and Environment Protection in Agriculture

### 1. Admission Requirements:

#### • Prerequisites:

- Successful completion of high school studies and obtaining a baccalaureate degree or equivalent.
- Non-EU Citizens - Contingent upon the presentation of the Graduation Certificate from the preparatory year (excluding those who have completed their previous studies in the Romanian language) and obtaining the Letter of Acceptance issued by the Ministry of Education.
- EU Citizens + Swiss Confederation - Contingent upon the presentation of the Graduation Certificate from the preparatory year (excluding those who have completed their previous studies in the Romanian language) and the recognition of their studies by the National Centre for Recognition and Equivalence of Diplomas (CNRED).

#### • Entrance Exams:

- The admission average of registered candidates is made up of: average of the baccalaureate exam - weight 100%.
- Admission to undergraduate studies is strictly in descending order of the general admission averages obtained by the candidates respecting the capacity of tuition for each study program

### 2. Degree Levels:

- Bachelor's Degree: 4-year program.

### 3. Curriculum:

#### • Core Courses:

**Mandatory courses** that all students in the program must take:

- Technologies of Environmental Engineering Operations
- Land Survey
- Geographical Information System (GIS)
- Monitoring of the Environment
- Water Treatment
- Hydrology
- Environmental Impact Assessment
- Landscape Design

#### • Electives:

- Biofuels
- Renewable Energy Sources

- Aquatic Ecosystems

- **Major/Concentration:**

- The Engineering and Environment Protection in Agriculture program is designed to cultivate expertise at the intersection of agricultural practices and environmental sustainability. This program equips students with a holistic understanding of the challenges and opportunities in modern agriculture, emphasizing environmentally responsible engineering solutions. Upon completion, graduates are well-prepared to navigate the complex challenges of sustainable agriculture, applying engineering principles to protect and preserve the environment while fostering innovation in the agricultural sector.

- **General Education Requirements:**

- Successful completion of the mandatory courses, seminars and labs, completion of the three internships and the bachelor thesis.

#### 4. **Credits:**

- Each semester carries a weight of 30 ECTS, with a total of 240 ECTS required for graduation. An additional 10 ECTS is allocated to the diploma exam.

#### 5. **Internships and Practical Experience:**

As per the curriculum, students are offered a total of 300 hours of practical experience spanning the first through the third year of study. This hands-on learning is divided into field practice and specialty practice, providing students with a diverse range of tasks aligned with the specifics of their future profession. The Faculty of Environmental Engineering and Food Science has established collaborative agreements with numerous entities involved in environmental activities, such as wastewater treatment plants, environmental protection agencies, and waste treatment stations. These partnerships are instrumental in providing students with practical experiences that bridge the gap between theoretical knowledge and real-world applications.

Furthermore, through participation in European projects, agreements have been forged to involve students, particularly those in their third and fourth years of study, in entrepreneurial activities. This engagement aims to connect the specific focus of their field of study with the demands of the labor market.

#### 6. **Research Requirements:**

- The Bachelor thesis is a comprehensive engineering project structured into essential components, including an analysis of the current state of the theme, theoretical and applied contributions to addressing the theme, and concluding with recommendations. This culmination of the undergraduate program is a pivotal academic endeavor.
- To adequately prepare students for the successful completion of their Bachelor thesis, a dedicated Practice for Bachelor Thesis Preparation is

integrated into the curriculum. This practice allocates a total of 120 hours, equivalent to 10 ECTS, providing students with the necessary guidance, resources, and support to refine their research skills, synthesize theoretical knowledge, and apply it to real-life scenarios.

#### **7. Academic Advising:**

- During each academic year, students are paired with a dedicated tutor from the teaching staff. This tutor serves as a guiding resource, assisting students in course selection, mapping out their academic trajectory, and addressing both professional and administrative concerns. This academic advisor provides continuous support from the first year of study through the fourth year. Acting as the intermediary between students and academic representatives, including teachers and management, communication is facilitated through various channels such as phone, email, and social media.

#### **8. Extracurricular Activities:**

- Students enrolled in the Engineering and Environment Protection in Agriculture program actively participate in a variety of extracurricular activities directly aligned with their field of study. These include engaging workshops, symposia (such as the Student Research Symposium and conferences addressing specific topics like the Sustainable Development of Rural Areas), initiatives focused on preventing school dropout, and various projects. Additionally, they actively contribute to Special Event Days, celebrating occasions such as International Environment Day, GIS Day, Forest Day, Water Day, Biodiversity Day, among others.
- Complementing their involvement in academic and environmental initiatives, students maintain their own university-level organization—the Students League. This platform serves as a hub for student collaboration, fostering a sense of community and providing an avenue for collective engagement beyond the confines of their academic pursuits.

#### **9. Examinations:**

- The specific requirements for exams in a given discipline are explicitly outlined in the discipline syllabi. Professors communicate these requirements to students during the initial course session. Students must meet various criteria before taking the exam, which include active participation in all laboratory sessions, successful defense of the lab colloquium, and the satisfactory completion and presentation of the semester project with a minimum acceptable grade. The specific criteria vary based on the nature and intricacies of each discipline.

#### **10. Thesis Defense:**

- The bachelor thesis undergoes a plagiarism check using specialized software before the decision is made to present it before a committee.

- The bachelor thesis is expected to fulfill all required content chapters with a focus on scientific rigor. It should demonstrate accurate calculations, draw conclusions grounded in evidence, and present information in a clear manner. The presentation is an opportunity to showcase the graduate's professional knowledge and cross-disciplinary skills.

#### **11. Graduation Requirements:**

- Students are required to accumulate all 240 ECTS, demonstrating successful completion of exams for all curriculum disciplines. The final examination is twofold, encompassing the assessment of fundamental and specialty knowledge alongside the defense of the bachelor thesis.

#### **12. Degree Awarding:**

- Bachelor's Degree (Engineer) in Environment Protection in Agriculture.