## Control and Expertise in Food Industry

1. **Admission Requirements:**
   - **Prerequisites**:
     - Graduates with a bachelor's degree from a bachelor's degree course or graduates with an equivalent degree from a long-term university course may apply for admission to the master's degree course.
     - 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 process includes a structured interview on a predetermined topic. The professional interview is designed to assess students' analytical and synthetic skills in understanding food engineering concepts. The fundamental knowledge in Food Biochemistry, Food Microbiology, and Food Technologies constitutes the essential criteria for admission tests.
2. **Degree Levels:**
   - Master's Degree: 2-year program following a bachelor's degree.
3. **Curriculum:**
   - **Core Courses:**

     **Mandatory courses** that all students in the program must take:
     - Food Security and Food Safety
     - Authentication and Expertise of Food Products
     - Sanitarian-Veterinary Food Control
     - Quality Control on the Technological Flow in the Food Industry
   - **Electives:**
     - Food Commodities
     - Functional Foods and Organic Foods
     - Statistical Analysis and Design of Experiments in the Food Industry
   - **Major/Concentration:**

The master's degree program is designed to equip specialists for diverse roles within the food industry. Graduates are prepared to contribute to food quality and safety control bodies, navigating related legislation and employing modern analysis and control techniques, with an overarching commitment to quality management and the ultimate goal of ensuring the health and well-being of consumers.
The program provides comprehensive academic and practical training, focusing on modern control analyses across all sectors of the food industry. It emphasizes the implementation of the HACCP system and various quality systems aligned with European standards. Additionally, students gain expertise in employing contemporary modeling and simulation methods for technological processes within the food industry. This multifaceted approach ensures graduates are well-prepared for the dynamic and demanding landscape of the modern food industry.

- **General Education Requirements:**
  - Successful completion of the mandatory courses, seminars and labs, completion of the internships and the dissertation thesis.

4. **Credits:**
   - Each semester carries a weight of 30 ECTS, with a total of 120 ECTS required for graduation. An additional allocation of 10 ECTS is designated for the dissertation exam.
5. **Internships and Practical Experience:**
   - The course 'Scientific Research' is integrated into the curriculum from the first semester, comprising a total of 42 hours. Through practical activities within this discipline, students gain valuable experience in a specific aspect of food quality and expertise control, aligning with the topic of their dissertation work.
   - In the second year of study, the subjects 'Practice' and 'Practice for Elaboration of the Dissertation Work' further contribute to the expansion of students' practical knowledge, totaling 364 hours.
   - To enrich practical experiences, collaborative agreements exist between the Faculty of Environmental Engineering and Food Science and numerous food engineering enterprises across diverse sectors such as bakery, dairy product manufacturing, meat processing, and beer technology. These partnerships aim to provide students with hands-on experience in real-world settings.
   - Additionally, well-established agreements with organizations involved in food control and research institutes specializing in food quality further enhance students' practical exposure and contribute to a comprehensive educational experience.

6. **Research Requirements:**

The Master's thesis is a comprehensive research endeavor applied in the field of food control and expertise, structured into essential components:

**Motivation of the Choice of the Research Theme:**

- Clearly articulating the rationale behind selecting the research theme.

**Formulation of Reference Objectives:**

- Defining objectives for scientific and practical research across knowledge, application, and integration levels.

**Methods, Techniques, Procedures, and Research Tools:**

- Detailing the methodologies, techniques, procedures, and tools utilized, aligning with the dissertation thesis topic.

**Hypothesis Testing and Validation of Results:**

- Rigorously testing hypotheses and validating research findings.

**Data Processing and Analysis:**

- Methodically processing and analyzing data derived from the research.

**Conclusions of the Dissertation Thesis:**

- Drawing conclusions based on the research outcomes.
- The specific elements of content are tailored to the chosen research topic, a collaborative effort between the student and their supervisor. This ensures a customized and in-depth exploration within the framework of the outlined requirements.

7. **Academic Advising:**

- Master's students in each academic year are guided by an academic advisor, typically a faculty member. This individual plays a vital role in keeping students well-informed about various aspects, including the curriculum, university services, material facilities (such as laboratories and equipment, library resources, etc.), evaluation procedures, fee structures, application modalities for scholarships and other funding sources, academic mobilities like Erasmus programs, and details about legally constituted student associations.
- Functioning as a crucial interface between students and academic representatives (such as teachers and management), the academic advisor ensures effective communication through diverse channels, including phone, email, and social media. This comprehensive support system aims to empower students with the necessary information and resources to navigate their academic journey seamlessly.
- The dissertation thesis is also supervised by a scientific supervisor.

8. **Extracurricular Activities:**

- Students enrolled in the Control and Expertise in Food Industry program actively participate in a variety of extracurricular activities closely aligned

with their field of study. These include engaging in workshops focused on food production, attending symposia like the Student Research Symposium and conferences addressing distinct topics such as Food waste. Additionally, students contribute to and participate in Special Event Days, including International Food Day and Health World Day. This multifaceted involvement enriches their educational experience and provides valuable insights into the practical applications of their studies.

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:**
    - Prior to defending the dissertation before a committee, a crucial initial step involves subjecting the work to a thorough plagiarism check using specialized software.
    - • The dissertation must encompass all required content chapters, ensuring scientific rigor, accurate calculations, and conclusions grounded in evidential data. The presentation should be clear, demonstrating the graduate's professional knowledge and transversal abilities.
11. **Graduation Requirements:**
    - To fulfill program requirements, students must earn 120 ECTS by passing exams in all outlined disciplines. The culmination of their academic journey involves defending a dissertation during the final examination.
12. **Degree Awarding:**
    - Master's Degree in Food Engineering (Control and Expertise in Food Industry).