

FOOD SCIENCE & TECHNOLOGY

General information

Semester: **1 and 2**

Language: **English**

Description



Food Science & Technology was developed for engineering students seeking the specialist skills and knowledge required to excel within the food industry.

The subject has been designed to provide you with knowledge of the most commonly used technological processes and latest advances in food production. Throughout this course, we will explore key areas of food-processing and learn the fundamentals of food-biotechnology, focusing on the use of microbes and enzymes. The subject will demonstrate the most predominately used techniques, processes and equipments and provide you with the tools to practically apply this knowledge in designing and implementing new processes in developing food products.

Methodology



- Online classes, reverse classes, group work

Contents



- **Part 1:** Introduction. Food technology. Food processing
- **Part 2:** Ambient temperature processing. Raw material preparation. Extraction and separation of food. Mixing, forming and coating. Minimal processing methods
- **Part 3:** Processing by application of heat. Cooking. Evaporation & distillation. Sterilisation and pasteurization. Food drying and smoking
- **Part 4:** Processing by removal of heat. Chilling, refrigeration and freezing. Freeze drying
- **Part 5:** Food biotechnology. Fermentation technology. Microbial fermentations. Enzyme technology
- **Part 6:** Food and drinks processing, an overview. Brewing, baking, winemaking, cheesemaking, olive oil production, chocolate processing, etc.