### **General Information**

- The main purpose of the graduate program of the Department of Food Engineering is to train food engineers who are qualified in a specific field and have R&D culture, which are required by the food industry and public institutions.
- The Department of Food Engineering started to MSc program in 2008 and PhD program in 2014.
- In the Master and Doctorate programs, it provides education with a strong laboratory infrastructure and academic group which is 5 professors, 5 associate professors and 3 doctor lecturers in different specialties.

# **Background Requirements**

- To graduate from Food Engineering undergraduate program
- To graduate from Chemical Engineering, Food Technology, Nutrition and Dietetics, Dairy Technology, Biology and Chemistry undergraduate programs (providing that they complete the scientific preparation program).

# **English Proficiency Requirements**

	MSc	PhD
YDS/YÖKDİL	50	55

### Academic Staff

- Prof. Dr. Ahmet AYAR
- ♦ Prof. Dr. Arzu Çağrı MEHMETOĞLU
- ◊ Prof. Dr. Serap COŞANSU AKDEMİR
- ♦ Prof. Dr. Suzan ÖZTÜRK YILMAZ
- Prof. Dr. Zehra AYHAN
- ♦ Assoc. Prof. Dr. Ayşe AVCI
- ♦ Assoc. Prof. Dr. Dilek ANGIN
- ♦ Assoc. Prof. Dr. Oktay YEMİŞ
- ♦ Assoc. Prof. Dr. Omca DEMİRKOL
- Assoc. Prof. Dr. Serpil ÖZTÜRK MUTİ
- ♦ Assist. Prof. Dr. Gökçe POLAT YEMİŞ
- Assist, Prof. Dr. Güliz HASKARACA
- ♦ Assist. Prof. Dr. Mustafa ÖZTÜRK

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#### **Institute of Natural Sciences**

**Food Engineering** 

**Graduate Studies** 













www.food.sakarya.edu.tr

### Research Areas

- ◆ Food Chemistry
- Food Microbiology
- Nutrition
- Food Packaging
- Active Carbon Production and Applications
- Milk and Dairy Processing Technology
- Meat and Meat Products Technology
- Fruit and Vegetable Processing Technology
- Cereal Science and Technology
- Food Biotechnology
- Food Processing Wastes and byproducts
- Non-thermal technologies

### **Courses**

#### **MSc**

- Advanced Food Analysis
- Industrial Microbiology
- Advanced Analytical Chemistry
- Starch Chemistry
- Starter Culture Technology
- Natural Food Antioxidants
- Food Pathogens
- New Packaging Technologies
- Advanced Protein Chemistry

#### **PhD**

- Advanced Food Chemistry
- Academic Writing Techniques
- Principles and Applications of MAP of Foods
- Food Safety and Toxicology
- Microbiological Quality Control Management
- Lactic Acid Bacteria and Uses
- Evaluation of Dairy Products Wastes
- Scientific Research Techniques
- Methods of Antioxidant Activity Assay

## Research Laboratories



Milk and Dairy Technology Laboratory



Activated Carbon Production Laboratory



**Microbiology Laboratory** 



Food Microbiology Research Laboratory



Food Biotechnology Laboratory



Food Packaging and Preservation Laboratory



Product Development Laboratory



**SAGADEM** 

# Scopes of Research Laboratories

- Milk and Dairy Technology Laboratory: Production of dairy products and quality control analysis
- Activated Carbon Production
   Laboratory: Production of activated carbon from food wastes
- Microbiology Laboratory:
   Microbiological studies, antimicrobial activity tests, various microorganisms counts
- ◆ Food Microbiology Research Laboratory: Investigation of the effects of antimicrobial substances on pathogen inactivation and thermal resistance, gene properties of pathogens on biofilm production, studies on antimicrobial edible films and coatings
- Food Biotechnology Laboratory:
   Studies in Biotechnology,
   nanobiotechnology, industrial microbiology
- Product Development Laboratory:
   Bakery products, fermented foods, chocolate, etc. production of special foods and determination of their sensory qualities
- ◆ Food Packaging and Preservation Laboratory: MAP/vacuum, active packaging studies, development and characterization of new generation food packaging materials, determination of the effect of new packaging materials and technologies on food shelf life
- SAGADEM: Conversion of food industry wastes and agricultural by-products into value-added products