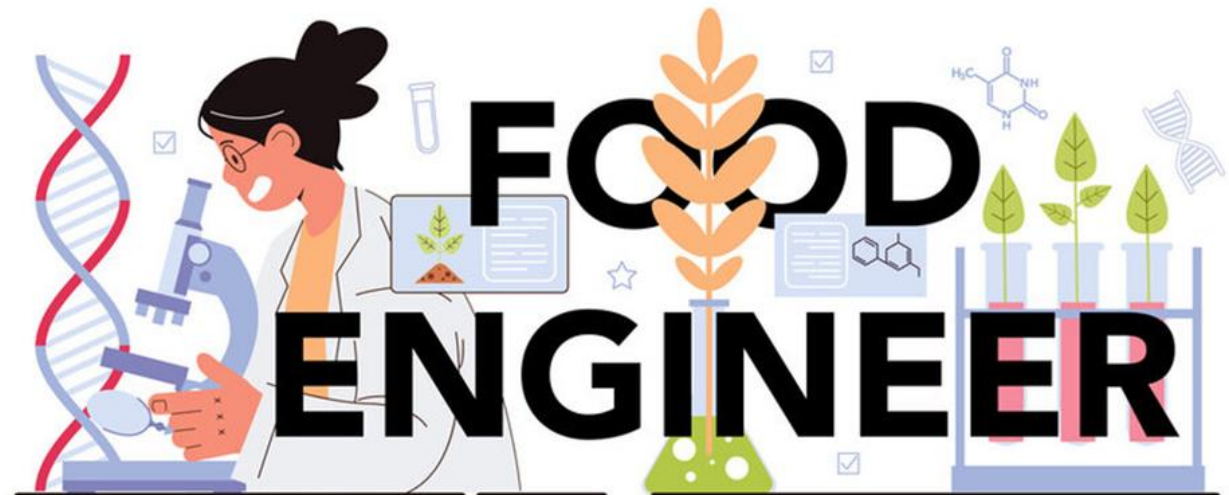


Albert Kázmér Faculty of Agricultural and Food Sciences of Széchenyi István University in Mosonmagyaróvár

Food Engineering BSc



Details of the program

- **Academic discipline:** Agricultural Science
 - **Qualification:** Food Engineer
 - **Duration:** 7 semesters
 - **Total credits:** 210
 - **Specialization:** no specialization
- At the end of the studies, the student receives a **bachelor's degree** according to the field of study, **the diploma gives a higher education.**

The **total number** of credits needed to complete the programme is **210 credits**. The courses of the programme are divided into four categories: **compulsory courses** (max. 155 credits), **optional courses** (min. 10 credits), placement **outside of the institution** (30 credits – professional practices), **thesis** (15 credits). 1 credit equals one ECTS credit, and 1 credit is defined as 25 student working hours.

Short description

The BSc in food engineering is aimed at training professionals who are **able to operate, supervise and develop food processing technologies.** The studies include the physical, chemical and biological fundamentals of engineering with special emphasis on food quality and safety related issues. Besides becoming acquainted with operations and technological processes the students also learn economic, management and analytical subjects. The main goal of the program is to train experts who are able to fully provide services related to the **everyday tasks of operation from engineering, biological and chemical work** to management duties based on their comprehensive theoretical knowledge.

Careers

There are many job opportunities for Food Engineers in the labour market. The entire food industry sector is at the graduates' disposal, from laboratory positions (laboratory manager), through quality assurance areas (auditing) to various positions in production (product developer, production manager). But outside the food sector, the graduate can also work in the pharmaceutical sector, where they can be involved in the development of medicines and their large-scale testing and quality assurance. But it is also possible to work in other areas, such as **animal feed** (animal feed manufacturer), control authorities (NÉBIH), or to set a private food business.

Course program

Required courses – 200 Credit

Credit / Semester	1 31 / 0	2 30 / 0	3 25 / 0	4 32 / 0	5 28 / 0	6 24 / 0	7 30 / 0								
1	Agricultural basic studies MENB_AVTA010 ☐	Food unit operations MENB_BÉTA032 ☐	Food technology 1. (Mill, bakery and confectionery technologies) MENB_ÉTTA010 ☐	Agricultural Economics I. MENB_AVTA023 ☐	Food technology 3. (Winemaking, Brewing and Spirit technologies) MENB_ÉTTA057 ☐	Food quality assurance MENB_ÉTTA030 ☐	Professional practice MENB_ÉTTA033 ☐								
2			Practice III. MENB_ÉTTA036 ☐	Food analytics 1 MENB_ÉTTA002 ☐	Thesis Consultation II. (Bachelor Programme) MENB_ÉTTA098 ☐	Food technology 4. (Dairy industry) MENB_ÉTTA058 ☐									
3								Mathematics 3. - agrosience GKNB_MSTA105 ☐	Food technology 5. (Meat industry technology) MENB_ÉTTA059 ☐						
4															
5	Mathematics 2. - agrosience GKNB_MSTA104 ☐	Food chemistry MENB_ÉTTA008 ☐								Food technology 2. (Preservation technologies) MENB_ÉTTA011 ☐	Quality assurance basics MENB_ÉTTA020 ☐	Food testing methodes MENB_ÉTTA029 ☐			
6			Physics MENB_BÉTA033 ☐	Managing Enterprises MENB_AVTA027 ☐	Agromarketing I. MENB_AVTA045 ☐	Support processes in food production MENB_ÉTTA108 ☐									
7								Basic Principles of Economics MENB_AVTA008 ☐	Food analytics 2 MENB_ÉTTA003 ☐				Thesis Consultation III. (Bachelor Programme) MENB_ÉTTA099 ☐		
8														Informatics MENB_BÉTA034 ☐	Project management basics MENB_ÉTTA060 ☐
9	Organic Chemistry MENB_VKTA021 ☐	Biochemistry MENB_VKTA003 ☐								Measurement and automatization MENB_BÉTA030 ☐	Agricultural and Food Law DKNB_KATA019 ☐				
10			Basic machines in food industry MENB_BÉTA028 ☐	Methodology of Agricultural Extension MENB_AVTA020 ☐	Thesis Consultation I. (Bachelor Programme) MENB_ÉTTA097 ☐										
11						Food Microbiology and Hygiene 2. MENB_ÉTTA018 ☐		Statistics MENB_AVTA019 ☐	Food Microbiology and Hygiene 1 MENB_ÉTTA006 ☐						
12												General and Inorganic Chemistry MENB_VKTA033 ☐	Practice II. MENB_ÉTTA035 ☐	General Microbiology MENB_ÉTTA001 ☐	
13	Physical chemistry MENB_ÉTTA016 ☐	General Microbiology MENB_ÉTTA001 ☐													
14			Managing Enterprises MENB_AVTA027 ☐	Agromarketing I. MENB_AVTA045 ☐	Support processes in food production MENB_ÉTTA108 ☐										
15						Food analytics 2 MENB_ÉTTA003 ☐		Thesis Consultation III. (Bachelor Programme) MENB_ÉTTA099 ☐							
16									Basic Principles of Economics MENB_AVTA008 ☐	Food chemistry MENB_ÉTTA008 ☐	Food technology 2. (Preservation technologies) MENB_ÉTTA011 ☐	Quality assurance basics MENB_ÉTTA020 ☐	Food testing methodes MENB_ÉTTA029 ☐		
17	Informatics MENB_BÉTA034 ☐	Project management basics MENB_ÉTTA060 ☐												Characterization of food matrices MENB_ÉTTA007 ☐	Agricultural and Food Law DKNB_KATA019 ☐
18			Organic Chemistry MENB_VKTA021 ☐	Biochemistry MENB_VKTA003 ☐	Measurement and automatization MENB_BÉTA030 ☐										
19						Basic machines in food industry MENB_BÉTA028 ☐		Statistics MENB_AVTA019 ☐							
20									General and Inorganic Chemistry MENB_VKTA033 ☐	Practice II. MENB_ÉTTA035 ☐	General Microbiology MENB_ÉTTA001 ☐				
21	Physical chemistry MENB_ÉTTA016 ☐	General Microbiology MENB_ÉTTA001 ☐													
22			Managing Enterprises MENB_AVTA027 ☐	Agromarketing I. MENB_AVTA045 ☐	Support processes in food production MENB_ÉTTA108 ☐										
23						Food analytics 2 MENB_ÉTTA003 ☐		Thesis Consultation III. (Bachelor Programme) MENB_ÉTTA099 ☐							
24									Basic Principles of Economics MENB_AVTA008 ☐	Food chemistry MENB_ÉTTA008 ☐	Food technology 2. (Preservation technologies) MENB_ÉTTA011 ☐	Quality assurance basics MENB_ÉTTA020 ☐	Food testing methodes MENB_ÉTTA029 ☐		
25	Informatics MENB_BÉTA034 ☐	Project management basics MENB_ÉTTA060 ☐												Characterization of food matrices MENB_ÉTTA007 ☐	Agricultural and Food Law DKNB_KATA019 ☐
26			Organic Chemistry MENB_VKTA021 ☐	Biochemistry MENB_VKTA003 ☐	Measurement and automatization MENB_BÉTA030 ☐										
27						Basic machines in food industry MENB_BÉTA028 ☐		Statistics MENB_AVTA019 ☐							
28									General and Inorganic Chemistry MENB_VKTA033 ☐	Practice II. MENB_ÉTTA035 ☐	General Microbiology MENB_ÉTTA001 ☐				
29	Physical chemistry MENB_ÉTTA016 ☐	General Microbiology MENB_ÉTTA001 ☐													
30			Managing Enterprises MENB_AVTA027 ☐	Agromarketing I. MENB_AVTA045 ☐	Support processes in food production MENB_ÉTTA108 ☐										
31						Food analytics 2 MENB_ÉTTA003 ☐		Thesis Consultation III. (Bachelor Programme) MENB_ÉTTA099 ☐							
32									Basic Principles of Economics MENB_AVTA008 ☐	Food chemistry MENB_ÉTTA008 ☐	Food technology 2. (Preservation technologies) MENB_ÉTTA011 ☐	Quality assurance basics MENB_ÉTTA020 ☐	Food testing methodes MENB_ÉTTA029 ☐		
Credit	1	2					3							4	5

Total number of credits of compulsory subjects 200 / 0

Compulsory subjects

Subject groups

Subject group for supporting academic progress

Application for the course is determined centrally.

Serial number	Subject name	Subject code	Completed
1	Proseminar	AKNB_TTTA153	☐
2	Effective learning	AKNB_TTTA343	☐
3	Preparation for the final exam	MENB_ÉTTA400	☐
4	Skill training I.	SZENB_AWKA001	☐

Physical education

Physical education

Serial number	Subject name	Subject code	Completed
1	Physical Education / Fitness	TKNB_TSKA003	☐
2	Physical Education / Power	TKNB_TSKA002	☐
3	Physical Education / Sport Skills	TKNB_TSKA004	☐
4	Physical Education / Swimming	TKNB_TSKA001	☐

Student support

The number of subjects to be completed by the end of studies: 2

Mandatory only for students who started in the academic year 2023/24/1 or after! Number of subjects to be completed: 2

Serial number	Subject name	Subject code	Completed
1	Student support I.	MENB_BÉTA118	☐
2	Student support II.	MENB_BÉTA119	☐
The number of subjects to be completed by the end of studies: 2 / 0			

Hungarian Language

Hungarian Language

Serial number	Subject name	Subject code	Completed
1	Hungarian Language and Culture 1.	KGNB_NOKA036	☐
2	Hungarian Language and Culture 2.	KGNB_NOKA037	☐

Credit points should be passed in this group till the end of the study program: 10

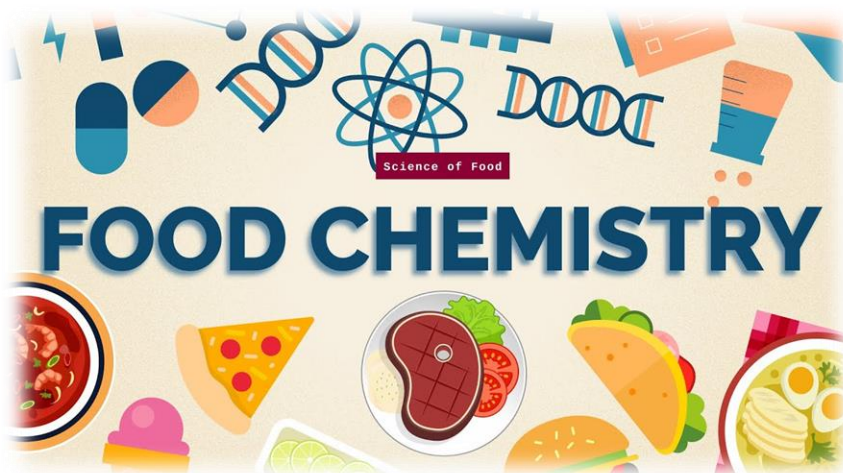
Free optional subjects

Credit to be fulfilled: 10

Serial number	Subject name	Subject code	Completed
1	Advance food unit operations	MENB_BÉTA055	☐
2	Agricultural subsidies and taxes	MENB_AVTA065	☐
3	Alternative crop production	MENB_NTTA052	☐
4	Animal Hygiene	MENB_ÁTTA039	☐
5	Basic banking knowledge	MENB_AVTA066	☐
6	From bio farming to gene technology	MENB_NTTA046	☐
7	Growing of ornamental plants	MENB_NTTA053	☐
8	Horse Husbandry and Breeding	MENB_ÁTTA028	☐
9	Insect as raw material	MENB_ÁTTA063	☐
10	Introduction to Chemistry	MENB_ÉTTA004	☐
11	Introduction to the Innovation and Research Communication I.	KGNB_VKTA018	☐
12	Introduction to the Innovation and Research Communication II.	KGNB_VKTA019	☐
13	Junior Leadership	SZENB_MCKA001	☐
14	Pet Breeding	MENB_ÁTTA037	☐
15	Precision crop production	MENB_NTTA051	☐
16	Project-based student work and involvement 1.	SZENB_AWKA004	☐
17	Project-based student work and involvement 2.	SZENB_AWKA005	☐
18	Rural tourism	MENB_AVTA061	☐
19	Services Marketing	MENB_AVTA062	☐
20	Skill training II.	SZENB_AWKA002	☐
21	Skill training III.	SZENB_AWKA003	☐
22	The Origin, Habitat and Conservation of our Arable Weeds	MENB_VKTA035	☐

Total number of credits of compulsory subjects 10 / 0

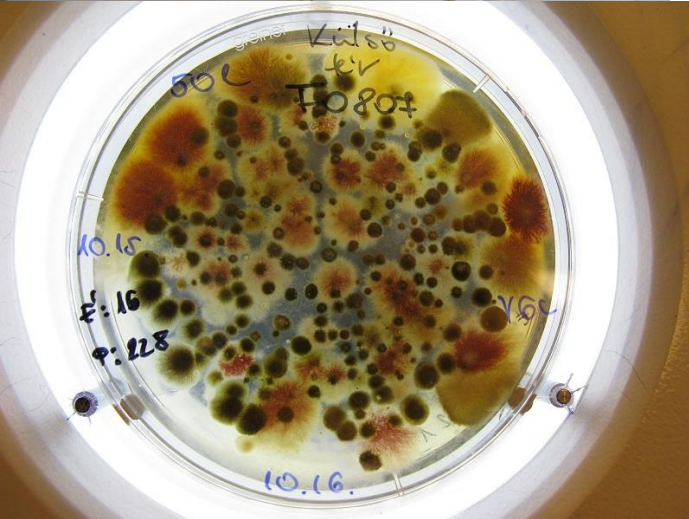
AREAS OF STUDY



PROFESSIONAL
KNOWLEDGE



Laboratories of the Department of Food Science - Microbiology



Laboratories of the Department of Food Science – Food analytics



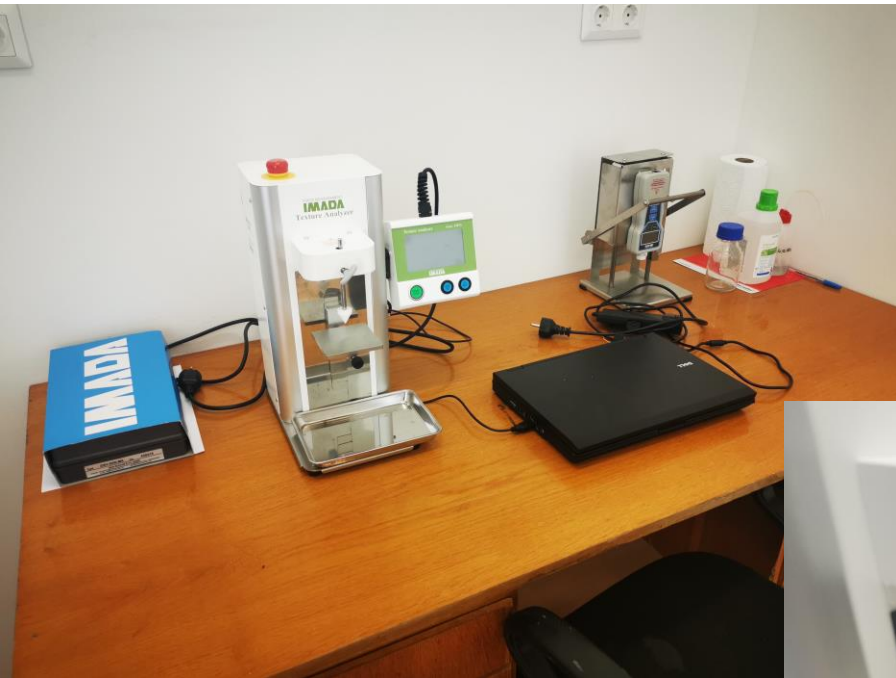
Laboratories of the Department of Food Science – Food Technology - Dairy



Laboratories of the Department of Food Science – Food Technology – Vegetables and Fruit



Laboratories of the Department of Food Science – Texture-Organoleptic Lab.



A photograph of a large, white, multi-story building with a red-tiled roof. The building has several windows and a tall, narrow tower on the right side. In the foreground, there are green bushes and a large bush of pink flowers. The sky is blue.

Thank you for your Attention!