New Bachelor

In “FOOD TECHNOLOGY”

Bachelor’s Program “Food Technology”

The first cycle Bachelor's program in **“Food Technology”,** is an interdisciplinary program that combines the principles of food technology and engineering to prepare specialists with advanced technical, technological and professional competencies in the field of processing and production of various food products in order to address the challenges in the production, processing and safety of food products. This program aims to provide students with expanded knowledge on the properties of raw materials, processing and production technologies of various food products, with technical, scientific and management skills for improving quality and increasing food safety, sustainability and efficiency of the agri-food sector, which includes engineering aspects of agri-food technologies and the application of international quality and safety management standards in this industry.

Program Objectives

As part of the academic offer of the Agricultural University of Tirana, this program is harmonized with the strategic objectives for:

- The development of the agri-food sector in our country,
- Supporting the progress of this important economic segment. In this context, it is intended to strengthen the technological infrastructure of the country,
- Promote the improvement of the food industry and support the process of integration in the European market.

Key Competencies

The name **“Food Technology”,** is highly suitable for the labor market in Albania, as it focuses on a key sector of the country's economic and industrial development. This study program combines engineering knowledge with its applications in the agro-food sector, preparing specialists who can contribute to food safety, agricultural product processing, and the development of innovative technologies in the food industry.

Career Opportunities

Students have the opportunity to be integrated into the

- Food industry, playing a key role in the production
- Food Safety and quality, innovation and sustainability of the food sector in our country. Their expertise allows them to contribute to various sectors including:
    - Food processing and production, safety and quality management, research and development, as well as government law enforcement agencies such as the National Agency of Food.

Curriculum Structure

The three-year program blends Natural sciences**;** Technology & Engineering**;** Economy, Social and Law; and Diploma, Elective courses, Internship.

- **1st Year**: Foundational courses in physics, mathematics, chemistry, biology. (50 ECTS).
- **2nd/ 3rd Year**: Food Engineering, Food technologies and Microbiology, Biotechnology (70 ECTS).
- **2nd/ 3rd Year**: Social economic courses, elective courses, internships, and a thesis project (60 ECTS).

Interdisciplinary Approach

- 25 % ECTS in Natural Science
- 40.6 % ECTS in Technical Science
- 17.8 % ECTS in Social-Economic Science
- 16.6 % ECTS in Diploma, Elective courses

Why Choose This Program?

Students who graduate from the Bachelor's study program in **"Food Technology"** profile have the opportunity to integrate into the food industry, playing a key role in the production, safety, innovation and sustainability of the food sector in our country and beyond. Their expertise allows them to contribute to various sectors including food processing and production, safety and quality management, research and development, as well as government law enforcement agencies. The continuous growth of this economic segment demonstrates the need for well-trained specialists who will contribute to the further development of this vital sector for the national economy.

CURRICULUM OF STUDIES

FIRST CYCLE STUDY PROGRAM (BACHELOR)

"FOOD TECHNOLOGY"

Year I, Semester I (1)

Nr	Modules	Credits ECTS	Lesson time			Category
			In Auditorium	Individual study	Total	
1	Mathematics	5	60	65	125	A
2	General & Inorganic Chemistry	5	60	65	125	A
3	Physics	3	30	45	75	A
4	Soil Science & Environmental Safety	3	30	45	75	D
5	Plant & Animal Raw Materials	8	90	110	200	A
6	Introduction to General & Molecular Biology	5	60	65	125	A
	Total	**29**	**330**	**395**	**725**	

Year I, Semester II (2)

Nr	Modules	Credits ECTS	Lesson Time			Category
			In Auditorium	Individual Study	Total	
1	Organic Chemistry	5	60	65	125	A
2	Genetics	3	30	45	75	A
3	Fundamentals of Heat and Mass Transfer in Food Processing	5	60	65	125	B
4	Analytical Chemistry	5	60	65	125	B
5	Food Law and Bioethics	4	45	55	100	C
6	General Microbiology	4	45	55	100	B
7	Bioinformatics and Biostatistics	5	60	65	125	D
	Total	**31**	**360**	**415**	**775**	

Year II, Semester I (3)

Nr	Modules	Credits ECTS	Lesson time			Category
			In Auditorium	Individual Study	Total	
1	Food Microbiology	5	60	65	125	B
2	Food Chemistry and Human Nutrition	8	90	110	200	B
2	Innovation and Entrepreneurship in the Food Sector	3	30	45	75	C
3	Meat Processing Technology	5	60	65	125	B
4	Basic Processes in the Food Industry	5	60	65	125	B
5	Food Biochemistry and Enzymology	5	60	65	125	B
	Total	**31**	**360**	**415**	**775**	

Year II, Semester II (4)

Nr	Modules	Credits ECTS	Lesson time			Category
			In Auditorium	Individual study	Total	
1	Enology, Alcoholic Beverage Technology	5	60	65	125	B
2	Dairy Processing Technology	5	60	65	125	B
3	Product Development and Food Marketing	5	60	65	125	C
4	Biochemistry and Biotechnology of Food and Fermentations	8	90	110	200	B
5	Elective Modules*	6	60	90	150	B
	Totali	**29**	**330**	**395**	**725**	

Year III, Semester I (5)

Nr	Modules	Credits ECTS	Lesson time			Category
			In Auditorium	Individual study	Total	
1	Cereal Processing Technology	6	60	90	150	B
2	Fundamentals of Bioengineering Processes	5	60	65	125	B
3	Fruit, Vegetable and Oil Processing Technology	8	90	110	200	B
4	Quality Management in the Food Industry	5	60	65	125	B
5	Elective Modules*	6	60	90	150	B
	Total	**30**	**330**	**420**	**750**	

Year III, Semester II (6)

Nr	Modules	Credits ECTS	Lesson time			Category
			In Auditorium	Individual study	Total	
1	Business Administration and Organization	4	30	45	75	C
2	Project Management	4	30	45	75	C
3	Sociology of Food and Consumers	4	30	45	75	D
3	Elective Modules*	6	60	90	150	C/D
4	Professional Practice	6		90	150	D
5	Formal Exam/Diploma Topic	6		180	300	E
	1. Cleaning & Sanitation Processes in IU	3	30	40	75	C
	2. Food Technology in the Beekeeping Sector	3	30	40	75	B
	3. Soft Drink Technology	3	30	40	75	B
	4. Confectionery Technology	3	30	40	75	B

	5. Food Packaging,	3	30	40	75	B
	6. Beer Technology	3	30	40	75	B
	7. Technical Safety in the Food Industry	3	30	40	75	B
	8. Products of Controlled Origin	3	30	40	75	B
	9. Food Additives	3	30	40	75	B
	10. General Knowledge in Nutritional Sciences	3	30	40	75	B
	11. General Knowledge in Food Analysis	3	30	40	75	C
	12. Rheology of Liquids	3	30	40	75	B
	13. Innovative Management	3	30	40	75	C
	14. Engineering Processes	3	30	40	75	B
	15. Measuring and Control Equipment in the Food Industry	3	30	40	75	B
	16. Career Administration	3	30	40	75	D
	17. Innovative Management	3	30	40	75	C
	18. Ecology	3	30	40	75	C
	19. Technical English	3	30	40	75	D
	Total	**30**	**150**	**420**	**750**	
	Total (1+2+3+4+5+6)	**180**	**1860**	**2460**	**4500**	