



*Josip Juraj Strossmayer
University of Osijek*

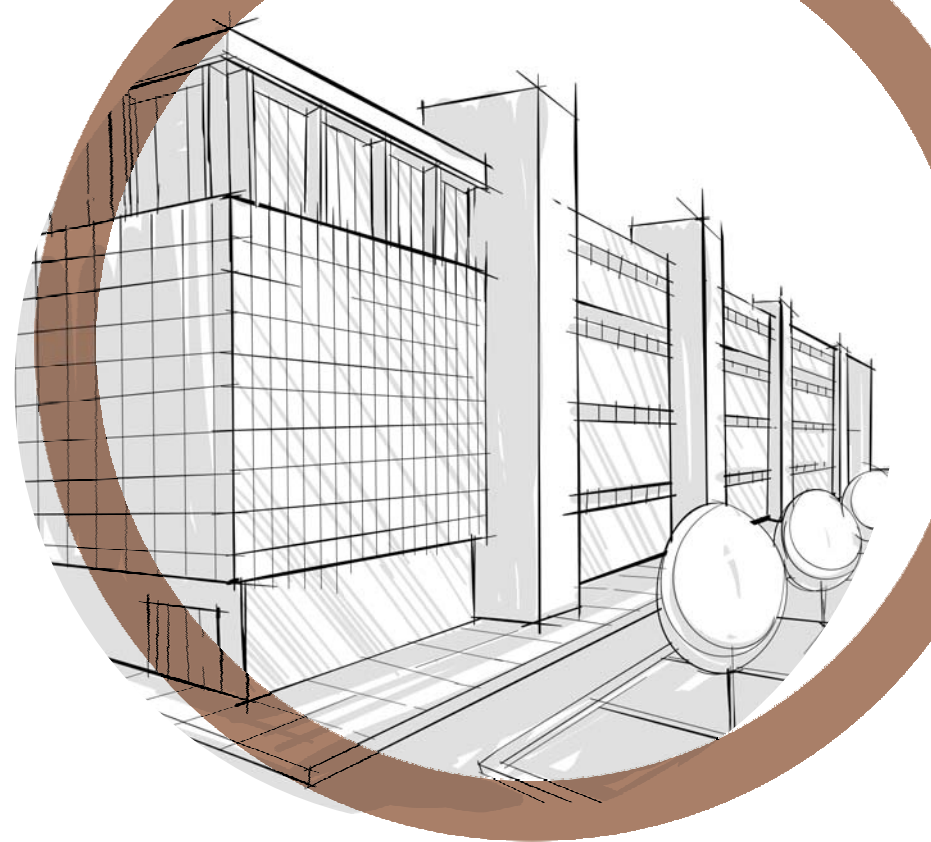
Faculty of Food Technology Osijek



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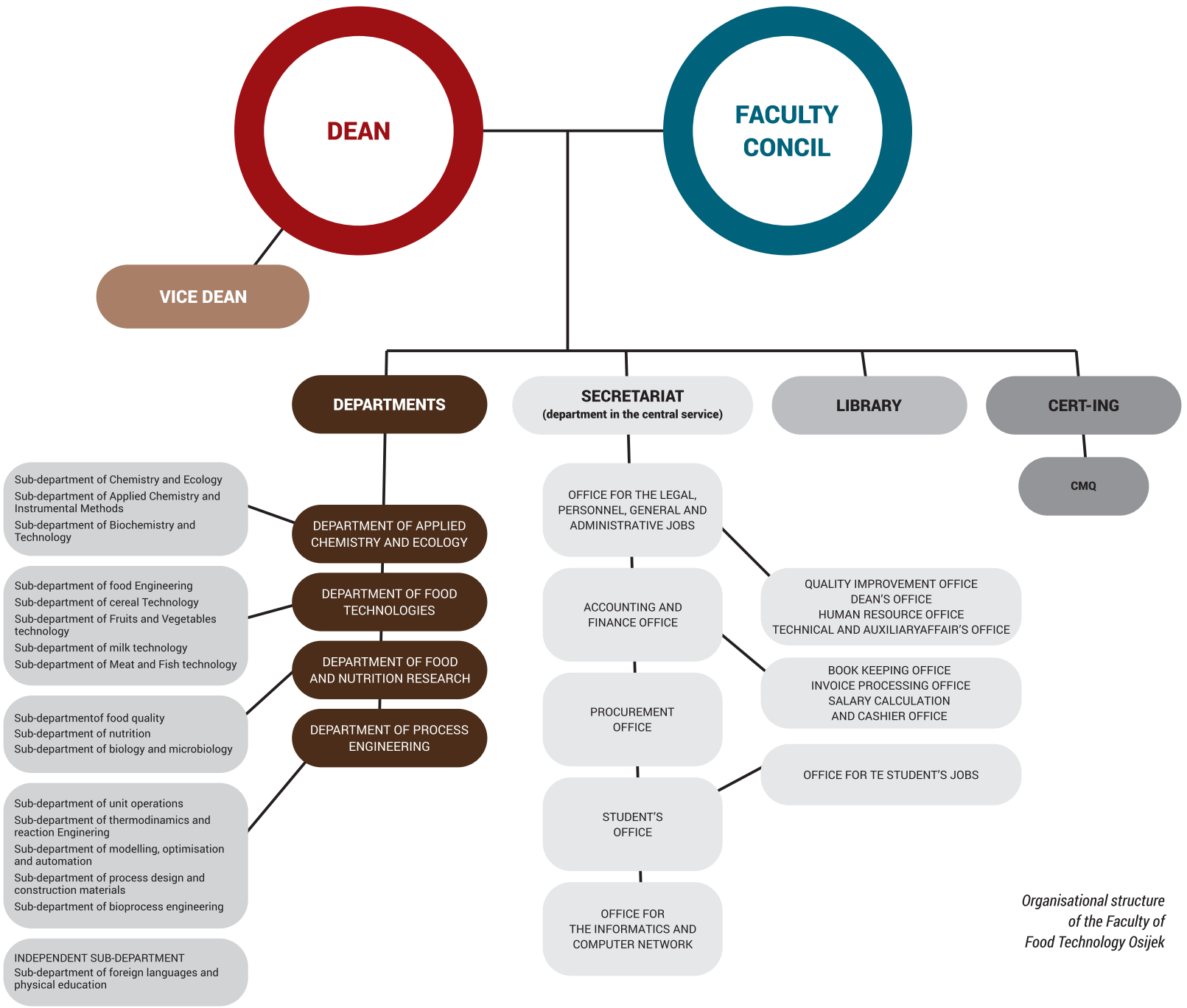
Mission

The mission of the Faculty of Food Technology at the Josip Juraj Strossmayer University of Osijek is to develop and spread nationally and internationally recognized excellence in education and research in the fields of biotechnical, technical and natural sciences. The Faculty also works on the transfer of knowledge and its applications for the benefit and prosperity of every sector of society. The Faculty provides student and teacher mobility, rational usage of human and material resources, supervision and constant quality enhancement, competitiveness, and international competitiveness with regard to teaching and scientific work. To achieve this mission the Faculty has a permanent development strategy based on the excellence of scientific, teaching and professional work.



Vision

The vision of the Faculty of Food Technology at the Josip Juraj Strossmayer University of Osijek is to be an elite scientific and educational institution in Croatia, focused on internationally recognized scientific, developmental and technical research in the areas of biotechnology, technical and natural sciences, adjusted to the European Higher Education Area and the European Research Area. The Faculty will continue to educate internationally acknowledged competent and high quality experts, and it will carry out internationally acknowledged scientific and technical research and provide support to economic development. The Faculty aims at being recognized by its excellence, becoming thus a desirable institution of higher education, a reliable business partner for domestic and international scientific and educational institutions and students. To achieve these goals, the Faculty will cooperate with national and international partners in the area of education and economy, providing permanent supervision and quality enhancement, and competitiveness of its curriculum, scientific and professional work.



*Organisational structure
of the Faculty of
Food Technology Osijek*





PTFOS yesterday, today, tomorrow

The academic course of Food Technology was founded in the academic year 1970/1971, as part of the Faculty of Agriculture and Food Technology in Osijek, for the purpose of training personnel for the food industry in the region. The Faculty of Food Technology Osijek (PTFOS) was founded in 1976 and it has been working independently ever since.

Today, the Faculty of Food Technology is a modern institution of higher education that conducts various scientific and professional activities, and provides eight different university course programmes. The course programmes are compatible with similar course programmes in Europe. The concept of lifelong learning is implemented through various programmes activities, which, along with the formal education programmes, constitute education implemented in accordance with the Bologna process. Some of the employees at the Faculty are members of the highest government bodies, as well as scientific and professional organisations and institutions. The employees of the Faculty of Food Technology have won many domestic and international awards. All the achievements and successes of the students and employees at the Faculty are the result of continuous work on improving the conditions of the programmes of study and advancing the quality of teaching, scientific work, and professional work at the Faculty.

All the activities of the Faculty are conducted at three locations in Osijek Tvrd̄a, the old city centre of Osijek, which is a protected cultural site and is subject to special regulations concerning the preservation and protection of cultural assets (Franje Kuhaća 18 and 20, and Trg Svetog Trojstva 3).

Over 2000 students completed one of the study programmes at the Faculty of Food Technology Osijek, which demonstrates a long-standing tradition in educating high quality personnel and a great contribution to science and the profession, and, along with the 106 employees employed at the moment and about 800 students at the Faculty, comprises one big happy family of the Osijek school of food technology, which contributed to the fact that our food industry is keeping up with the European food industry through their professional engagement.

The activities at the Faculty of Food Technology Osijek in the near future will be focused at solidifying its position as one of the leading teaching and scientific institutions in this part of Croatia and the wider region aimed at implementing internationally recognised scientific, developmental, and professional research from the area of biotechnical, technical, and natural sciences. The Faculty will continue to educate internationally recognised experts and be a reliable partner for the economy, domestic and international educational institutions, and for students. Special attention in the near future will be dedicated to monitoring the needs of the labour market and, accordingly, introducing new programmes of study, primarily interdisciplinary programmes, in cooperation with the other constituents of the University, as well as shorter education programmes as part of the concept of lifelong learning.

Jurislav Babić, PhD, professor



This university study programme organisation enables optimal higher education in the area of biotechnical sciences, in the field of food technology, and it is based on:

- many years of experience at the Faculty in implementing study programmes from the mentioned area,
- available personnel and space,
- enabling vertical mobility for students at all study levels in the national and international higher education systems, and
- the requirements of the labour market.

The courses in all the programmes of study implemented at the Faculty have been organised and are taught according to the content and schedule of the courses, through lectures, seminars, and practical classes, which are conducted as classroom and/or industrial (field) practical classes. Aside from standard lectures, the teachers also use other teaching methods aimed at encouraging students to actively participate in the teaching process, including encouragement of teamwork, as well as independent activities and creativity opportunities, which certainly depend on the content and the nature of the course, and the number of students attending the classes. The students work as a group or individually to complete various tasks and present their work to their colleagues. Practical classes are also implemented through industrial (field) practical classes, or through organised visits to industrial facilities with which the Faculty has been cooperating for many years. The goal of this form of teaching it to familiarise the students with devices, specific processes, and technological production processes of individual products, as well as the work methods, problems, and solutions in the industrial practice.

Study programmes

Starting with the academic year 2005/2006, the Faculty of Food Technology Osijek adapted the structure of formal higher education that was implemented to the principles of the Bologna process. The study programmes have been organised according to the "3 + 2" concept, i.e. three years of undergraduate studies, followed by two years of graduate studies. The Faculty is currently implementing one undergraduate study programme and three graduate study programmes.

After a student acquires their diploma, the Faculty is offering them the option to continue their education as part of one university postgraduate study programme and three postgraduate specialist study programmes.



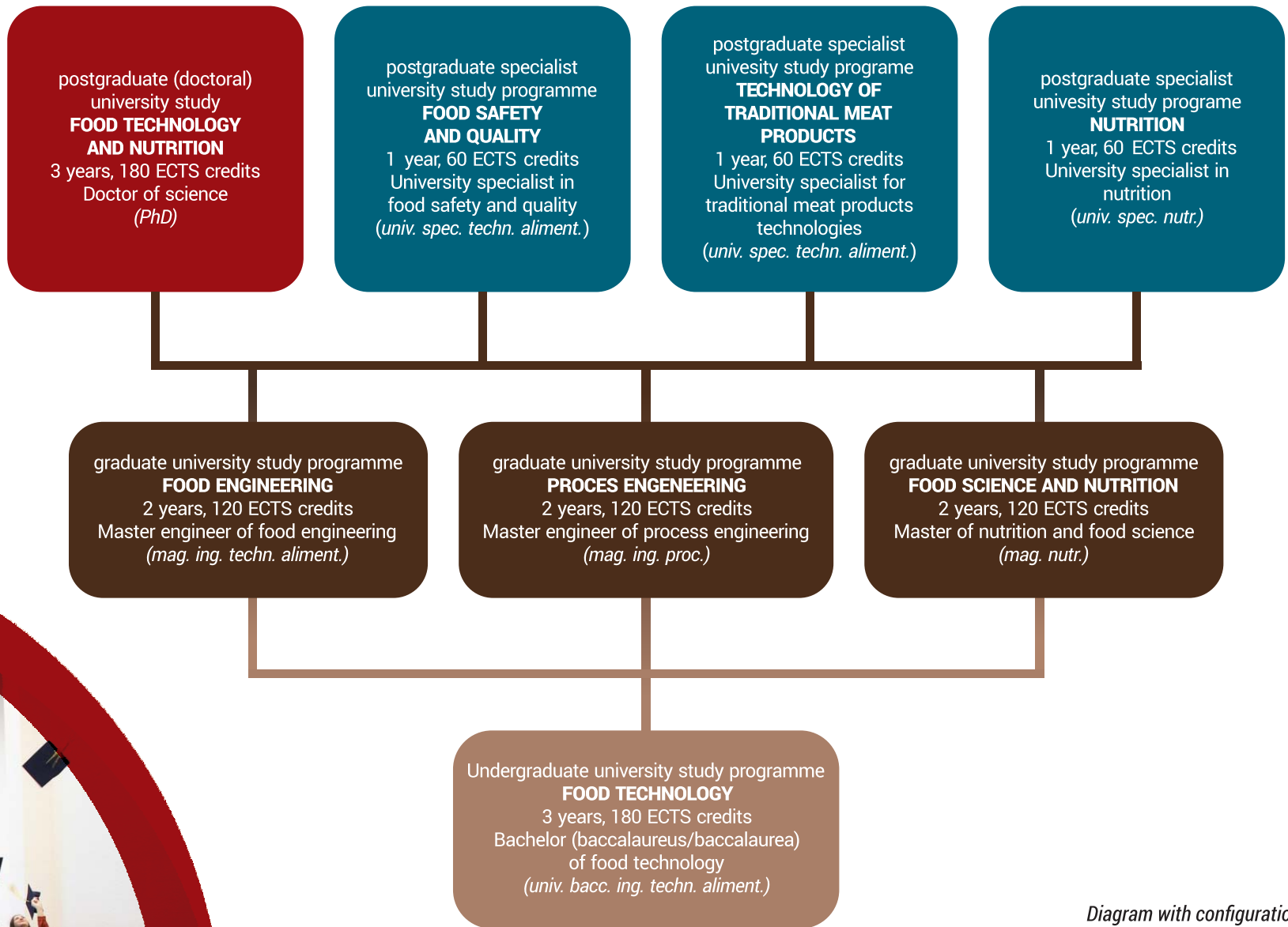


Diagram with configuration of all study programmes offered by the PTFOS





University Undergraduate Study Programme Food Technology

The duration of the study programme is six semesters (three years), during which the students may acquire the minimum of 180 ECTS credits and the knowledge that will enable them to continue higher education at graduate study programmes, as well as enough professional knowledge and skills that will make them ready for the labour market, as process managers in various industries, persons in charge of improving process and product quality, laboratory workers, and other. After completing the study programme, the students acquire the academic title of university bachelor (*baccalaureus/baccalaurea*) engineer of food technology (*univ. bacc. techn. aliment.*).

Graduate Study Programmes

The duration of graduate university study programmes is four semesters (two years) during which the students may acquire the minimum of 120 ECTS credits and the academic title of master of the appropriate profession. After completing both the undergraduate and graduate study programmes, the students will acquire the qualifications and competences to be able to do the jobs with the highest level of complexity required at the labour market, and they will also have all the prerequisites necessary to start postgraduate study programmes.

Graduate Study Programme Food Engineering

The students that complete this study programme become master engineers of food engineering (*mag. ing. techn. aliment.*) with enough general and professional knowledge in basic science, as well as food chemistry, microbiology, process engineering, food engineering, food technology, food and nutrition science, and other disciplines, that enable them to engage in work related to food production, management of technological processes in food industry, upgrading existing processes and technologies or introducing new ones, and designing industrial facilities. Apart from everything mentioned, they are also trained to work in upgrading existing and developing new food products, and quality assurance and control. They are also qualified to work in science institutions (faculties, institutes), at research and development departments, as well as in schools, where they can teach certain profession-specific courses.



Graduate Study Programme Process Engineering

After students complete the graduate study programme Process Engineering, they will acquire the academic title of master engineer of process engineering (*mag. ing. proc.*). Apart from general knowledge, they will gain professional knowledge from the area of designing, modelling, and simulating processes, environmental engineering, bioprocess engineering and related disciplines, as well as professional and scientific training required to manage technological processes in chemical, food, and other industries, and upgrading existing or introducing new processes and technologies. They will also acquire the necessary knowledge from the area of technological process optimisation in process and food industries.

Graduate Study Programme Food Science and Nutrition

This programme educates and trains masters of nutrition and food science (*mag. nutr.*) for work in the food industry, at jobs related to food safety and quality, in research and development departments, in control institutions, or in state administration. This particular occupation also provides the opportunity to work on planning and organising diets, as well as preparing food at hospitality establishments, hospitals, the military, etc., and working in state institutions on education and promoting health (hospitals, schools, the media, and similar). Also, the acquired knowledge will provide the basis for working in counselling and diet management centres. Basic knowledge in science is complemented with specific knowledge from the area of nutrition, microbiology and food analysis, and legislature.



University Postgraduate Study Programme Food Technology and Nutrition

The study programme has been organised according to the latest scientific discoveries and the skills related to those discoveries, and it is comparable to programmes in other European Union countries. The study programme includes courses that provide knowledge and competences regarding the latest achievements in food technology and nutrition. Aside from the standard, direct forms of teaching, the study programme mainly focuses on a system of valorisation and recognising learning outcomes acquired through extra-curricular forms of learning. Among the learning outcomes, the emphasis is on the competences for creating and evaluating new knowledge, and developing abstract and creative thinking.

The interdisciplinary study programme specifically focuses on the development of skills necessary for successful interdisciplinary scientific and research work and transferring knowledge and skills, with the goal of improving the quality of higher education, research institutions, strengthening the competitiveness of the industry, and better acclimatisation of students to the constant changes and the complex needs of the modern workplace environment. The most important transferrable skills integrated into the study curriculum are: teamwork, verbal communication and presentation, problem solving, work organisation, time management, business awareness (market understanding and the conditions for the successful business activities of a company).

After satisfying all the mandated requirements and publicly defending their doctoral dissertation, the candidate will acquire the academic degree Doctor of Science (*PhD*).

Major Food Technology: Doctor of Science (*PhD*) from the scientific area of Biotechnical Sciences, scientific field of Food Technology

Major Nutrition: Doctor of Science (*PhD*) from the scientific area of Biotechnical Sciences, scientific field of Nutrition.

As demonstrated by everything above, by completing the study programme, the candidates will acquire the necessary knowledge and competences required for complex jobs in the area of food technology and nutrition, which offers them a great employment opportunity, as well as postdoctoral training at various domestic and international institutions.

The study programme usually lasts for 3 years (6 semesters) for full-time students, or up to 5 years for part-time students, and after completing the programme the students will earn 180 ECTS credits.

Postgraduate Specialist Study Programme Food Safety and Quality

This is a two-semester study programme after which the students will earn no less than 60 ECTS credits and the academic degree of University Specialist for Food Safety and Quality (*univ. spec. techn. aliment.*).

The study programme enables the acquisition of knowledge related to food microbiology, quality assurance and control, hygiene and sanitation, toxicology, HACCP, and the latest discoveries in food products technology, starting with raw materials, through production and storage, to distribution and consumption. University specialists will get competences for working in the food industry and the related industries, at jobs related to food safety and quality, in healthcare and other institutions, where this aspect is also present, as well as in the entire chain of food production and marketing. Also, professionals in this field are qualified to work in research and development at control institutions or in state administration, as well as in health education and promotion activities (hospitals, schools, the media, and similar).

Postgraduate Specialist Study Programme of Technology of Traditional Meat Products

This study programme has been designed in cooperation with the Croatian Veterinary Institute in Zagreb, and it is implemented as a one-year study programme, after which the students will earn no less than 60 ECTS credits and the academic degree of University Specialist for Traditional Meat Product Technologies (*univ. spec. techn. aliment.*). The concept of the study programme is to familiarise the production professionals and those planning to start traditional meat products production with the latest discoveries in the entire manufacturing chain, from breeding, raw material preparation, production technology, production hygiene, veterinary health conditions, to the final product quality analysis and marketing. Also, postgraduate students are trained for jobs in the meat industry and the hospitality sector, and for starting entrepreneurial projects, like family-run farms (OPG), trades and crafts, or companies, engaged in the production of traditional meat products, as well as for active participation in research and development activities.

Postgraduate Specialist Study Programme Nutrition

It is organised as a single-year study programme (minimum of 60 ECTS credits), which provides the students with knowledge from the area of nutrition and trains them for independent work on jobs related to evaluating the quality of diets and implementing education related to preserving health and preventing illnesses. After completing the study programme, a student will acquire the academic degree of university specialist of nutrition (*univ. spec. nutr.*).

Scientific Research

Scientists and their associates, not only participate in the higher education at our Faculty, but also conduct their scientific research through different national and international scientific projects. The laboratories at our Faculty are well-equipped with different modern analytical and pilot scale equipment used for both the implementation of the teaching process and scientific research.

The scientific activity of our employees could be easily seen in:

- The realization of a number of international projects funded from the EU Programmes,
- In the conducting of research projects financed by the Croatian Science Foundation,
- In the realization of smaller projects, like Adris foundation,
- In the participation and leading of international bilateral projects, and
- In the leading of different University science projects.

Since 2015 our Faculty has been a partner institution in the Centre of Research Excellence for Marine Bioprospecting – BioProCro with the Ruđer Bošković Institute as a host institution.

The quality and quantity of scientific research could be seen in numerous scientific papers that have been published in internationally acknowledged journals indexed in various data bases (Web of Science Core Collection, Current Contents Connect, CAB Abstract, Food Science and Technology Abstract, etc.) and presented at international conferences. The number of scientific papers with foreign scientists as co-authors has been constantly increasing.

Furthermore, the scientists of our Faculty have received numerous awards, the most important among which are:

- National Life Achievement Award for Science by the Croatian Parliament,
- Annual Science Award by the Croatian Parliament for the significant scientific achievements, popularization and promotion of science,
- Croatian Academy of Engineering awards "Rikard Podhorsky" and "Vera Johanides",
- Annual State Award for Science by the Croatian Parliament for young scientists,
- Danubius Young Scientist Award – an annual award by the Federal Ministry of Science, Research and Economy of the Republic of Austria and the Institute for the Danube Region and Central Europe,
- Annual Science Award by Osijek-Baranja County,
- Seal of Osijek-Baranja County for the special contribution to the scientific research and teaching activities, and many other awards.

The Faculty has been continuously working not only to connect and cooperate among the research groups within the Faculty, but also on to conduct interdisciplinary research among different institutions.

The aims of the international cooperation of our Faculty are:

- Connection with international partner institutions around the world,
- Participation in international programmes and projects,
- The organization of international scientific conferences, workshops, seminars, lectures, etc.,
- The sharing of good teaching methods as well as scientific and research methods and
- Encouraging mobility of teaching staff, assistants and postdoctoral candidates

The scientific research and the mobility at the Faculty contribute to the achievement of national and international research excellence in the fields of biotechnical, technical and natural sciences and to the transfer and application of gained knowledge for the prosperity of society.



Professional work and cooperation

The Faculty of Food Technology Osijek actively implements professional and development projects which result in the advancement of new technologies in the food industry and the improvement of the quality of existing agricultural and food products. New scientific discoveries are transferred to industry, which positively impacts the domestic economy.

The professional work of faculty employees can be seen:

- in the realization of professional projects,
- in other activities, like the organization of professional conferences, participation in professional societies, implementation of professional courses, and giving expert opinions,
- in implementing 12 lifelong learning programs,
- in signing cooperation agreements with business and public institutions,
- in carrying out laboratory analyses for economic entities by some independent units or laboratories of the Faculty.

One of the strategic objectives of the Faculty is to enhance cooperation with the private and public sector to develop projects and research directly connected to that sector, and to provide financial gain to the Faculty that comes from such sources outside of the institution and of science and education.

In addition to these activities, the Faculty of Food Technology Osijek cooperates with numerous companies in the region of Slavonia and throughout the country, where undergraduate students each year carry out more than a hundred compulsory professional practices. Beginning last year, graduate students can apply for voluntary professional practices (internships) and in various companies advance their knowledge and skills that prepare them for future occupation.

Lifelong Education

Aside from formal education, since 2011, PTFOS has started and is still implementing various education programmes as part of the lifelong learning concept (12 programmes), which fully meet the requirements from all the components of the Bologna process. With the successful realisation of those education programmes, PTFOS has further strengthened its function as a public educational and scientific institution and enhanced its relationship with the business sector.

The following education programmes are being implemented:

- Programme for the education of cheese manufacturers at family-run farms (OPGs),
- Education for the manufacturers of Slavonian kulen at family-run farms (OPGs),
- Fruit and vegetable quality, storage, preparation for sale, and processing,
- Industrial drying,
- Sensory analysis in the food industry,
- Health from the plate,
- Setting up food safety systems in hospitality establishments and small businesses,
- Modern technological procedures for the production of fruit distillates,
- Programme for the education of Slavonian sausage manufacturers at family-run farms (OPG),
- Training, testing, and education programme for the sensory analysis of honey,
- Traditional and modern procedures for the processing of medicinal plants.



Publications and Conferences

Since 2009, the Faculty has been publishing the international scientific and professional journal *Croatian Journal of Food Science and Technology*. The journal is aimed at scientists, professionals, students, and the wider social community. The *Croatian Journal of Food Science and Technology* publishes original scientific papers, preliminary communications, scientific reviews, professional papers, and presentations at scientific conferences.

Also, the Faculty co-publishes, along with the Faculty of Pharmacy and Technology of the University of Tuzla, the international scientific and professional journal for nutrition and dietetics *Food in health and disease*, which is being published since 2012. The journal is focused on the area of nutrition and dietetics, or the effect of food ingredients and diet on the human organism.

The organisation of scientific conferences is a very important segment of promotion for the science and the profession, as well as for the institution.

The Faculty organises or co-organises several international and domestic scientific and professional conferences:

Flour-Bread

<http://www.ptfos.unios.hr/brasno-kruh/>

Ružička Days

<http://www.ptfos.unios.hr/ruzicka/>

With Food to Health

<http://www.ptfos.unios.hr/Hranom-Do-Zdravlja/index.php/hr/671-2/>

Water for All

<http://www.ptfos.unios.hr/index.php/voda-za-sve>

ISC Green

http://www.ptfos.unios.hr/isc_green/

Young researchers day

<https://istrazivaci-os.com.hr/>



Popularisation of science

Every year, the Faculty participates in the organisation of various events (lectures, forums, and workshops) as part of the event titled Festival of Science, and it also organises events titled Night of Science and School of Chemistry. The number of approximately 1000 visitors of all ages that come to the Faculty during those events is proof that the Faculty is attractive and that it offers interestingly designed workshops and lectures. The goal of the mentioned activities is to bring science closer to the public, i.e. inform the public about the activities and results in the area of science, improve the public perception of scientists, and motivate young people to engage in research and acquire new knowledge. The students, assistants, and teachers at the Faculty are exceptionally active in their role of promoting science.



Students

Despite their many commitments in classrooms and laboratories, it is now a tradition that PTFOS (Faculty of Food Technology) students are successful in other areas of activity: science, humanitarian efforts, sports, social engagements, even entertainment, because these are ultimately the things that connect and bring the students closer. Of course, everything is conducted through the mediation of the student representatives maintained by the Student Union of our Faculty, which acts as a bond between the students and the Faculty.

The first thing to mention regarding the activities of PTFOS students, considering the options and the workload of an average student, is the fact that PTFOS students will engage in humanitarian efforts regardless of the time or location, and the response from the bold students to these warm human gestures is enormous. They are active through associations engaged in humanitarian work, but also on their own, they gather food or clothes for those in need, money for those with insufficient means, as well as engage in organised visits to the children's home Klasje.

As part of the Faculty, every year the Union organises the so called Roštiljada (Barbecue Party), which is also a part of the commemoration of the Faculty of Food Technology Day, where all generations of PTFOS students attend and socialise, even those who graduated a long time ago, along with the Faculty employees. Also, organised by one of the other participant faculties in Croatia, the Tehnologijada, a week long science and sports event, takes place. Our Faculty has been one of the participants from the very start, and the Tehnologijada tradition spans twenty years of activities. Our students regularly bring home medals, whether in volleyball, basketball, football, or other sports.

PTFOS students regularly participate in the Science Festival, an event held at the same time in several Croatian cities, including Osijek. The goal of the Festival is to bring science closer to the public, i.e. inform the public regarding the activities and results in science, improve the public perception of scientists, and motivate young people to engage in research and acquire new knowledge. As the name of the event suggests, it is a week in which science is celebrated. Every year the Festival has a new central topic. Students, assistants, and Faculty teachers are extremely active at the Science Festival, where the central topics of the Festival are covered through workshops, lectures, and poster presentations.

Since 2017, PTFOS students also participate in the Night of Science, an event organised by our Faculty, where they also participate in workshops and other activities.

Students participate in the activities of the Faculty Council, the Student Disciplinary Court, the Committee for Monitoring and Quality Assurance of Higher Education at the PTFOS, the Committee for Granting Awards and Recognitions, the Committee for Designing and Maintaining the Network Centre of the Faculty, the Committee for the Promotion of the PTFOS, the Ethical Committee of the PTFOS, and the Ethical Committee for Scientific and Research Work. The students participate in all discussions, propose items on the agenda, and vote equally on the proposed conclusions in the mentioned committees.





Department of food technologies

www.ptfos.unios.hr/en/index.php/department-of-food-technologies

Research

- Membrane concentration,
- Influence of processing on chemical properties and quality of fruit- and oil plant-based products,
- Wine production, production and stabilisation of cold pressed oils,
- Quality of fruit- and vegetable based products and its improvement by different additives,
- Chemical and biochemical changes during wheat storage and flour production,
- Development and improvement of bakery products, pasta and biscuits,
- Influence of additives and freezing on quality and shelf-life of bakery products,
- Carbohydrates, structure and properties,
- Enzymatic, physical and chemical modification of carbohydrates,
- Quality, stability and development of confectionery products; application of food industry by-products in development of new extruded products,
- Application of immobilized yeast cells in production of alcoholic beverages,
- Development of methods for determination of thermophysical properties of food,
- Mathematical modelling of non-stationary processes in food technology,
- Development of traditional meat product technologies,
- Development of new products and processes in fermented dairy technology,
- Sensory and nutritional properties of new cheese types, application of novel salt mixture in production of new cheese type in co-operation.



Members of Department

- academic Vlasta Piližota, PhD, professor
 - Drago Šubarić, PhD, professor
 - Jovica Hardi, PhD, professor
- Dragan Kovačević, PhD, professor
 - Jurislav Babić, PhD, professor
- Tihomir Moslavac, PhD, professor
 - Mirela Kopjar, PhD, professor
 - Vedran Slačanac, PhD, professor
 - Borislav Miličević, PhD, professor
 - Nela Nedić Tiban, PhD, professor
- Daliborka Koceva Komlenić, PhD, professor
 - Marko Jukić, PhD, associate prof.
- Đurđica Ačkar, PhD, associate prof.
 - Anita Pichler, PhD, associate prof.
- Krešimir Mastanjević, PhD, associate prof.
 - Mirela Lučan, PhD, assistant prof.
- Antun Jozinović, PhD, assistant prof.
 - Ante Lončarić, PhD, assistant prof.
 - Ivana Ivić, MSc, assistant
- Ana Domaćinović, BSc, professional associate
 - Ana Šušak, BSc, professional associate
 - Tera Mandić, technician
 - Daniela Paulik, technician



Department of applied chemistry and ecology

www.ptfos.unios.hr/en/index.php/department-of-applied-chemistry-and-ecology

Research

- Synthesis of potentially bioactive substances; synthesis using ecologically acceptable methods (mechanosynthesis, eutectic solvents or MC); isolation and analysis of bioactive substances from food and herbs using various instrumental techniques (high-performance liquid chromatography, electrochemical or UV/Vis spectroscopic techniques).
- Surface and ground-water monitoring; determination of the efficiency of the process of water preparation for human consumption and the process of waste water purification; determination of physico-chemical and microbiological parameters of water quality.
- Analysis of mycotoxins in food, feed and biological samples; influence of nanoparticles on mycotoxicogenic molds that most frequently contaminate food; antifungal activity testing; estimation of exposure to metals and mycotoxins by biomarker analysis.
- Biochemical analysis of food (proteins, enzymes and endogenous fluorophores).
- Interactions between bioactive compounds and dietary fibers; study of bioaccessibility of bioactive secondary metabolites.



Members of Department

- Tomislav Klačec, PhD, professor
- Mirna Habuda-Stanić, PhD, associate prof.
- Lidija Jakobek Barron, PhD, associate prof.
 - Ivica Strelec, PhD, associate prof.
- Dajana Gašo-Sokač, PhD, associate prof.
 - Maja Molnar, PhD, associate prof.
- Valentina Bušić, PhD, assistant prof.
 - Tihomir Kovač, PhD, postdoc.
 - Marija Nujić, PhD, postdoc.
 - Ivana Tomac, PhD, postdoc.
- Martina Jakovljević, mag. nutr., assistant
- Mario Komar, mag. educ. chem., assistant
 - Petra Matić, MSc, assistant
- Andrej Bašić-Palković, technician
 - Ivanka Cindrić, technician
- Biljana Crevar, MSc, technician
 - Bernarda Grabić, technician



Department of process engineering

www.ptfos.unios.hr/en/index.php/department-of-process-engineering

Research

- Development of biotechnological methods in the food and beverage production
- Production and analysis of special types of malt and beer
- Analysis of cereals contaminants for the cereals used in malt production, and investigation of prevention methods in mycotoxin production
- Application of enzymes and microbial starter cultures in food industry
- Production of wine and fruit wines and investigation of its enological and functional properties
- Development of ecologically friendly methods in food production and processing
- Development of new extraction methods: CO₂ supercritical extraction, extraction with subcritical water, microwave extraction, ultrasound extraction, cold plasma extraction, extraction with eucletic solvents
- Development of drying methods in food production and processing: spray drying, liofilization, thin layer drying and fluid-bed drying
- Production of industrially important enzymes and bioactive compounds from lignocellulosic-type of waste
- Application of lignocellulosic-type of waste in synthetic dyes removal
- Application of fungi in bioremediation of waste and wastewater
- Biological treatment of waste in biogas production
- Production of 2nd generation of fuels (biogas and biodiesel) from lignocellulosic-type of waste
- Cost-benefit analysis for biogas production
- Biotransformation in classical reactors and microreactors
- Process optimization
- Mathematical modelling of the processes in food industry
- Prediction of chemometric methods and non-destructive methods of analysis (computer vision analysis methods - image analysis)
- Developing systems for measuring, data logging and automatic process regulation based open source platforms (such as Arduino and RaspberryPi) and their application in food processing



Members of Department

- Mate Bilić, PhD, professor
- Vinko Krstanović, PhD, professor
- Damir Magdić, PhD, professor
- Srećko Tomas, PhD, professor
- Darko Velić, PhD, professor
- Ana Bucić-Kojić, PhD, associate prof.
- Sandra Budžaki, PhD, associate prof.
- Stela Jokić, PhD, associate prof.
- Mirela Planinić, PhD, associate prof.
- Marina Tišma, PhD, associate prof.
- Natalija Velić, PhD, associate prof.
- Frane Čačić Kenjerić, PhD, assistant prof.
- Jasmina Lukinac Čačić, PhD, assistant prof.
- Kristina Mastanjević, PhD, assistant prof.
- Gordana Šelo, MSc, assistant
- Marta Ostojčić, MSc, assistant
- Davor Varga, technician



Department of food and nutrition research

www.ptfos.unios.hr/en/index.php/department-of-food-and-nutrition-research

Research

- assessment of the quality of diet of specific targeted population groups and the development of adequate instruments for such assessments,
- dietary food sources and biologically important compounds and the influence of functional food components on the organism,
- application of instrumental and sensory methods in food safety and quality,
- determination of honey botanical and geographical origin from different aspects, royal jelly quality, sensory characteristics and acceptance of different products formulations,
- response of the plants to abiotic and biotic stresses,
- usage of microorganisms in ecology and ecological agriculture, and the degradation of pollutants
- usage of natural and synthetic components in the antimicrobial protection of food, the interactions between probiotic bacteria and food borne pathogens.



Employees

- Daniela Čačić Kenjeric, PhD, professor
 - Antonija Perl Pirički, PhD, professor
 - Ljiljana Primorac, PhD, professor
- Hrvoje Pavlović, PhD, associate prof.
 - Ines Banjari, PhD, associate prof.
- Lidija Dujmović, PhD, assistant prof.
 - Ivana Flanjak, PhD, assistant prof.
 - Tihana Marček, PhD, assistant prof.
 - Blanka Bilić Rajs, MSc, assistant
 - Maja Ižaković, MSc, assistant
 - Dijana Podravac, MSc, assistant
 - Lidija Šoher, MSc, assistant
- Milica Cvijetić Stokanović, MSc, professional associate
 - Ana Škorvaga, technician



Subdepartment of foreign languages and physical education

www.ptfos.unios.hr/en/index.php/independent-subdepartments

The Scope of Research and Teaching

Foreign language teaching for special purposes allows students' mobility and involvement in the learning process outside the country, enabling students to have permanent education through reading professional literature, attending seminars, and conferences and meeting international students and scientists. Students are taught the following skills:

- Introduction to less and more complicated texts and specific lexis in the field of food technology
- Searching for specific information in various scientific discourses
- Comprehension of texts via global and detailed reading
- Oral presentation of certain topics which serve as an extension to already covered topics
- Abstract writing; text cohesion and coherence
- Integration of extralinguistic and linguistic knowledge in generating meanings at the sentence and text levels
- Practice of grammatical structures such as passive voice, indirect speech, question formation, gerund, infinitive, present and past participle, and conditionals

Apart from teaching, our subdepartment is involved in proofreading of scientific papers as well as translating professional texts and documents.

Employees

- Antonija Šarić, PhD, assistant prof.
- Lahorka Budić, MA, lecturer

ALUMNI

ASSOCIATION TehnOS – THE ASSOCIATION OF FORMER STUDENTS AND FRIENDS OF THE FACULTY OF FOOD TECHNOLOGY OSIJEK

The Association of Former Students and Friends of the Faculty of Food Technology Osijek with the seat in Osijek, Franje Kuhača 20, was registered by the Decision of the State Administration Office in the Osijek-Baranja County from 25 March 2011. The abbreviated title of the association is TehnOS. The Association has been registered in the Associations Register of the Republic of Croatia.

The Association was founded for the purpose of preserving the tradition of the Faculty of Food Technology Osijek, promoting the reputation of the Faculty and the engineering profession, improving the quality of education for students, advancing scientific and professional work, providing aid to current students in their professional practice and employment, and further helping the members of the Association according to their needs. The activities of the Association include independent work on achieving their goals, along with effective cooperation with educational and scientific institutions, chambers, companies, and other bodies and organisation related to food technology, food engineering, applied chemistry and ecology, and/or related areas.

As part of its activities, the Association TehnOS holds several different events: educational lectures, public forums, workshops, project realisations, book presentations, professional trips, and similar.





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