DETAILED PROPOSAL OF THE STUDY PROGRAMME

1. GENERAL INFORMATION ON THE STUDY PROGRAMME			
1.1. Name of the study programme	Undergraduate university study programme: Food Technology		
1.2. Provider of the study programme	Faculty of Food Technology and Biotechnology, University of Zagreb		
1.3. Partner institutions	-		
1.4. Type of study programme	Vocational study programme ☐		University study programme ☒
1.5. Level of study programme	Undergraduate ☒	Graduate ☐	Integrated ☐
1.6. Manner of implementation of the study programme	Classical ☐	Mixed (classical + online) ☒	Online in entirety ☐
1.6.1. Is it a?	☒single major ☐double major ☐interdisciplinary study ☐multidisciplinary study ☐developing programme		
1.7. Academic/vocational title earned at completion of the study	Bachelor of Science Engineer in Food Technology (univ. bacc. ing. techn. aliment.)		
1.8. Scientific/artistic field/area of the proposed study programme	Biotechnical sciences / Food technology		

2. INTRODUCTION		
2.1. Reasons for starting the study programme	Scientific need	The undergraduate study programme Food Technology was officially established in 1956 at the Biotechnology Department of the Faculty of Chemistry, Food and Mining, but it has been conducted under different names since 1921 at the University of Zagreb. With the founding of the Faculty of Food Technology and Biotechnology within the University of Zagreb (UniZG-FFTB) in 1980, the study programme Food Technology, together with the study programmes Biotechnology, and Nutrition, began at UniZG-FFTB. From its foundation until today, the study of Food Technology has been extremely important for the Croatian economy, because it educates professionals who are necessary for the successful operation of the food industry (large, medium and small-sized food enterprises), the functioning of state and public services pertaining to food legislation, and the development and improvement of food production processes,

		improving the food quality and safety, and increasing the range of food products on the market. Changes in the study system in the Croatian higher education system in accordance with the Bologna process, have led to redefining and modernizing of study programmes taught at UniZG-FFTB. Since the academic year 2005/2006, the study programmes at UniZG-FFTB have been organized on the principle of 3+2 cycles, with three undergraduate studies lasting 3 years: Food Technology, Biotechnology and Nutrition, and since the academic year 2008/2009, there have also been five two-year graduate study programmes: Food Engineering, Food Safety Management, Bioprocess Engineering, Molecular Biotechnology and Nutrition. Undergraduate study programme Food Technology that used to last 4 years or 9 semesters was transformed into undergraduate study programme Food Technology (3 years) and two graduate study programmes Food Engineering and Food Safety Management (lasting 2 years), in accordance with the needs of the market for young, educated, professional personnel whose work can follow the development and advancements in technology, both in the public and in the private sector. Intensive development of science and technology in the previous two decades, requires further profiling and modernization of study programmes and is in accordance with the Strategy for Education, Science and Technology of the Republic of Croatia (2014), the Smart Specialisation Strategy of the Republic of Croatia (2016-2020) and the UniZG-FFTB Development Strategy (2019-2025), the Faculty Council of UniZG-FFTB has made a decision to launch new university study programmes within the current vertical organization: at the undergraduate level - Food Technology (FT), and at the graduate level of studies - Food Engineering (FE). The new study programmes FT and FE will replace the existing study programmes Food Technology and Food Engineering, which have been taught, with minor modifications (up to 20%) recorded by the Quality Management Committee of the University of Zagreb (notice of 11 January 2016), from the academic year 2005/2006 and 2008/2009, respectively. The results of many years of monitoring the acquired knowledge and competencies of undergraduates, through student surveys and employers' surveys, as well as analyses

		of successful completion of exams in individual years and total study time, showed that it is necessary to take activities to harmonize the actual workload of students with ECTS credits and redistribute them with the aim of having as many students as possible complete their studies and do so in the designated time set in the curriculum. The elaboration of amendments to the study programmes included the 'vertical structure': undergraduate study programme FT and graduate study programme FE. Teachers from both studies have been elected to educational titles in the respective subject areas, and they constantly enrich the teaching contents with the latest knowledge derived from their own scientific and research work. The entire study programme FT that has been proposed is based on the latest scientific knowledge in the field of chemistry, biochemistry, microbiology and production processes with the aim of ensuring food quality. During their studies, students also acquire practical knowledge, covering all segments that are encompassed by food technology today, starting from the storage of raw materials and products, through canning, processing and production of final food products, and control and management of production processes. In addition to the development of professional competencies, special attention is also paid to the development of transfer competencies of bachelors (a new course *Communication skills in business and science* has been introduced). Students also have easier access to hands-on training by entering into cooperation agreements with potential employers (up until the academic year 2020/2021, 29 agreements have been entered into). Learning outcomes of the study programme have also been improved. All these activities were carried out in order to create a new undergraduate study programme FT that will meet the latest requirements of higher education. The offered specific contents are interesting from the scientific point of view and fit into the Croatian Qualifications Framework. The ultimate goal is redefining the competencies of bachelors engineers of food technology, with the purpose of creating the preconditions for greater employment opportunities. FFTB-UniZG has the human resources and infrastructure to conduct the proposed study programme. The project of launching the proposed study programme FT ensures the use of existing human and material resources, strengthens the infrastructure and increases competitiveness at the international level. All this contributes to the

		affirmation of the University of Zagreb, as well as the Faculty of Food Technology and Biotechnology as its component, the expansion of its activities and ensuring the sustainability of teaching and research activities.
	Cultural need	With this study programme, we educate professionals who will know the important features of foodstuffs and the production procedures from an expert point of view. Professionals who master such knowledge, in today's time of growing production of various food products, are extremely necessary in order to be able to disseminate and transfer that knowledge to the entire population. Educating the general population about the importance of knowing certain food products, their value and their specifics, as well as the importance of choosing the right foods, is certainly a feature of developed societies and contributes to the development of culture in general, as well as food culture. In highly developed societies, an important feature of the population is the knowledge and acceptance of proper eating habits, which is something the professionals educated on the matter through this study programme will certainly contribute to. Also, it is especially important to preserve and nurture, both in food production, as well as in large industrial and small production plants, the production of already known, but perhaps a bit forgotten, traditional food products. In that way, the traditional food processing will be spread and passed on to the younger generations, which contributes to the preservation of our cultural heritage. Designing new food products based on the possibly neglected raw materials of our region will contribute to a better understanding of our history and cultural heritage. And it is a well-known fact that food, knowledge of food customs and food production are a significant part of the cultural identity of every nation. Numerous cultural events that are organized in all our regions also promote the food culture of that area, whether it is the coast and Mediterranean food, or the inland and some specific products of the continental regions. When it comes to organization, promotion of ideas about preserving tradition and education about food, and certainly in the production and control of many food products that are an indispensable part of all these cultural events, the participation of food technologists is essential. Based on all of the abovementioned, and given that food is a part of the culture of every society, the need for this study programme, which will educate food technologists responsible for all aspects of food production, is certainly evident, especially from the aspect of culture.

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	Social need	The task of every society is to provide safety, quality and nutritional value of food for the entire population of a country, and that is exactly the mission of food technology. Food technologists play a particularly important role in fulfilling this task. Their role is not only related to the production and control of food products, but they are indispensable participants in building a legislative framework that defines the criteria that later affect the achievement of the required characteristics of food, and the production of such food, which is a significant contribution to public health. According to the United Nations General Assembly (1985), food is one of the three key factors contributing to human health. The study of food technology is also important because it represents a specific and concrete basis for the continuing education of food technologists at a graduate level, in study programmes Food Engineering or Food Safety Management at the University of Zagreb, Faculty of Food Technology and Biotechnology or at related studies of other universities, which educate experts at a higher level to perform various specialized tasks of high complexity in food production and control. Knowledge society is the goal that the Republic of Croatia strives for, and specific knowledge about the production, control and supervision of food production that is acquired in these studies is necessary for the proper functioning of society as a whole. The study programme Food Technology covers all the aforementioned issues and enables students to learn about the need to respect the highest ethical standards and the principles of sustainable production. In addition to compulsory courses, the study programme contains a number of elective courses through which students are able to acquire specific knowledge which meets the need of the society for various professionals who can find their place in various job posts not only in food industry, but also public administration where they can perform various jobs in the food segment and thus contribute to the development of society as a whole.
	Economic need	Without profiling these experts, the survival of the food industry in the Republic of Croatia is impossible, the industry that survives and prospers despite all the current economic turbulence, whether it is large industrial plants or smaller processing plants. Food processing is extremely important from an economic and health point of view, so food production in every processing plant (SME, and even production plants within family farms) must be managed by educated professionals, food technologists. High demands for marketing quality and safety food products according to the highest

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		criteria, regardless of the capacity of the production plant, require the engagement of food technologists first. Experts of this profile are educated to perform tasks of appropriate complexity related to the production, distribution and marketing and storage of raw materials, semi-finished products and food products in plants of the entire food industry as well as jobs of appropriate complexity in microbiological, physical and chemical, sensory and instrumental laboratories of the food industry and in control laboratories where quality, safety and authenticity of food products are controlled. They are also trained to manage, supervise and control production, especially in small-capacity plants of food industry, following all regulations for sustainable production, which includes waste disposal and the use of byproducts. In addition to all of the above, they are trained to perform tasks of an appropriate level of complexity related to the preparation of process water, water for human consumption and wastewater treatment. From the aforementioned, it is clear that without the experts of this profile there is no economic survival and progress of the Republic of Croatia in the extremely important sector of food production.
2.2. Assessment of the study programme's usefulness relative to the demands of the labour market in the public and private sectors	The market targeted by the participants of this study programme is the public and private sector pertaining to food production in the Republic of Croatia and abroad. The purposefulness of the study programme stems from the need for professionals with competencies pertaining to the management, supervision and control of the production processes in smaller plants of the food industry. With this programme, the Faculty of Food Technology and Biotechnology of the University of Zagreb strives to meet European standards and needs arising from the dynamic international labour market.	
2.3. Compatibility of the study programme with the University mission and the strategy of the proposer, as well as with the Higher Education Institutions Network strategic plan	The study programme Food Technology is in line with the goals of the mission and vision of the University of Zagreb. Its most significant contribution is to goal 5 ('The University will develop study programmes needed by the society and the economy, as well as nationally and strategically necessary study programmes. It will encourage excellence in teaching and academic achievements of students and teachers, and to this end it will improve various student and academic services'), and it will also play a significant role in achieving goal 4 ('The University will engage in public activities as a generator of technological, economic and social development in accordance with the strategic needs of the Republic of Croatia') and goal 2 ('The University will encourage excellence in scientific and artistic research in an effort to maintain its position as one of the leading research universities in Southeast Europe '). The study programme PT 2 is in line with the following strategies of the University of Zagreb: Strategy for the Quality Assurance System of the University of Zagreb, Strategy for Study Programmes and Studying at the University of Zagreb, Strategy for Student Support System Development at the University of Zagreb, Strategy for Research, Technology Transfer and	

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	Innovation of the University of Zagreb and the Strategy for Internationalization of the University of Zagreb. In addition, the connection with the Development Strategy of the Faculty of Food Technology and Biotechnology, University of Zagreb 2019-2025 is indisputable, whose first General Objective is "to provide state-of-the-art, internationally recognized education in line with qualifications frameworks, the educational needs of students, the labor market and the society as a whole, based on integration with the latest research, a creative and stimulating learning and teaching environment and a comprehensive support system". The study is in line with the Guidelines and Criteria for the Establishment of New Study Programmes at the Existing Higher Education Institutions, which can be found in chapter 3, subsection 3.1. of the strategic document Network of Higher Education Institutions and Study Programmes in the Republic of Croatia. In chapter 7, Overview by counties, subsections 7.1. to 7.21, subchapter Recommendations for Educational Enrolment and Scholarship Policy, there is no mention of the need to increase or decrease the quota related to the education of food technologists at the regional and national level in the Republic of Croatia, which shows that current labour market needs are well balanced.
2.4. Comparability of the study programme with other accredited programmes in higher education institutions in the Republic of Croatia and the EU (name at least two programmes, one of which is from an EU country, and compare them with the proposed programme; provide internet addresses of the programmes)	Due to the growing needs of the food industry in the eastern region of the Republic of Croatia, in 2006 the Faculty of Food Technology at the Josip Juraj Strossmayer University in Osijek (FFT) began conducting the undergraduate study programme Food Technology (http://www.ptfos.unios.hr/index.php/o-fakultetu/natjecaji/studiji/preddiplomski-studij-prehrambena-tehnologija). In 2016, the undergraduate study programme Food Technology was launched at the University of Split at the Faculty of Chemical Technology (FCT) (https://nastava.ktf-split.hr/studij.php?lang=hr&kod=PPT) with the aim of educating the professionals necessary to encourage the development of the agricultural and food sectors in the southern region of the Republic of Croatia. In the development of studies at FFT and FCT, a significant role was played by the teachers and scientists of the Faculty of Food Technology and Biotechnology, University of Zagreb, either as teachers in the study programme or as mentors for doctoral theses of today's teachers employed at FFT and FCT, who have mostly obtained their doctorates at FFTB. Although the listed study programmes are basically very similar, each has certain specifics pertaining to the area where it is conducted. The study programme Food Technology at FFTB is conceived in accordance with global trends in the development of the food industry with the aim of increasing the competitiveness of the domestic economy. It is based on the latest scientific achievements in the production and development of food products, methods of food safety and quality control, and methods of preparation and preservation of finished products. This study provides a strong foundation in compulsory and specialized courses, and provides the opportunity for students to profile themselves through a variety of elective courses. In addition to the aforementioned, during the development of this study programme, the goal was to maintain the existing reputation of FFTB in the immediate Central European environment, and to design the programme in line with

	those of leading European universities in these fields of science. Thus, when drafting the proposal of the revised study programme Food Technology, we modelled it according to reputable institutions with study programmes that are comparable to our total duration, the number of ECTS credits obtained after graduation, a similar curriculum (in terms of the relationship of core courses and specialized courses), elective courses offered to students, the method of preparation and evaluation of the final thesis, as well as the competencies that students acquire upon completing their studies. These are: 1. Wageningen University and Research, undergraduate study Food Technology (https://ssc.wur.nl/Handbook/Programme/BFT), 2. Alma Mater Studiorum University of Bologna Cesena Campus; undergraduate study Food Technology (https://corsi.unibo.it/1cycle/FoodTechnology/course-structure-diagram/piano?code=8528&year=2020&manifest=en_2020_8528_000_000_2020), 3. Ghent University, Faculty of Bioscience Engineering, undergraduate study Bioscience Engineering Main subject: Chemistry and Food Technology (https://studiegids.ugent.be/2019/EN/FACULTY/I/BACH/IBBIORCV/IBBIORCV.html) and 4. undergraduate study Food Technology Ghent University Global Campus (https://studiegids.ugent.be/2019/EN/GC/O/BACH/OBFOTE/OBFOTE.html). The Faculty of Food Technology and Biotechnology of the University of Zagreb has entered into ERASMUS+ mobility agreements with these universities, i.e. faculties.
2.5. Openness of the study to student mobility (horizontal, vertical in the Republic of Croatia and international)	Mobility of Food Technology 2 students is regulated by the *Decision on the manner of implementation of student mobility procedures, FFTB, University of Zagreb*, http://www.pbf.unizg.hr/o_fakultetu/dokumenti/odluka_o_nacinu_provedbe_postupaka_mobilnosti_studenata. According to that Decision, **horizontal mobility** of the students of Food Technology is achieved in the following ways: i) instead of an elective course, undergraduate students have an opportunity to enrol in any compulsory or elective course from the remaining two undergraduate study programmes of FFTB, ii) FFTB students have an opportunity to enrol in courses of other university studies at the University that are not taught at their enrolled study programme. The enrolment requirements for the course are described in the aforementioned document. **Vertical mobility** of the students of Food Technology is enabled by direct enrolment in FFTB's graduate university study programmes Food Engineering and Food Safety Management or enrolment with passing differential exams for graduate university study programmes Nutrition, Bioprocess Engineering and Molecular Biotechnology at FFTB. Students can also enrol in graduate studies at other faculties of the University of Zagreb or outside it. **International mobility** of the students of Food Technology is defined by the Regulations on International Mobility of the University of Zagreb. The FFTB Office for International Cooperation provides students with support in achieving international mobility within the CEEPUS and ERASMUS+ programmes. In the academic year 2019/2020, a total of 55 ERASMUS+ Agreements were signed, of which 30 were intended for the undergraduate students of Food Technology.

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	http://www.pbf.unizg.hr/medunarodna_suradnja/medunarodna_mobilnost/medunarodni_programi_razmjene
2.6. Relationship with the local community (economy, entrepreneurship, civil society, etc.)	The food industry is the most important economic branch in the Republic of Croatia and there is a great interest in this study. Graduated bachelors of Food Technology, in addition to food industry, have the opportunity to be employed in small family businesses and can find their job posts in public administration, thus contributing to the development of civil society.
2.7. Compatibility with the requirements of professional associations, if any exist	The FT study programme is in line with the goals and tasks of the Croatian Association of Food Technologists, Biotechnologists and Nutritionists.
2.8. Name possible partners outside the higher education system	A Cooperation Agreement has been signed with 29 legal entities, potential employers of bachelor engineers of food technology. On the basis of these Agreements, the realization of professional internship is facilitated (course Professional practice and final thesis in the 6th semester).
2.9. Other (as the proposer wishes to add)	-

3. GENERAL INFORMATION	
3.1. Duration of the study programme (is there an option of distance learning, part-time studying, etc.)	The study programme Food Technology lasts six (6) semesters (3 in winter and 3 in summer) in the course of three (3) academic years. There is no possibility of part-time study.
3.2. The minimum number of ECTS credits required for completion of study	180 ECTS
3.3. Enrolment requirements and admission procedure	Candidates who graduate from high school apply through the National IT System of Applications to Higher Education Institutions (NISpVU) located at the Central Application Office of the Agency for Science and Higher Education at www.postani-student.hr, for enrolment into the undergraduate study programme Food Technology. The ranking lists of registered candidates for enrolment into the undergraduate study programme Food Technology are compiled according to the following scoring system: a) Based on success in high school: up to 400 points b) Based on passed exams at the state matura: Croatian language up to 50 points, Mathematics (higher level) up to 250 points, Foreign language up to 50 points, Chemistry or Biology* up to 250 points *The requirement for enrollment in the study is at least one of the listed subjects. If the candidate has passed both subjects, the subject in which the candidate achieved better results is taken into account. c) Based on special abilities test: no points d) Additional student achievements: won a place of the first three at national and international competitions and Olympiads in subjects Mathematics or Chemistry or Biology DIRECT ENROLLMENT (1,000 points); won a place of

	the top three in the state Nutri-vita competition: 50 points. All information on enrollment can be found at the following link: http://www.pbf.unizg.hr/upisi/upis_u_preddiplomske_studije
3.4. Language of the study programme	The study programme is conducted in Croatian
3.5. Learning outcomes of the study programme relative to legislative acts, requirements of applicable professional associations, demands of the labour market, possibilities for continuation of education and general social needs (name 15-20 learning outcomes)	The learning outcomes of the study programme were modeled on the Tuning project for Food Studies (http://www.unideusto.org/tuningeu/subject-areas/food-studies.html). Over the last 10 years, teachers have attended numerous workshops dedicated to the continuous improvement of learning outcomes, and within the project "Improvement of study programmes in the biotechnical field according to the principles of the CROQF", the learning outcomes of the subject and study programme as a whole have been improved. Upon completion of the university undergraduate study programme Food Technology, students will be able to: • Apply knowledge and skills from basic, applied and engineering scientific disciplines in the field of food technology. • Practically apply the acquired knowledge and skills from food engineering in the implementation of technological processes of food production and processing. • Identify, analyse and solve simpler problems and perform tasks at an appropriate level of complexity in physico-chemical, microbiological and control laboratories in the food industry. • Apply and integrate the acquired knowledge and skills and thus participate in the production process and food quality control activities. • Plan and assign activities and technologically manage smaller food system production units. • Identify problems in the production and communicate them to the superiors and subordinates. • Collect and interpret the results of laboratory food analyses. • Summarize conclusions based on research results in the field of food technology. • Present in written and oral form the results of one's work using professional terminology. • Work in a homogeneous or interdisciplinary professional team in the field of food technology. • Present contemporary trends in food technology and popularize the profession. • Develop learning skills necessary to continue studying at a graduate level and the awareness of lifelong learning importance. • Apply legislation and ethical principles and standards pertaining to specific requirements of the profession.
3.6. Evaluation of student employability at completion of the study programme, including opinions or official documents from three	It has been shown that since the establishment of the undergraduate study Food Technology at the Faculty of Food Technology and Biotechnology, University of Zagreb (academic year 2005/2006), most of the bachelors of food technology engineers decided to continue their education at the graduate level. However, the new FT study

organizations associated with the labour market (e.g. professional associations or scientific institutions, employers or their associations, unions, public services, etc.) on the suitability of the anticipated learning outcomes to the demands of the labour market	programme offers redefined competencies of the bachelor engineers of food technology, which creates the preconditions for increasing their employability. The following opinions have been attached: 1. Franck d.d. 2. Dukat d.d. 3. Ministry of Agriculture of the Republic of Croatia 4. Croatian Association of Food Technologists, Biotechnologists and Nutritionists, and they all state that the learning outcomes of the undergraduate study programme Food Technology correspond to the needs of their production and other business processes.
3.7. Possibilities of continuing studies at a higher level	Bachelor engineers of food technology, upon completion of the undergraduate study programmed outlined in this document, have the opportunity to continue their studies at the graduate level, not only at the University of Zagreb and other universities in the Republic of Croatia, but also in Europe and around the world.
3.8. Upon submitting proposals for graduate study programmes, name undergraduate studies of the proposer or other institutions in the Republic of Croatia that qualify for admission to the proposed graduate study	-

4. DESCRIPTION OF THE STUDY PROGRAMME	
4.1. List of mandatory and elective courses and/or modules with class hours and ECTS credits (appendix: Table 1)	
4.2. Description of each course (appendix: Table 2)	
4.3. Structure of the study (number of semesters, trimesters, class sizes for lectures and exercises/seminars)	The study is conducted in three years, which is six semesters. Each year has a load of 60 ECTS credits. The majority of ECTS credits is collected through compulsory courses, and electives have 3 ECTS in the 3rd semester, 3 ECTS in the 5th semester and 9 ECTS in the 6th semester. The minimum number of ECTS credits of the programme is 180. The size of groups for lectures, exercises and seminars is determined according to Art.77 of the Collective Agreement for Science and Higher Education (OG 9/2019). Given the planned enrolment quota of 70 students, the Great Lecture Hall (300 seats), Lecture Hall 1 (160 seats), Lecture Hall 2 (86 seats) and Lecture Hall 4 (96 seats) can be used for lectures. For seminars and some forms of exercises (for example, computer exercises), Lecture Hall 3 (49 places), Lecture Hall 5 (44 places) and Lecture Hall 6 (45 places) can be used. Laboratory exercises will be conducted in groups of 10 students in laboratories intended for student exercises, which are distributed across the Departments of FFTB-UniZG.

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4.4. Enrolment requirements for the following semester or trimester	When enrolling into the next semester, students can enrol into only those courses for which they have the requirements according to the study programme and the operational plan.
4.5. List of courses and/or modules offered in a foreign language (which language)	The list of courses of the Faculty of Food Technology and Biotechnology, University of Zagreb, which have been prepared for teaching in English, can be found at the following link: http://www.pbf.unizg.hr/courses_offered_in_english6 Out of those, 4 courses will be taught in the new study programme Food Technology 2. Organic Chemistry, Food Packaging, Process Measurement and Control in Food Engineering and Powder Technology, and over time this number is likely to increase depending on needs and circumstances.
4.6. Completion of the study:	
a. Final requirement for completion of the study	Final thesis ☒ Diploma thesis ☐ Final exam ☐ Diploma exam ☐
b. Requirements for application of final/diploma thesis and/or final/diploma exam	To apply for the final thesis submittal, the students are required to have passed all the exams from the second year of study. The procedure for applying for the final thesis is defined by the Ordinance on the preparation of the final thesis (2008) of the Faculty of Food Technology and Biotechnology, University of Zagreb http://www.pbf.unizg.hr/media/datoteke/pravilnik_o_izradi_zavrsnog_rada
c. Evaluation procedure for final/diploma exam and evaluation and defence procedure for final/diploma thesis	The evaluation procedure of the final thesis is carried out according to the Ordinance on the preparation of the final thesis (2008) of the Faculty of Food Technology and Biotechnology, University of Zagreb. In short, in agreement with the mentor, the student submits the topic of the final thesis (to the Student Office) no later than the beginning of the 6th semester. A loose-leaf copy of the final thesis is submitted to the Expert Committee for Final and Diploma Theses through the student office. Once accepted by the Expert Committee, the thesis is publicly defended before the mentor, the head of studies, and vice-dean for education. After the defence, the mentor evaluates the thesis with a grade on a scale of 1 to 5.

Table 2 Course description - IN A SEPARATE DOCUMENT

Table 3 List of required and elective courses and modules with class hours and ECTS credits –

	POPIS PREDMETA / MODULA								
Year of study: 1									
Semester: I									
MODULE	COURSE	COURSE TEACHER	From n to x semester	L	S	E	e-learni	ECTS	Required /elective

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							ng		
	General chemistry	Damir Iveković	1	30	36	30	5%	8	Required
	Physics	Davor Horvatić	1	45	15	15	5%	6	Required
	Mathematics 1	Marjan Praljak	1	30	30	-	10%	5	Required
	Introduction to Food Technologies	Branka Levaj	1	30	-	-	5%	3	Required
	Communication skills in business and science	Ivana Kmetič	1	20	12	4	5%	3	Required
	Basic Informatics	Ana Vukelić	1	10	-	15	10%	2	Required
	English for Specific Purposes 1	Ana Kovačić	1	10	20	-	<20%	2	Required
	German for Specific Purposes 1	Dijana Njerš	1	10	20	-	<20%	2	Required
	Physical education 1	Neven Karković	1	-	-	30	5%	0,5	Required
Year of study: 1									
Semester: II									
MODULE	COURSE	COURSE TEACHER	From n to x semester	L	S	E	e-learning	ECTS	Required /elective
	Biology	Reno Hrašćan	2	45	9	42	5%	7	Required
	Organic Chemistry	Lidija Barišić	2	30	30	45	5%	7	Required
	Mathematics 2	Julije Jakšetić	2	30	30	-	10%	5	Required
	Analytical chemistry	Ivone Jakaša	2	14	14	36	2%	3	Required
	Principles of engineering	Mirjana Čurlin	2	20	15	5	5%	3	Required
	Principles of Thermodynamics	Mladen Brnčić	2	15	10	10	5%	3	Required
	English for Specific Purposes 2	Dijana Njerš	2	10	20	-	<20%	10	Required
	German for Specific Purposes 2	Dijana Njerš	2	10	20	-	<20%	10	Required
	Physical education 2	Neven Karković	2	-	-	30	5%	0,5	Required
Year of study: 2									
Semester: III									
MODULE	COURSE	COURSE TEACHER	From n to x semester	L	S	E	e-learning	ECTS	Required /elective
	Physical Chemistry	Filip Šupljika	3	30	15	30	20%	6	Required
	Microbiology	Ksenija Markov	3	30	15	40	20%	6	Required

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	Basics of cereal, carbohydrate and confectionery technology	Duška Ćurić	3	40	-	24	10%	5,5	Required
	Transport phenomena	Tomislav Bosiljkov	3	30	15	30	10%	5	Required
	Water Technology	Josip Ćurko	3	20	-	30	20%	4	Required
	Physical Education 3	Lidija Podvalej	3	-	-	30	5%	0,5	Required
	Principles of Biotechnological Food Production	Damir Stanzer	3	20	0	20	5%	3	Elective
	Chemistry and technology of coffee and tea	Draženka Komes	3	20	0	15	5%	3	Elective
	Sweeteners	Draženka Komes	3	20	0	10	5%	3	Elective
	Processing of Olive Fruit	Dubravka Škevin	3	20	0	15	5%	3	Elective
	Technology of ice cream and dairy deserts	Katarina Lisak Jakopović	3	18	5	10	10%	3	Elective
	Technological procedures for food waste and by-products processing	Mladen Brnčić	3	16	14	0	5%	3	Elective
Year of study: 2									
Semester: IV									
MODULE	COURSE	COURSE TEACHER	From n to x semester	L	S	E	e-learning	ECTS	Required /elective
	Biochemistry 1	Vladimir Mrša	4	30	15	26	10%	7	Required
	Basic of technology of fruit, vegetable and wine	Branka Levaj	4	40	-	24	10%	5,5	Required
	Physical properties of food	Anet Režek Jambrak	4	30	15	15	5%	5	Required
	Unit operations	Damir Ježek	4	30	15	30	5%	5	Required
	Statistics	Julije Jakšetić	4	30	20	10	10%	5	Required
	Legislation in Food production	Mara Banović	4	18	0	16	5%	2	Required
	Physical Education 4	Lidija Podvalej	4	-	-	30	5%	0,5	Required
Year of study: 3									
Semester: V									
MODULE	COURSE	COURSE TEACHER	From n to x semester	L	S	E	e-learning	ECTS	Required /elective
	Basics of meat, fish, milk, oil and fat technologies	Helga Medić	5	60	-	36	10%	8	Required

DETAILED PROPOSAL OF THE STUDY PROGRAMME

	Biochemistry 2	Renata Teparić	5	45	13	-	10%	7	Required
	Food Process Engineering	Zoran Herceg	5	30	30	45	5%	6	Required
	Food Preservation Processes	Zoran Herceg	5	30	15	15	5%	5	Required
	Principles of Biotechnological Food Production	Damir Stanzer	5	20	0	20	5%	3	Elective
	Chemistry and technology of coffee and tea	Draženka Komes	5	20	0	15	5%	3	Elective
	Sweeteners	Draženka Komes	5	20	0	10	5%	3	Elective
	Processing of Olive Fruit	Dubravka Škevin	5	20	0	15	5%	3	Elective
	Technology of ice cream and dairy deserts	Katarina Lisak Jakopović	5	18	5	10	10%	3	Elective
	Technological procedures for food waste and by-products processing	Mladen Brnčić	5	16	14	0	5%	3	Elective
	Traditional cheeses – production and quality	Irena Barukčić	5	18	5	14	10%	3	Elective
	Seafood processing	Sanja Vidaček Filipec	5	20	6	14	10%	3	Elective
	Food industries wastewater treatment	Tibela Landeka Dragičević	5	20	0	20	5%	3	Elective
	Methods of mechanical testing of variety foodstuff properties	Tomislav Bosiljkov	5	15	5	15	10%	3	Elective
Year of study: 3									
Semester: VI									
MODULE	COURSE	COURSE TEACHER	From n to x semester	L	S	E	e-learning	ECTS	Required /elective
	Analysis of Food Products	Ksenija Marković	6	20	-	45	10%	5	Required
	Food Microbiology	Jadranka Frece	6	25	12	26	20%	5	Required
	Food Packaging	Kata Galić	6	25	-	15	5%	4	Required
	Process Measurement and Control in Food Engineering	Davor Valinger	6	22	3	21	10%	3	Required
	Practice and final thesis		6	-	-	75		5	Required
	Non-Alcoholic Refreshing Beverages	Branka Levaj	6	20	0	15	5%	3	Elective
	Technology of snack products and breakfast cereals	Nikolina Čukelj Mustač	6	20	5	10	5%	3	Elective

	Powder technology	Maja Benković	6	20	8	2	15%	3	Elective
	Minimally Processed Fruits and Vegetables	Branka Levaj	6	20	15	0	5%	3	Elective
	Spices and Aromatic Plants	Verica Dragović-Uzelac	6	20	0	15	5%	3	Elective
	Production of Strong Spirit Beverages	Jasna Mrvčić	6	13	0	25	5%	3	Elective
	Basics of organic food production	Dubravka Novotni	3	20	6	9	5%	3	Elective
	Technology of Honey and Bee Products	Nada Vahčić	3	20	0	15	10%	3	Elective
	Production and quality of dry-cured hams	Nives Marušić Radovčić	3	20	9	6	10%	3	Elective
	Fruit wines	Mara Banović	3	20	5	12	5%	3	Elective
	English for Specific Purposes 3	Dijana Njerš	3	10	23	0	<20%	3	Elective