

Bachelor of Engineering (BEng.)

FOOD, GASTRONOMY

AND TOURISM (FGT)

**Beginning of studies
from WS 2025/2026**

MODULE HANDBOOK



Version 03/06-25

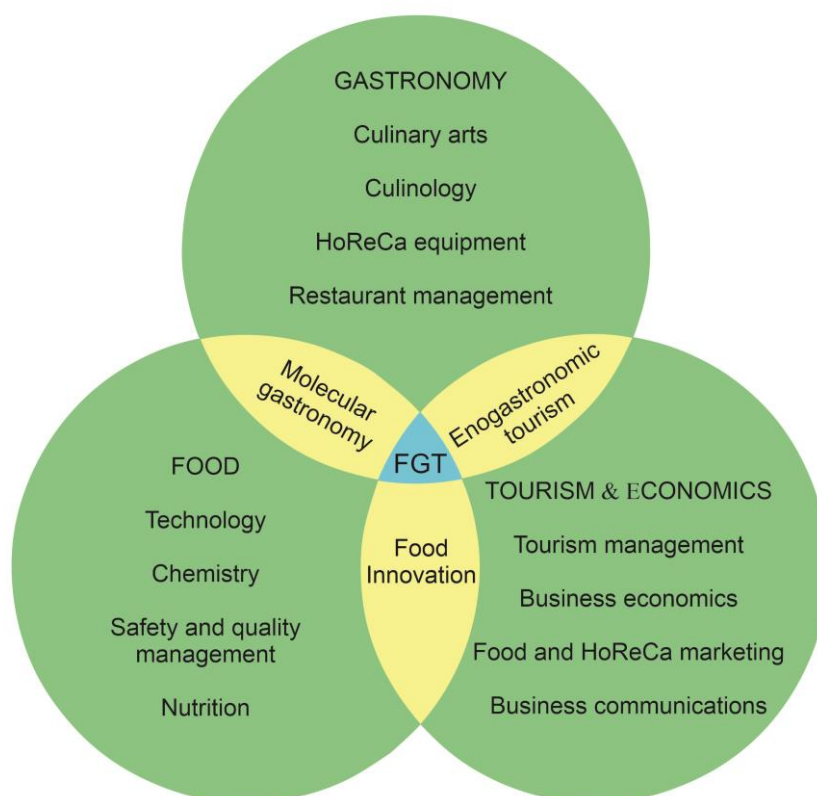


**UNIVERSITY OF
FOOD TECHNOLOGIES
PLOVDIV**

INTRODUCTION

Study programme objectives:

- ✓ **Understand** different areas of food science, including technology, chemistry and nutrition, to develop a transdisciplinary understanding of culinary arts and gastronomic tourism.
- ✓ **Integrate** a systemic view of all actors in the food supply chain, including social, cultural, economic and environmental aspects, to understand the global impact of food, culinary and tourism industries.
- ✓ **Apply** technical skills in quality evaluation, research projects, product design, management and other knowledge-based areas of food, gastronomy and tourism.



Career opportunities:

- ✓ **Executive Chef / Gastronomic manager** in the food, catering or tourism industry.
- ✓ **F&B manager.**
- ✓ **Research Chef / New product development manager.**
- ✓ Professional consultant in food and innovation.
- ✓ Business operations manager.
- ✓ Food quality manager.
- ✓ Director of food control laboratories.

CURRICULUM

Semester	Modules					
1	Food and Beverage Quality Specifications	Introduction to Food and Culinary Innovations	Computer Skills and Information Technologies	Specialized English	Introductory Practice	Sport
2	Food Safety and Hygiene	Culinary Techniques and Processes	Introduction to Chemistry		Sport	
3	Culinology	HoReCa Equipment	Food Chemistry and Biochemistry	Applied Mathematics and Statistics	Optional	
4	Food and Beverage Sensory Analysis	International Gastronomy	Culinary Innovations and Molecular Gastronomy	Business Economics		
5	Engineering Systems in Food and HoReCa	Plant-derived Foodstuffs Technology	Chocolate Products and Fats Technology	Food Additives and Dietary Supplements	Pastry Products Technology	
6	Animal-derived Foodstuffs Technology	Beverage Technology	Food Quality Management	Food, Culinary Heritage and Tourism	Food and HoReCa Marketing	
7	Restaurant Design and Organization	Tourism Management	Elective			
8	Enogastronomic Tourism	Business Communications	Ecology and Environmental Management	Practical Internship	Diploma Thesis	
			Tourism /			
	Food	Gastronomy	Economics		General education	

PROFESSIONAL MODULES

1st Semester

Module Name	Introduction to Food and Culinary Innovations	
Code	10.80	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. K. Mihalev	
Educational Outcomes, Competencies, Qualification	Students <ul style="list-style-type: none"> • know the stages of food product development • are able to generate and evaluate new product ideas • are able to develop and evaluate product concepts • are able to consider nutritional aspects and to apply functional food ingredients in food product development • are able to work in project groups 	
Module Content	Topics	Lecturers
	Practical case study 1: Fruit products (Chia pearl jelly)	Assoc. Prof. K. Mihalev Asst. Prof. K. Vassilev
	Practical case study 2: Dairy products (Dairy desserts with encapsulated biologically active compounds)	Assoc. Prof. M. Ivanova
	Practical case study 3: Meat products (Functional meat products)	Prof. S. Dragoev
	Practical case study 4: Pastry products (Muffins with rose petal by-product)	Assoc. Prof. R. Chochkov
	Practical case study 5: Innovation in beer production (Beer matured with coconut)	Asst. Prof. P. Nedyalkov
	Practical case study 6: Sugar products (Hard candy with isomalt)	Asst. Prof. R. Hadjikinova
Examination	Group project	
Literature	Gilbert, K. & Prusa, K. (2021). Food product development. Ames, IA: Iowa State University Digital Press. DOI: https://doi.org/10.31274/isudp.2021.66	

PROFESSIONAL MODULES

Module Name	Food and Beverage Quality Specifications	
Code	10.81	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. K. Mihalev	
Educational Outcomes, Competencies, Qualification	Students <ul style="list-style-type: none"> • know the various food product categories and sub-categories • explain recent developments and future trends in the food and beverage sector • are aware of the crucial factors affecting food quality • are able to formulate their own food product specification 	
Module Content	Topics	Lecturers
	Fruit and vegetable products	Assoc. Prof. K. Mihalev
	Dairy products	Assoc. Prof. T. Balabanova
	Meat and fish products	Prof. S. Dragoev
	Bread and confectionery products	Assoc. Prof. R. Chochkov
	Beverages (wine, beer, soft drinks)	Assoc. Prof. N. Stoyanov Assoc. Prof. V. Shopska
	Coffee, cocoa and chocolate	Asst. Prof. R. Hadjikinova
Examination	Written examination (test questions)	
Literature	Obreshkov I., Terzieva V. (2013). Quality Control of Food and Beverages, UFT Academic Publishing House, Plovdiv, ISBN 978-954-24-0219-0.	

PROFESSIONAL MODULES

2nd Semester

Module Name	Culinary Techniques and Processes	
Code	35.46	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. K. Nikovska	
Educational Outcomes, Competencies, Qualification	Students <ul style="list-style-type: none">• know the main periods in the development of culinary arts, the trends in food and nutrition, and their influence on culinary practices• know the main stages of the technological process for preparing culinary products and the tools used in the kitchen.• are able to perform the preliminary processing of plant and animal food products and will practice various cutting techniques.• acquire knowledge and skills regarding the mechanical and thermal, chemical, and biochemical processes in culinary arts and the changes that occur in food as a result of these processes• are able to work in project groups	
Module Content	Topics	Lecturers
	Tools and equipment. Main cutting techniques and their specific culinary purposes	Assoc. Prof. K. Nikovska Assoc. Prof. S. Stankov
	Basic principles of cooking and food science. Heat and food – heat transfer and heat management; cooking methods.	
	Mise en Place. Planning and organizing production.	
	Building flavor profiles. Seasoning and flavoring ingredients. Using herbs and spices.	
	Stocks - Ingredients, procedures, convenience bases. Sauces - sauce types, production.	
Examination	50 % - assessment of performance during practical exercises and 50% - written examination (test questions)	
Literature	Kumar, S. A Textbook for Culinary Education. A Practical Guide for Hotel Management Students, Notion Press, 2023 Gisslen, W. Professional cooking, Seventh edition, John Wiley & Sons, Inc., 2011	

PROFESSIONAL MODULES

Module Name	Food Safety and Hygiene	
Code	35.47	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. H. Fidan	
Educational Outcomes, Competencies, Qualification	<p><u>Educational Outcomes</u></p> <ul style="list-style-type: none"> • Understanding of Food Safety Principles • Knowledge of Hazard Analysis and Critical Control Points (HACCP) • Familiarity with Foodborne Diseases and Prevention • Regulatory Awareness- Learn about global, regional, and local food safety regulations and standards (e.g., FDA, EFSA). • Food Safety Management Systems <p><u>Core Competencies</u></p> <ul style="list-style-type: none"> • Risk Assessment and Management • Implementation of Sanitation Procedures • Problem Solving and Decision Making • Communication of Food Safety Standards • Monitoring and Inspection Skills • Data Collection and Reporting: <p><u>Qualifications</u></p> <ul style="list-style-type: none"> • Compliance with Food Safety Legislation • Hands-On Experience -practical experience in real-world scenarios, applying food safety and hygiene techniques in kitchens, restaurants, and food industries. • Proficiency in Food Handling Standards • Knowledge of Cross-Contamination Prevention 	
Module Content	Topics	Lecturers
	INTRODUCTION TO FOOD SAFETY AND HYGIENE. Definition and importance of food safety. Overview of foodborne illnesses and outbreaks. Introduction to food hygiene regulations and guidelines	Assoc. Prof. H. Fidan
	FOODBORNE HAZARDS AND CONTAMINATION. Types of foodborne hazards: biological, chemical, and physical. Sources of	

	contamination: raw materials, handling, storage. Preventive measures for foodborne illnesses.	
	THE HACCP SYSTEM. Introduction to Hazard Analysis and Critical Control Points (HACCP). Steps in developing a HACCP plan.	
	PERSONAL HYGIENE AND SANITATION IN THE KITCHEN. Personal hygiene practices for food handlers. Kitchen sanitation: equipment and surface cleaning, dishwashing protocols. Pest control and waste management.	
	FOOD STORAGE AND TEMPERATURE CONTROL. Safe food storage techniques: FIFO (First In, First Out), temperature zones, and labeling.	
	FOOD HANDLING AND PREPARATION. Safe food handling: raw vs. cooked foods, cross-contamination prevention. Allergen management and food safety considerations for special diets.	
	FOOD SAFETY REGULATIONS AND COMPLIANCE. Overview of food safety laws: international, national, and local regulations.	
Examination	Written examination (test questions)	
Literature	<ol style="list-style-type: none">1. Mariot, N., Schilling, M.W., Gravani, R.B. Principles of Food Sanitation, Springer International Publishing AG, part of Springer Nature 2018, ISSN 1572-0330 ISSN 2214-7799 (electronic) Food Science Text Series2. National Restaurant Association, ServSafe Coursebook, 1-8th Editions, Textbook	

PROFESSIONAL MODULES

3rd Semester

Module Name	Culinology	
Code	35.06	
Number of Credits	7	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. S. Stankov	
Educational Outcomes, Competencies, Qualification	<p>Students will get:</p> <ul style="list-style-type: none"> - Theoretical Knowledge: <ul style="list-style-type: none"> • Understanding of processing techniques. • Knowledge of culinary techniques, ingredient functionality, and sensory evaluation. • Awareness of food safety regulations, nutrition, and sustainability. - Practical Skills: <ul style="list-style-type: none"> • Ability to apply culinary techniques to food product development. • Use of scientific principles in recipe formulation and food preservation. • Proficiency in modern kitchen and laboratory equipment for food analysis. - Analytical and Problem-Solving Skills: <ul style="list-style-type: none"> • Developing creative solutions for food innovation. • Conducting experiments and interpreting sensory and quality control data. • Assessing the impact of ingredients, processing, and packaging on food quality. 	
Module Content	Topics	Lecturers
	<p>Culinology</p> <ul style="list-style-type: none"> • General Concepts in Culinology • Organization of Culinary Production • Economic Management of the Kitchen • Menu Theory • Basic Technological Processes in Culinology • Technology of Dishes with Vegetables and Fruits • Methods of technological processing of dishes • Poaching and confiting • Quality of culinary production 	<p>Assoc. Prof. S. Stankov Assoc. Prof. H. Fidan</p>

	<p>Technology of Dishes with Cereals and Legumes</p> <ul style="list-style-type: none"> • Technology of dishes with cereals, pseudocereals, and legumes • Quality of culinary production <p>Technology of Dishes with Dairy Products and Eggs</p> <ul style="list-style-type: none"> • Application of conventional and unconventional processing methods • Quality of the final culinary product <p>Technology of Dishes with Fish, Seafood, and Non-Fish Products</p> <ul style="list-style-type: none"> • Technology of dishes with fish and seafood • Saltwater and freshwater products in culinology • Quality of culinary products from fish, aquaculture, and seafood <p>Technology of Dishes with Meat and Poultry</p> <ul style="list-style-type: none"> • Technology of dishes with meat from large ruminants, small ruminants, and pigs • Techniques and technologies for preparing meat and poultry dishes • Degree of culinary readiness • Quality of culinary production <p>Technology of Dishes with Offal and Game Meat</p> <ul style="list-style-type: none"> • Techniques and technologies for preparing dishes with offal and game meat • Quality of culinary production <p>Spices and Food Additives for Technological Purposes</p> <ul style="list-style-type: none"> • Application of natural and synthetic aromatic products in culinology • Conditions for application • Additives for technological purposes in culinology <p>Technology of Restaurant Desserts</p> <ul style="list-style-type: none"> • Basic processes in the production of restaurant desserts • Technology of mousses and ganaches • Restaurant dessert design • Quality of restaurant desserts <p>Dish Design</p> <ul style="list-style-type: none"> • Food taste and aroma • Fusion techniques for presentation 	
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Examination	30% - assessment of performance during practical exercises and 70% - written examination
Literature	<p>[1] Myhrvold, N. (2023). Modernist cuisine. The coking lab, 1-463.</p> <p>[2] Lopez, K. (2017). The Food Lab: Better Home Cooking Through Science. 1-3020.</p> <p>Additional References:</p> <p>[1] McGee, H. (2004). On food and cooking. The Science and Lore of the Kitchen ISBN: 1-4165-5637-0.</p> <p>[2] https://myfoodbook.com.au/sites/default/files/ebook_file/Dessert%20Lovers%20Foodbook%202016.pdf</p> <p>[3] http://www.indian-cooking.info/EBooks/Cakes-Desserts.pdf</p> <p>[4] https://www.sihmbalangir.org/upload/Cakes%20&%20Pastries%20Book.pdf</p>

PROFESSIONAL MODULES

Module Name	HoReCa Equipment	
Code	35.48	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. R. Mihov	
Educational Outcomes, Competencies, Qualification	Students will know: <ul style="list-style-type: none">• The structure, working principle and operating rules of professional kitchen equipment Students will be able to: <ul style="list-style-type: none">• Use professional kitchen equipment• Make the right choice of suitable professional kitchen equipment for different technological processes and operations. Students will have competencies to: <ul style="list-style-type: none">• Deal with a variety of problems and make independent decisions related to HORECA equipment	
Module Content	Topics	Lecturers
	Food preparation equipment. Structure, operation principles. Rules of operation.	Assoc. Prof. R. Mihov
	Cooking equipment. Structure, principle of operation. Rules of operation.	
	Dishwashing equipment. Structure, principle of operation. Rules of operation.	
	Refrigeration equipment. Structure, principle of operation. Rules of operation.	
Examination	50% - assessment of performance during practical exercises and 50% - written examination (test questions)	
Literature	Thomas Ch., E. J. Norman, C. Katsigris, Design and Equipment for Restaurants and Foodservice, John Willey & Sons Inc., Canada, 2014.	

PROFESSIONAL MODULES

Module Name	Food Chemistry and Biochemistry	
Code	03.30	
Number of Credits	3	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. A. Slavov	
Educational Outcomes, Competencies, Qualification	<p>Students will:</p> <ul style="list-style-type: none"> • Learn how to use the basic language of food chemistry and biochemistry competently and provide real examples. • Relate the chemical structures of major food components to nutritive and qualitative properties of food systems. • Understand chemical reactions and interactions with other food components and differentiate their effects on the sensory and nutritional properties of food. • Interpret chemical and biochemical transformations which occur during storage and food processing with respect to food quality and nutrient composition. 	
Module Content	Topics	Lecturers
	<p>Food Chemistry: Carbohydrates and lipids participation in food processes. Major chemical reaction groups in food processes. Development of food aroma and identification of aromatic compounds. Non-enzymatic browning reactions.</p>	Assoc. Prof. A. Slavov
	<p>Food Biochemistry: Chemical structure and biological value of food proteins. Plant and animal proteins - inter-component interactions. Biochemical changes in raw materials and food products during storage. Application of enzymes in food production.</p>	Assoc. Prof. V. Chalova
Examination	80 % - Final written examination (test questions) 20% - Test question assessment during practical exercises	
Literature	Belitz H., Grosch W., Schieberle, P., Food Chemistry (4 th Edition), Springer –Verlag, Berlin 2009. O. Fenema, Food Chemistry (3 rd Edition), Marcel Drekker, INC, New York, Basel, 1996. Lehninger principles of biochemistry. 3 rd edition. 2003. Nelson D.L., Cox M.M. (Eds.) Worth Publishers, New York, NY Proteins in food processing. 2004. Yada R. Y. (Ed.) Woodhead Publishing Limited and CRC Press LLC	

PROFESSIONAL MODULES

4th Semester

Module Name	International Gastronomy	
Code	35.50	
Number of Credits	7	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. H. Fidan	
Educational Outcomes, Competencies, Qualification	<p>Students will get:</p> <ol style="list-style-type: none"> 1. Global Culinary Traditions – Understanding the history, cultural significance, and evolution of gastronomy in different regions of the world. 2. International Ingredients and Flavors – Identifying and using diverse ingredients, spices, and seasonings from various culinary traditions. 3. Cooking Techniques from Around the World – Mastering traditional and modern cooking methods, such as French haute cuisine, Asian stir-frying, Middle Eastern grilling, and Latin American ceviche preparation. <p><i>Skills Developed:</i></p> <ol style="list-style-type: none"> 1. Culinary Techniques – Proficiency in preparing and presenting international dishes with professional techniques. 2. Menu Design and Recipe Development – Ability to create globally inspired menus that cater to diverse audiences. 3. Sensory Analysis – Developing skills in evaluating texture, taste, aroma, and presentation of global cuisines. 4. Creativity and Innovation – Experimenting with new flavors, techniques, and fusion concepts in gastronomy. 5. Kitchen Management – Organizing kitchen operations, workflow, and team coordination in an international culinary setting. 	
Module Content	Topics	Lecturers
	<ul style="list-style-type: none"> - Balkan Cuisine – Bulgarian, Turkish, Albanian, Serbian. General characteristics, technology, and quality of culinary production. - Mediterranean Cuisine – Greek, Italian, Spanish. General characteristics, technology, and quality of culinary production. - Asian Cuisine – Chinese, Indian, Japanese. General characteristics, technology, and quality of culinary production. 	Assoc. Prof. S. Stankov Assoc. Prof. H. Fidan

	<ul style="list-style-type: none"> - European Cuisine – French, Austrian, Scandinavian, Russian. General characteristics, technology, and quality of culinary production. - African and Australian Cuisines – Tunisian, North African, New Zealand. General characteristics, technology, and quality of culinary production. - North and South American Cuisines – Canadian and Mexican. General characteristics, technology, and quality of culinary production. 	
Examination	30% - assessment of performance during practical exercises and 70% - written examination	
Literature	<p>References: Michael, F. Nenes (2009). International cuisine. Published by John Wiley & Sons, Inc., Hoboken, New Jersey. ISBN 978-0-470-05240-2 (cloth) ISBN 978-0-470-41076-9 (custom).</p> <p>Additional References: https://www1.agric.gov.ab.ca/\$Department/deptdocs.nsf/all/4h7895/\$FILE/ExploringInternationalCuisineRB.pdf https://www.ihmnotes.in/assets/Docs/Sem6/FOOD%20PRODUCTION%20OPERATIONS/Ch1%20Internation%20Cuisine.pdf </p>	

PROFESSIONAL MODULES

Module Name	Culinary Innovations and Molecular Gastronomy	
Code	35.49	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. K. Mihalev	
Educational Outcomes, Competencies, Qualification	<p>Students</p> <ul style="list-style-type: none"> • understand the chemistry and physics of cooking processes • are able to assess the factors affecting food physical stability • know the chemical nature of the hydrocolloids and their functional properties • are able to improve performance of hydrocolloids when used in food technology or professional cooking 	
Module Content	Topics	Lecturers
	<p>Part I. INTRODUCTION TO FOOD COLLOID AND SURFACE CHEMISTRY</p> <p>1. Solutions. Water activity, osmotic pressure, sorption isotherm. Phase transitions of water in foods.</p> <p>2. Dispersion systems and microstructure of food; particle size distribution. Colloidal solutions and dispersions: interactions, miscibility and phase separation; gel formation.</p> <p>3. Surface properties: wettability; emulsifiers and emulsions; foams.</p>	<p>Assoc. Prof. V. Gandova Asst. Prof. I. Ivanova</p>
	<p>Part II. FOOD AND CULINARY APPLICATIONS OF HYDROCOLLOIDS</p> <p>4. Plant-derived gums. Starches. Natural exudates (Gum Arabic / Gum Acacia). Cellulose gums (Microcrystalline Cellulose, Sodium Carboxymethylcellulose). Seed gums (Locust Bean Gum, Guar Gum). Pectins.</p> <p>5. Seaweed-derived gums. Red Seaweed Extracts (Agar, Carrageenan). Brown Seaweed Extracts (Alginates).</p> <p>6. Biosynthetic gums (Xanthan, Curdlan).</p>	<p>Assoc. Prof. K. Mihalev Asst. Prof. K. Vassilev</p>
Examination	Written examination (test questions)	
Literature	<p>Nussinovitch, A. & Hirashima, M. (2014). Cooking Innovations – Using Hydrocolloids for Thickening, Gelling, and Emulsification. Boca Raton, FL: CRC Press.</p> <p>Walstra, P. (2003). Physical Chemistry of Foods. New York: Marcel Dekker.</p>	

PROFESSIONAL MODULES

Module Name	Food and Beverage Sensory Analysis	
Code	35.51	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. Iv. Petrova	
Educational Outcomes, Competencies, Qualification	<p>Students</p> <ul style="list-style-type: none"> • know the type and importance of human perceptions as a tool for assessing the different characteristics of quality for foods and drinks • know the main factors influencing sensory perceptions during the sensory assessment sessions • acquire knowledge, methods, techniques and skills applied in qualitative and quantitative assessment of sensory characteristics for different culinary products • are able to measure human hedonic responses to food and drinks • are able to create the sensory profiles of foods and drinks • are able to work as a panelist in sensory evaluation of foods and drinks 	
Module Content	Topics	Lecturers
	<p>Sensory perceptions and human senses (vision, gustatory, olfaction, touch and audition)</p> <p>Factors (psychological and physiological) affecting sensory measurements</p> <p>Basic principles of discriminative methods for sensory assessment of foods and drinks</p> <p>Types of descriptive methodology, tests and scales</p> <p>Questionnaire design in consumer researches</p> <p>Requirements and planning the sensory testing sessions</p>	Assoc. Prof. Iv. Petrova
Examination	50% - assessment of performance during practical exercises and 50% - written examination (test questions)	
Literature	<p>Kemp, S.E, T. Hollowood, J. Hort, Sensory Evaluation: A Practical Handbook, Wiley-Blackwell, 2011</p> <p>Petrova, I. Sensory analysis of foods and drinks: theoretical foundations and psychophysiology of sensory perception, Macros, 2023</p>	

PROFESSIONAL MODULES

5th Semester

Module Name	Chocolate Products and Fats Technology	
Code	15.54	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. G. Uznova	
Educational Outcomes, Competencies, Qualification	Students <ul style="list-style-type: none">• know the technology of pressing of seeds;• know the method for oil extraction of seeds;• know the refining methods of oils;• know analysis of the physicochemical parameters of oil-yielding raw materials and vegetable oils;• acquire knowledge about the botanical characteristics of cocoa as a raw material for the production of cocoa and chocolate products;• know the basic technological processes in the production of cocoa and chocolate products;• are able to work in groups.	
Module Content	Topics	Lecturers
	Methods of pressing of seed.	Assoc. Prof. G. Uzunova Chief assistant R. Hadjikinova
	Solvent extraction.	
	Physical and chemical refining.	
	Analysis of vegetable oils.	
	Cocoa beans as a raw material. Botanical characteristics. Types and varieties. Primary processing.	
	Principle technological scheme for the production of cocoa and chocolate products.	
	Technology of chocolate masses. Types. Normative requirements for the composition - Bulgarian and European legislation.	
Examination	50% - assessment of performance during practical exercises and 50% - written examination (test questions)	
Literature	O’Brien D., E. Far, P. Wan (2003), Introduction of Fats and Oils Technology, Part 1 , Second Edition, Chapter 2, 474 - 475. 1. Beckett S., (2009), Industrial chocolate manufacture and use, Formerly Nestlé PTC York, UK, Blackwell Publishing. Minifie B., (1989), Chocolate, cocoa, and confectionery: science and technology, Ana VI Book Published by Van Nostrand Reinhold, New York.	

PROFESSIONAL MODULES

Module Name	Pastry Products Technology	
Code	12.93	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. R. Chochkov	
Educational Outcomes, Competencies, Qualification	Students <ul style="list-style-type: none">• the specific changes that occur in raw materials during their processing using various technologies,• process management,• methods for obtaining semi-finished pastry products and the principles of combining them into a final product,• the changes leading to changes in the quality and nutritional value of finished pastry products during storage.	
Module Content	Topics	Lecturers
	Kneading and forming of specific pastry doughs – processes.	Assoc. Prof. V. Chonova, Assoc. Prof. R. Chochkov, Assis. D. Genev, PhD
	Methods for forming pastry dough – processes and changes in the dough.	
	Heat treatment of pastry dough.	
	Technologies of different types of pastry bases. Technologies of pastry semi-finished products for forming – toppings, fillings, garnishes and decorations.	
	Shelf life of pastry products – processes and changes.	
Examination	50% - assessment of performance during practical exercises and 50% - written examination (test questions)	
Literature	Chlebana A. R. (2017) The Advanced Art of Baking and Pastry, Wiley, 496 pp. Jan K. (2022), Bakery and Confectionery Technology Hardcover – Edition by Publisher: NEW INDIA PUBLISHING AGENCY (NIPA), 282 pages, ISBN-10:9394490515, ISBN-13:978-9394490512. The Culinary Institute of America (CIA) (2015), Baking and Pastry: Mastering the Art and Craft, 3rd Edition, ISBN: 978-0-470-92865-3, 1136 pages. Vine Fr. T., (2012) “Practical Pastry: A Handbook For Pastrybakers, Cooks And Confectioners, 232 pp.	

PROFESSIONAL MODULES

Module Name	Plant-derived Foodstuffs Technology	
Code	10.82	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Asst. Prof. K. Vassilev	
Educational Outcomes, Competencies, Qualification	Students <ul style="list-style-type: none">• explain recent developments and future trends in the fruit and vegetable processing sector• understand basic principles and processes in technology of different fruit and vegetable products• describe basic concepts and methods for food preservation and understand their relation to food safety and quality• design and perform experiments applying the above theoretical knowledge	
Module Content	Topics	Lecturers
	Processed fruits and vegetables – classification and definitions.	Asst. Prof. K. Vassilev
	Fruit/vegetable morphology and composition. Factors influencing quality.	
	Fruit and vegetable processing. General unit operations.	
	Product-specific unit operations: fruit juice; fruit jam.	
	Food preservation by high temperatures: definitions; principles; process design, control and optimization.	
	Food preservation by low temperatures: cold chain; quality and safety of chilled and frozen foods.	
	Food preservation by low water activity: definitions; principles; methods.	
	Novel non-thermal methods for food preservation. Combined methods.	
Examination	Written examination (test questions)	
Literature	Dauthy, M.E. (1995). Fruit and Vegetable Processing - FAO Agricultural Services Bulletin No. 119. FAO, Rome, Italy. http://www.fao.org/docrep/V5030e/v5030e00.HTM . Rahman, M. S. (Ed.) (2007). Handbook of Food Preservation (2 nd ed.). Taylor & Francis Group, Boca Raton, FL.	

PROFESSIONAL MODULES

6th Semester

Module Name	Beverage technology	
Code	14.37	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. N. Stoyanov	
Educational Outcomes, Competencies, Qualification	Students <ul style="list-style-type: none">• know the main raw materials for the production of wine, beer, spirits and soft drinks• know the main stages of the technological process for the production of wine, beer, spirits and soft drinks.• are able to determine and interpret the main parameters of raw materials, the technological processes and the final products.• are able to work in project groups	
Module Content	Topics	Lecturers
	Wine production – raw materials composition and technological stages in the production of white, rose and red wines.	Assoc. Prof. N. Stoyanov Assoc. Prof. V. Shopska
	Spirits – technological stages in the production of grape-based spirits	
	Beer production - raw materials and technological stages in the production of beer.	
	Soft drinks – classification, raw materials and technological stages in the production of soft drinks.	
Examination	30% - assessment of essay preparation and 70% - written examination (test questions)	
Literature	Joshi, V. K., Concise Encyclopedia of Science and Technology of Wine, Taylor & Francis Group, LLC 2022, ISBN: 978-1-138-09275-4 Tamang JP, Kailasapathy K. Fermented Foods and Beverages of the World, 2010, CRC Press, New York; Mujtada IM. Batch distillation. Design and operation., 2004, IC Press, UK Farber, M., & Barth, R. <i>Mastering brewing science: Quality and production</i> . 2019. John Wiley & Sons. Stewart, G. G., Russell, I., & Anstruther, A. Handbook of brewing. 2017. CRC Press. Shachman, M. The soft drinks companion: a technical handbook for the beverage industry. 2004. CRC Press.	

PROFESSIONAL MODULES

Module Name	Animal-derived Foodstuffs Technology	
Code	09.79	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. Petya Boyanova	
Educational Outcomes, Competencies, Qualification	<p>Students:</p> <ul style="list-style-type: none"> • acquire knowledge concerning the fundamentals of meat and milk science, processing, storage, food safety, and quality standards; • can demonstrate proficiency in the production of meat products such as sausages, ham, dry-fermented and canned meats, and also milk products like cheese, yogurt, butter, and ice cream. • develop innovative dairy- or meat-based products that align with current market trends, dietary preferences, and consumer demands. • acquire knowledge of food additives and their role in animal products' processing; • obtain analytical and practical knowledge about the chemical composition and nutritional value of all animal products and their effects on human health. 	
Module Content	Topics	Lecturers
	Overview of the dairy industry: importance and market trends. Types of milk and their characteristics (cow, goat, sheep, buffalo). Composition and properties of milk (proteins, fats, carbohydrates, vitamins, minerals).	Assoc. Prof. Petya Boyanova, Assoc. Prof. Desislava Vangelova-Vlahova
	Tissues in the body of slaughter animals and fish. Proximate composition of muscle and connective tissue. Chemistry of meat colour, texture and aroma.	
	Milk production and processing: milk collection, transportation, and storage practices; mechanical and heat treatment of milk; and quality control and food safety measures in milk processing.	
	Transportation and pre-slaughter treatment of animals. Qualification and cutting carcass meat from slaughtered	

	animals along anatomical and topographic boundaries.	
	Dairy product technologies: cheese technology, yogurt and fermented dairy products, butter and cream production, and frozen dairy products.	
	Classification of the main types of groups of meat products. Nutritional value and biological value of meat products	
	Dairy product innovation and market trends: functional dairy products (probiotic, high-protein, lactose-free). Use of food additives in dairy (stabilizers, emulsifiers, sweeteners, flavor enhancers).	
	Types of meat raw materials and basic requirements for them. Additives for the production of meat products. Factors influencing the technological properties of meat raw materials	
	Chemical composition and nutritional aspects of dairy products. Dietary benefits and health effects of dairy consumption. Dairy-related allergies and intolerances (lactose intolerance, casein sensitivity).	
	Development of functional meat products, varieties, and health benefits. Basics of research and development of novel meat products.	
Examination	50% - assessment of performance during practical exercises and 50% - written examination (test questions)	
Literature	<p>Hui, Y.H., Dairy Science and Technology Handbook: Principles and Properties, 2006, Wiley-VCH, Inc., ISBN: 978-0-470-12706-3.</p> <p>Hui, Y. H. (Ed.). (2012). Handbook of meat and meat processing. CRC press.</p> <p>Hui, Y. H. (2010). Handbook of Poultry Science and Technology, Primary Processing (Vol. 1). John Wiley & Sons.</p> <p>King, D. A., Hunt, M. C., Barbut, S., Claus, J. R., Cornforth, D. P., Joseph, P., ... & Weber, M. (2023). American Meat Science Association guidelines for meat color measurement. Meat and Muscle Biology, 6(4).</p> <p>Ramesh C. Chandan, Arun Kilara, Nagendra P. Shah, Dairy Processing and Quality Assurance, 2008, John Wiley & Sons, Inc., ISBN: 978-0-813-82756-8</p> <p>Saarela, M. (Ed.). (2011). Functional foods: Concept to product. Elsevier.</p>	

PROFESSIONAL MODULES

Module Name	Food Quality Management	
Code	10.84	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. R. Dinkova-Hadzhiyski	
Educational Outcomes, Competencies, Qualification	<p>This module aims to give a comprehensive introduction to food quality management. On successful completion the student will be able to:</p> <ul style="list-style-type: none"> • Understand basic principles and processes in quality management • Describe basic concepts for quality, supply and demand chain and understand the main principles of quality management and the role of interested parties. • Study related disciplines such as Food and Beverage Quality Specifications, Food Safety and Hygiene, Consumer Behavior and Marketing. • Design product quality and perform knowledge-based decisions in planning, control and optimization of processes. 	
Module Content	Topics	Lecturers
	Introduction to quality management: <ul style="list-style-type: none"> o Quality in the agri-food chain o Quality – concept and definition 	Assoc. Prof. R. Dinkova-Hadzhiyski
	Quality: <ul style="list-style-type: none"> o Quality perception o Quality attributes o Factors influencing wine quality 	
	Quality management <ul style="list-style-type: none"> o Management – decision-making concept o Techno-managerial approach o Quality management activities o Quality behavior 	
	Quality design <ul style="list-style-type: none"> o Quality design process o Product design variables o Process design variables o Tools 	
	Quality control <ul style="list-style-type: none"> o Quality control activities o Tools and methods 	

	Quality improvement o Activities o Tools and methods	
	Quality assurance o Guidelines and standards	
	Total quality management	
Examination	50% - assessment of performance during practical exercises and course work 50% - written examination (test questions)	
Literature	Моллов, П. (2013). Качество на храните. Регулиране, контрол, управление. Изд. “Тем Дизайн”, София. Bukeviciute, L., Dierx, A., & Fabienne. (2009). The functioning of the food supply chain and its effect on food prices in the European Union. Brussels: European Commission. Chopra, S., & Meindl, P. (2016). Supply Chain Management Strategy, Planning, and Operation. Essex: Pearson. Kneafsey, M., Venn, L., Schmutz, U., Balázs, B., Trenchard, L., Eyden-Wood, T., . . . Blackett, M. (2013). Short Food Supply Chains and Local Food Systems in the EU. A State of Play of their Socio-Economic Characteristics. Luxembourg: European Union. Krajewski, L. J., Malhotra, M. K., & Ritzman, L. P. (2016). Operations Management Processes and Supply Chains. Harlow: Pearson Education. Lysons, K., & Farrington, B. (2012). Purchasing and Supply Chain Management. London : Pearson Myerson, P. A. (2015). Supply Chain and Logistics Management Made Easy: Methods and Applications for Planning, Operations, Integration, Control and Improvement, and Network Design. London: Pearson. Ogden-Barnes, S., & Minahan, S. (2015). Sales promotion decision making: concepts, principles, and practice. New York: Business Expert Press.	

PROFESSIONAL MODULES

Module Name	Food, Culinary Heritage and Tourism	
Code	35.52	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. I. Obreshkov	
Educational Outcomes, Competencies, Qualification	<p>Students will know:</p> <ul style="list-style-type: none"> • The system of scientific and applied knowledge about food, culinary heritage, and cultural tourism. • The legal environment for the protection and valorization of cultural heritage; <p>Students will be able to:</p> <ul style="list-style-type: none"> • Integrate food and culinary heritage into a tourist product; • Present, discuss and defend theses related to food, culinary heritage, and cultural tourism; • Create and offer a product with elements of cultural tourism, being familiar with its regulatory framework; <p>Students will have competencies for:</p> <ul style="list-style-type: none"> • Development of cultural tourism products; • Presentation of cultural heritage to tourists with special needs; • Improvement of the cultural tourism product. 	
Module Content	Topics	Lecturers
	The concept of tourism.	Assoc. Prof. I. Obreshkov
	The system of tourism.	
	Tourism industry.	
	Stages in the historical development of tourism.	
	Leading trends in modern tourism.	
	Economic role and significance of tourism.	
	Social and health, cultural, political and ecological significance of tourism.	
	Main types of tourism.	
	Tourism resources.	
	Tourism market.	
	Costs and prices of tourism activities.	
	Tourism super- and infrastructure. Efficiency.	
	Sustainable tourism development.	
	Cultural tourism. Importance of cultural tourism. Cultural values and cultural heritage for the development of cultural tourism. Classification of cultural tourism sites.	

	Regulatory framework concerning cultural heritage.	
	Material, spiritual and public culture.	
	Bulgaria as a destination for cultural tourism.	
	Food festivals and culinary heritage – preservation of traditions and cultural identity.	
Examination	60% - assessment of performance during the semester and 40% - written examination (test questions)	
Literature	<p>Обрешков, И.О. Платежоспособно туристическо търсене и пазари на туризма – причинно-следствени връзки, Университетско издателство „Паисий Хилендарски“, 2021, ISBN 978-619-202-642-4.</p> <p>Пеев, П., И. Обрешков. Въведение в туризма. Университетско издателство „Паисий Хилендарски“, 2014. ISBN 978-954-423-910-7.</p> <p>Пеев, П., И. Обрешков. Управление на туризма. Университетско издателство „Паисий Хилендарски“, 2015. ISBN 978-619-202-058-3.</p> <p>Freyer, W. Tourismus Einführung in die Fremdenverkehrsökonomie. DeGruyter, Oldenbourg, 2015. ISBN 978-3-486-74194-0.</p>	

PROFESSIONAL MODULES

7th Semester

Module Name	Tourism Management	
Code	35.54	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. I. Obreshkov	
Educational Outcomes, Competencies, Qualification	<p>Students will know:</p> <ul style="list-style-type: none"> • The aspects, types and levels of tourism management; • The tourism structures and organizations at international, national and local levels; • The legal framework concerning tourism; <p>Students will be able to:</p> <ul style="list-style-type: none"> • Develop the human potential in tourism; • Make managerial decisions in tourism • Ensure the quality management in tourism; <p>Students will have competencies for:</p> <ul style="list-style-type: none"> • Dealing with challenges in tourism at various levels of tourism management 	
Module Content	Topics	Lecturers
	Evolution of management science.	Assoc. Prof. I. Obreshkov
	General and specifics of the tourism economy. Cause-and-effect relationships in the tourism economy.	
	Tourism satellite accounts.	
	Multipliers in tourism.	
	Aspects, types and levels of tourism management.	
	Bodies and organizations for coordination and implementation of tourism activities.	
	Tourism structures and organizations at the international level. UN Tourism.	
	Tourism management at UNESCO World Heritage sites.	
	Forms of international cooperation in tourism. Classification of international tourism organizations.	
	Franchising in tourism.	
	Tourism management at the national level.	
	Tourism management at the local level.	

	Legal environment for tourism development: conventions, regulations, directives, laws, ordinances.	
	Effects and efficiency in tourism.	
	Tourism management functions.	
	Management decisions in tourism.	
	Tourism exhibitions.	
	Management of human potential in tourism. Robot vs. human. Professions in tourism of the future. Professional requirements for employees in tourism.	
	Innovations in tourism.	
	Investments in tourism.	
	Artificial intelligence in tourism, hospitality and restaurant industry.	
Examination	90% - assessment of performance during the semester and 10% - written examination (test questions)	
Literature	<p>Freyer, W. Tourismus Einführung in die Fremdenverkehrsökonomie. DeGruyter, Oldenbourg, 2015. ISBN 978-3-486-74194-0.</p> <p>Glaesser, D. Crisis Management in the Tourism Industry. Elsevier, 2003. ISBN 0750679769.</p> <p>Page, S. Tourism Management: Managing for Change. Butterworth-Heinemann, 2009. ISBN 978-185-617-602-6.</p> <p>Page, S.J., P. Brunt, G. Busby, J. Connell. Tourism: a modern synthesis. Thomson, 2005. ISBN 978-1-844-80-415-3.</p> <p>Pettinger, R. Introduction to Management. Macmillan Press, 1997. ISBN 0-333-68-745-0.</p> <p>Robbins, S.P., D.A. De Cenzo. Fundamentals of Management. Pearson, 2005. ISBN 0-13-1968718.</p> <p>Tribe, J. The Economics of leisure and tourism. Butterworth-Heinemann, 2003. ISBN 0750642327.</p>	

PROFESSIONAL MODULES

Module Name	Restaurant Design and Organization	
Code	35.53	
Number of Credits	6	
Type of Module	Compulsory	
Module Coordinator	Asst. Prof. Ana Yaneva	
Educational Outcomes, Competencies, Qualification	Upon successful completion, students will be able to: <ul style="list-style-type: none">• Develop a restaurant concept tailored to a specific target market and organizational culture.• Design functional restaurant layouts in accordance with industry standards and the principles of workplace ergonomics.• Integrate interior design elements with branding and the overall experience of customers and employees.• Create staffing plans for recruitment, training, and management, as well as effective operational workflows.• Apply organizational diagnosis methods to identify strengths and weaknesses in the restaurant structure and processes.• Prepare a comprehensive project plan including budgeting, design, marketing, and human resource management strategies.	
Module Content	Topics	Lecturers
	<ul style="list-style-type: none">• Introduction to Integrated Restaurant Design	Asst. Prof. Ana Yaneva
	<ul style="list-style-type: none">• Types of Restaurants & Concept Development	
	<ul style="list-style-type: none">• Functional Space Planning and Ergonomics	
	<ul style="list-style-type: none">• Interior Design: Atmosphere, Style & Employee Impact	
	<ul style="list-style-type: none">• Financial Planning & Cost Estimation	
	<ul style="list-style-type: none">• Branding & Marketing Through Design & Organizational Culture	
	<ul style="list-style-type: none">• Organizational Structure & Workflows	
Examination	<ul style="list-style-type: none">• Class Participation 30%• Design Case Study 30%	

	<ul style="list-style-type: none"> • Final Project and Presentation 40%
Literature	<p>Industry reports, trend articles, and selected case studies (<i>provided by lecturer</i>)</p> <p>"Restaurant Planning and Design" by Fred Lawson</p> <p>"Strategic Human Resource Management" by Michael Armstrong</p> <p>"Human Resource Management in the Hospitality Industry" by Michael Riley, Cathy Huyton, and Richard Ladkin</p> <p>"Organizational Diagnosis: A Practitioner's Guide" by David A. Nadler</p> <p>„Organizational Culture and Leadership" by Edgar H. Schein</p> <p>"Restaurant Branding: Building a Successful Hospitality Business" by Tim Brown</p> <ul style="list-style-type: none"> • "Marketing for Restaurants" by Michael M. Coltman

PROFESSIONAL MODULES

8th Semester

Module Name	Enogastronomic tourism	
Code	35.55	
Number of Credits	5	
Type of Module	Compulsory	
Module Coordinator	Assoc. Prof. K. Nikovska	
Educational Outcomes, Competencies, Qualification	<p>Students</p> <ul style="list-style-type: none"> • are able to analyze and interpret culinary and wine traditions as part of regional identity and tourism appeal • know the design and promotion of enogastronomic routes, festivals, and events. • are able to design and present food and wine experiences tailored to tourist expectations. • are able to use of storytelling techniques to enhance tourist experience through food and wine narratives. • are able to work in project groups 	
Module Content	Topics	Lecturers
	Introduction to Enogastronomic Tourism. Definitions and scope. Historical and cultural foundations. Trends and global perspectives.	Assoc. Prof. K. Nikovska Asst. Prof. A. Titeryakova
	Food and Wine Production Basics. Overview of viticulture and winemaking. Artisanal and traditional food production. Quality and authenticity standards.	
	Sensory Analysis and Visitor Engagement. Basics of wine and food tasting. Designing tasting sessions and workshops. Engaging visitors through interactive experiences.	
	Tourism Experience Design. Enogastronomic routes and trails. Culinary storytelling and theming. Integration with agri- and rural tourism.	
	Case Studies and Best Practices. European and global enogastronomic destinations. Successful models of gastronomic branding. Innovation in wine and food tourism.	

Examination	50 % - Project design 50% - written examination (test questions)
Literature	<p>Hall, C. M., Sharples, L., Cambourne, B., & Macionis, N. (Eds.). (2000). Wine tourism around the world: Development, management and markets. Oxford: Butterworth-Heinemann.</p> <p>Ellis, A., Park, E., Kim, S., & Yeoman, I. (2018). What is food tourism?. <i>Tourism Management</i>, 68, 250–263.</p> <p>Everett, S. (2016). <i>Food and Drink Tourism: Principles and Practice</i>. SAGE Publications.</p> <p>Hall, C.M., Sharples, E., Mitchell, R., Cambourne, B., & Macionis, N. (eds.) 2003, <i>Food Tourism Around the World: Development, Management and Markets</i>, Butterworth-Heinemann, Oxford. 373pp</p>