

DERS KODU	DERSİN ADI	DÖNEMİ	DERS SAATİ			AKTS	İÇERİK
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GDM 505	SCIENTIFIC RESEARCH METHODS and ETHICS	FALL	3	0	0	5	Experience the preparation of scientific research proposals with concepts related to graduate, scientific research methods. It will be designed as a plan that can be applied and applied with appropriate research methods, and the findings and practices obtained with the application can be designed appropriately and ethically applied.
GDM 511	FOOD SAFETY in TOURISM FACILITIES	FALL	3	0	0	5	Food safety concepts, physical, chemical, microbiological risk factors, food safety management systems, case analysis
GDM 513	PROBIOTICS	FALL	3	0	0	5	Probiotic microorganisms, general properties of probiotics, metabolites produced by probiotics, isolation, identification and preservation methods of probiotics, health benefits of probiotics, use of probiotics in food production, novel probiotic products.
GDM 521	FOOD SCIENCE	FALL	3	0	0	5	This course covers the basic concepts in food science and the study of the physical properties and chemical structures of macro and micro components of food such as water, carbohydrates, proteins, fats, vitamins and minerals. The importance of physical and chemical reactions (retrogradation, enzymatic and non-enzymatic browning, denaturation, oxidation, etc.) in food processing, storage and new product development will also be discussed in detail.
GDM 523	PRINCIPLES of NUTRITION	FALL	3	0	0	5	This course covers in detail the chemical structures of macronutrients (carbohydrates, fats and proteins) and micronutrients (vitamins and minerals) in foods, major food sources, their roles in the body, digestion, absorption and transport processes, deficiencies and toxicity symptoms. Phytochemicals and probiotics, which are prominent for their health-promoting and disease-preventive functions, will also be examined in detail.
GDM 531	THERMAL PROCESS ENGINEERING	FALL	3	0	0	5	General principles of heat transfer. Conduction and thermal conductivity. Experimental methods for the determination of thermal conductivity, methods of analysis. Steady and unsteady state conduction. Analytical and numerical solutions. Thermal methods applied in food processing.
GDM 533	CEREAL PRODUCTS	FALL	3	0	0	5	Cereals and their storage. Cereal chemistry. Starch and starch-based products. Bread production. Baker's yeast and chemical leaveners. Production of biscuits, cookies, crackers and cakes. Hard wheat products: pasta and bulgur. Breakfast cereals and snack foods.
GDM535	BASIC COOKING METHODS	FALL	3	0	0	5	Nutrition. Nutritional elements. Purpose of cooking. Heat transfer types Classification of cooking methods: Moist, dry, and new cooking methods. Equipments. Effect of different cooking methods on health. Occupational health and safety.
GDM 541	COLLOID FOODS	FALL	3	0	0	5	Examination of the importance of colloidal systems in foods; understanding the effects of colloidal systems on product quality and detailed examination of topics such as colloidal systems; product formulations; stability; quality characteristics; consumer perspectives; legal status.
GDM 543	ADVANCED FRUIT and VEGETABLE PROCESSING TECHNOLOGY	FALL	3	0	0	5	Composition of fruits and vegetables, preservation, canning, tomato paste, jam, jelly and marmalade and dried processing, different processing methods, quality criteria. This course covers fruit juice processes additionally methods of protection against spoilage during processing and storage.
GDM 545	SENSORY PROPERTIES and DEVELOPMENT OF FOODS	FALL	3	0	0	5	Identification of the sensory qualities of foods (appearance, taste, odor and tactile properties). Objective measurement and development of these properties by sensory methods

I.YIL – II. YARIYIL

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LEE 582	MASTER ADVISING	SPRING	0	1	0	1	It is an application course that the thesis advisor will open together with the master's specialization and thesis work.
GDM 504	BİTİRME PROJESİ	SPRING	0	1	0	9	Providing students' presentations in class by making studies on the field they intend to research.
GDM 510	FOOD LEGISLATION	SPRING	3	0	0	5	Food crimes and national legislation, Turkish Food Codex, EFSA, FDA, ISO reviews, operational issues, responsible engineering
GDM 512	FERMENTED DAIRY PRODUCTS	SPRING	3	0	0	5	Basic processes applied in the production of fermented dairy products (yoghurt, kefir, koumiss, cheese), microbiology and biochemistry of fermented dairy products, starter cultures, nutritional value of fermented dairy products and their effects on human health, recent advances in fermented dairy products science and technology
GDM 514	QUALITY DEFECTS in DAIRY PRODUCTS and THEIR	SPRING	3	0	0	5	Sensory, physical and compositional quality defects encountered in dairy products such as UHT and pasteurized milk, yoghurt, cheese, butter etc., their causes and prevention ways.

	PREVENTION WAYS						
GDM 520	FOOD SUPPLY CHAIN MANAGEMENT	SPRING	3	0	0	5	This course deals with supply chain technologies used in raw, semi-raw and finished product logistics stages, starting from the supply of quality and safe raw materials in the process considered as field to fork, and the coordination of business processes for the continuity of information flow. Inventory management, product data management, warehouse management systems, transportation, distribution and operational functions and barcoding technology are covered.
GDM 530	NON-THERMAL PROCESSING TECHNOLOGY in FOOD INDUSTRY	SPRING	3	0	0	5	Principles of non-thermal processing foods. High hydrostatic pressure (HHP), Pulsed Electric Field (PEF), Pulsed Light and Ozone applications. The theory of engineering systems and effects on microbiological, structural and biochemical systems of foods. Quality and shelf-life evaluations
GDM 532	CATERING TECHNOLOGY	SPRING	3	0	0	5	Catering industry. Principles of nutrition. Menu and kitchen planning, equipment selection and settlement. Storage, hygiene and sanitation in catering systems. Food safety. Food preparation methods. Quality management in catering systems.
GDM 540	FLOW PROPERTIES of FOODS	SPRING	3	0	0	5	Definition and history of rheology; difference between rheology and texture; shear and force definitions; rheological behavior models; Newtonian and non-Newtonian fluids; time-dependent (rheopectic; thixotropic) and time-independent (pseudoplastic and dilatant) fluids
GDM 542	SCIENTIFIC ARTICLE and PROJECT PREPARATION TECHNIQUES	SPRING	3	0	0	5	Teaching research and project preparation, presentation and academic writing techniques
GDM 544	SPECIALTY FOODS TECHNOLOGY	SPRING	3	0	0	5	Sugar, confectionery, chocolate, tea, coffee technologies

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LEE 500	TERM PROJECT	0	1	0	1	30	To conduct methodological and subject-related studies necessary for writing a master's thesis
GENEL TOPLAM		0	1	0	1	30	