**BESY 501 ADVANCED NUTRITION I (3-0) (AKTS 6)**

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| Type of Lesson | Optional |
| Lesson Content | The assimilation and uses of macronutrients are emphasized, and energy balance, carbohydrate, protein and fat metabolisms and their interactions with health are studied in the form of lectures, discussions and student seminars. It is the detailed examination of the role of human nutrition in the protection and maintenance of health. It is aimed to evaluate the metabolism of macronutrients (Proteins, fats and carbohydrates) from the point of view of biochemistry, physiology and nutritional sciences. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | 1. Have advanced knowledge on important points related to nutrition ,2. Gain the competence to apply knowledge skills about macronutrient elements and their interactions with health3. Examines, compiles and presents printed materials in the field of nutrition and dietetics4. Gain the competence to discuss new topics related to nutrition (ability to think, access information, evaluate and synthesize) |
| Textbook / Other Material | 1.Introduction to Human Nutrition (ISBN: 978-1-4051-6807-6); The Nutrition Society, 2nd Edition, Wiley-Blackwell Publishing. 2009.2.Nutrition and Metabolism (ISBN: 978-1-4051-6808-3); The Nutrition Society, Wiley-Blackwell Publishing. 2011.3.Metabolic Regulation: A Human Perspective, 3rd edition (ISBN: 978-1-4051-8359-8); Wiley-Blackwell Publishing. 2010.4.Modern Nutrition in Health and Disease, 11th edition (ISBN: 978-1-6054-7461-8); Williams & Wilkins. 2014.5.Biochemical and Physiological and Molecular Aspects of Human Nutrition, 4th edition (ISBN: 978-0-323-44181-0); Elsevier, 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 502 ADVANCED NUTRITION II (3-0) (AKTS 6)**

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| Type of Lesson | Optional |
| Lesson Content | The properties of micronutrients, their biochemical and physiological functions, vitamin and mineral interactions, symptoms of insufficiency and toxic effects are studied in the form of lectures, discussions and student seminars. It is the detailed examination of the role of human nutrition in the protection and maintenance of health. It is aimed to evaluate micronutrients and water metabolism in terms of biochemistry, physiology, toxicology and nutritional sciences. |
| Prerequisite / Recommended | To have taken the BEST 520 Advanced Nutrition I lesson |
| The Aim and Purpose of the Lesson Learning Achievements | Have advanced knowledge on important points related to nutrition,Acquires the competence to apply knowledge skills about micronutrient elements and their interactions with health,Examines, compiles and presents printed materials in the field of nutritionGain the competence to discuss new topics related to nutrition (ability to think, access information, evaluate and synthesize) |
| Textbook / Other Material | 1.Introduction to Human Nutrition (ISBN: 978-1-4051-6807-6); The Nutrition Society, 2nd Edition, Wiley-Blackwell Publishing. 2009.2.Nutrition and Metabolism (ISBN: 978-1-4051-6808-3); The Nutrition Society, Wiley-Blackwell Publishing. 2011.3.Metabolic Regulation: A Human Perspective, 3rd edition (ISBN: 978-1-4051-8359-8); Wiley-Blackwell Publishing. 2010.4.Modern Nutrition in Health and Disease, 11th edition (ISBN: 978-1-6054-7461-8); Williams & Wilkins. 2014.5.Biochemical and Physiological and Molecular Aspects of Human Nutrition, 4th edition (ISBN: 978-0-323-44181-0); Elsevier, 2019.  |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 503 ADVANCED NUTRITIONAL BIOCHEMISTRY (2-0) (AKTS 4)**

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| Type of Lesson | Optional |
| Lesson Content | Metabolism and functions of nutrients/ Some structure and properties of biomolecules/ biochemical energy conversion/ biosynthesis of vitamins and cofactors/ energy in humans, amino acid, mineral and vitamin requirements determination/ nutrient enrichment/ today's nutrition problems/ Laboratory devices, the operation of abilities and studies to determine the limits. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to teach the student the mechanisms and effectiveness of the nutritional elements that form the basis of nutrition in the human body, as well as to enable him to understand the relationships of nutritional elements with chronic diseases and to develop solutions for them. |
| Textbook / Other Material | 1) Denise R. Ferrier. Lippincott Biyokimya. Nobel Tıp Yayınevi 2015.2) Aksoy M. Beslenme Biyokimyası. Ankara Nobel Tıp Kitabevleri, Ankara 2020.3) Baysal A. Beslenme. Hatiboğlu Yayınevi, Ankara 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 504 ANTHROPOMETRY OF NUTRITION (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Principles and applications for determining the nutritional status at the individual and social level / Methods for determining the nutritional status / Anthropometric measurements/ Use and interpretation of data obtained through biochemical analyses and clinical observations |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with basic knowledge and skills related to anthropometric measurements and nutritional status determination. In addition, at the end of this course, students will also be equipped with information about how patients should interpret biochemical and anthropometric measurement reports. |
| Textbook / Other Material | 1) Munoz N, Bernstein M. Beslenme Durumunun Saptanması. Ema Tıp Kitabevi, İstanbul 2021.2) Width M, Reinhard T. Klinik Beslenme İçin Temel Cep Kitabı. Ema Tıp Kitabevi, İstanbul 2021.3) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015.4)Tüfekçi Alphan E. Hastalıklarda Beslenme Tedavisi. Hatiboğlu Yayınevi, Ankara 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 505 NUTRITIONAL SUPPLEMENTS, EVALUATION OF THEIR CONTRIBUTION TO HEALTH AND NUTRITION (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Phytochemicals: phenolic compounds, Terpenes, Sterols, nucleotides, and others, nutritional Fiber/ ingredients and fatty acids/ Vitamins/ Minerals/ Prebiotics/ Probiotics/ functional Foods/ dietary supplements Interactions with Drugs |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with learning about the use of nutritional supplement products, also called functional food or food, their mechanisms of action and their effects on health. |
| Textbook / Other Material | 1) Mahan KL, Raymond JL. Krause Besin & Beslenme Bakım Süreci. Ankara Nobel Tıp Kitabevi, Ankara 2019.2) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015.3)Tüfekçi Alphan E. Hastalıklarda Beslenme Tedavisi. Hatiboğlu Yayınevi, Ankara 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 506 FUNCTIONAL NUTRIENTS (3-0) (AKTS 6)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | The definition of Functional Foods, history/ international developments on functional foods/ Functional Food Science, Food Science, Scientific Foundations on functional/ Functional the aim of functional food science/ nutritional science point of view to technological/ functional food components and features/ functional foods in disease prevention and raising the quality of life roles. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with general information about functional food / food, their therapeutic effect on chronic diseases, and knowledge and skills about production processes. |
| Textbook / Other Material | 1) ) Baysal A. Beslenme. Hatiboğlu Yayınevi, Ankara 2019.2) Kalkan İ, Akman M. Klinik Uygulamalarda Beslenme. İstanbul Tıp Kitabevleri, İstanbul 2017.3) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015.4)Tüfekçi Alphan E. Hastalıklarda Beslenme Tedavisi. Hatiboğlu Yayınevi, Ankara 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 507 ANTHROPOLOGY OF NUTRITION (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Change-development of nutritional habits in the historical process/ Nutrition habits in different religions/ Social, economic, cultural, political, geographical reasons-factors affecting nutrition/ Differences in dietary habits between our country and countries. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with basic knowledge and skills about nutritional habits and food and beverage practices in communities living in different geographies or different time periods. |
| Textbook / Other Material | 1) Kutluay Merdol T. Beslenme Antropolojisi I. Hatiboğlu Kitabevi, Ankara 2018.2) Aktümsek A, Güler GÖ, Çakmak YS, Zengin G. Beslenme İlkeleri. Nobel Yayınevi, Ankara 2019.3) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 508 NUTRITION AND GENETICS (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | DNA structure and whether nutrition has an effect on this structure / The effects of individual characteristics on food selection and metabolism / Food allergies / Tests used to determine the reactions of individuals to food. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with basic knowledge and skills about the concepts of nutrition and genetics and their interactions. |
| Textbook / Other Material | 1) Width M, Reinhard T. Klinik Beslenme İçin Temel Cep Kitabı. Ema Tıp Kitabevi, İstanbul 2021.2) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015.3) Mahan KL, Raymond JL. Krause Besin & Beslenme Bakım Süreci. Ankara Nobel Tıp Kitabevi, Ankara 2019.4) Carlberg C, Ulven SM. Nutrigenetik. Pelikan Yayınevi, İstanbul 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 509 COMMUNITY NUTRITION (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Education programs to be made about raising awareness of the society in nutrition, educational objectives and points to be considered in the selection of messages / Principles of preparing training modules to be used in the education of mothers, pre-school children, school children, adolescents, the elderly, pregnant and lactating women and people with degenerative diseases. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with general information about nutrition education and basic knowledge and skills about how the education should be done as a whole. |
| Textbook / Other Material | 1) Munoz N, Bernstein M. Beslenme Durumunun Saptanması. Ema Tıp Kitabevi, İstanbul 2021.2) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015.3)Holli BB, Beto JA. Beslenme Danışmanlığı ve Eğitim Rehberi. Ankara Nobel Tıp Kitabevi, Ankara 2022.  |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 510 NUTRITIONAL COUNSELING AND COMMUNICATION SKILLS (2-0) (AKTS 4)**

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| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Education programs to be made about raising awareness of the society in nutrition, educational objectives and points to be considered in the selection of messages / Principles of preparing training modules to be used in the education of mothers, pre-school children, school children, adolescents, the elderly, pregnant and lactating women and people with degenerative diseases. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with general information about nutrition education and basic knowledge and skills about how the education should be done as a whole. |
| Textbook / Other Material | 1) Munoz N, Bernstein M. Beslenme Durumunun Saptanması. Ema Tıp Kitabevi, İstanbul 2021.2) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015.3)Holli BB, Beto JA. Beslenme Danışmanlığı ve Eğitim Rehberi. Ankara Nobel Tıp Kitabevi, Ankara 2022.  |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 511 WEIGHT CONTROL AND EATING BEHAVIOR DISORDERS (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Body components and body weight control/ Weight imbalance: obesity and underweight/ Diagnosis, risks and etiology of obesity and weight control/ Weight control with diet modification in adults and children/ Epidemiology and pathophysiological consequences of eating behavior disorders/ Nutritional control and nutrition in eating behavior disorders education. |
| Prerequisite / Recommended | None  |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with basic information about obesity and eating behavior disorders and general and current nutritional information for the treatment of these diseases. |
| Textbook / Other Material | 1) Mahan KL, Raymond JL. Krause Besin & Beslenme Bakım Süreci. Ankara Nobel Tıp Kitabevi, Ankara 2019.2) Width M, Reinhard T. Klinik Beslenme İçin Temel Cep Kitabı. Ema Tıp Kitabevi, İstanbul 2021.3) Baysal A, Aksoy M, Besler T, Bozkurt N, Keçecioğlu S, Mercanlıgil S, Merdol T, Pekcan G, Yıldız E. Diyet El Kitabı. Hatiboğlu Yayınevi, Ankara 2015.4)Tüfekçi Alphan E. Hastalıklarda Beslenme Tedavisi. Hatiboğlu Yayınevi, Ankara 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 512 PREGNANCY AND LOCATIONAL NUTRITION (3-0) (AKTS 6)**

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| Type of Lesson | Optional |
| Lesson Content | Basic concepts and theories about pregnant and lactating, fetal nutrition, pregnancy physiology, pregnancy-related gastrointestinal problems, energy and nutrient requirements during pregnancy, common health problems during pregnancy, food safety during pregnancy, factors affecting breast milk secretion, lactation and breastfeeding, lactation physiology, breastfeeding problems, energy and nutrient requirements during lactation. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to discuss and develop general information about pregnant and lactating women, physiological changes that occur, methods to be followed in case of illness, formulations necessary for pregnant and lactating nutrition, and clinical knowledge and experiences. |
| Textbook / Other Material | 1) Nevin Şanlıer. Anne ve Çocuk Beslenmesi, Ankara, 2021.2) Karaağaoğlu, N., Eroğlu Samur, G. Anne ve Çocuk Beslenmesi, Ankara, 2017.3) Arlı, M., Şanlıer, N., Küçükkömürler, S., Yaman, M. Anne ve Çocuk Beslenmesi, Ankara, 2013. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 513 NUTRITION DURING CHILDHOOD AND ADOLESCENCE (3-0) (AKTS 6)**

|  |  |
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| Type of Lesson | Optional |
| Lesson Content | The characteristics of the digestive system in infancy and childhood eating habits and issues, energy and nutrient requirements, school-age and adolescent children the nutritional characteristics, problems and habits with nutrients and nutrient requirements, applications and examples of school feeding program in the world and Turkey. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with problems that he may encounter during childhood and adolescence, ways to get the right eating habits and formulations that he needs to apply in order to meet the nutritional requirements. |
| Textbook / Other Material | 1) Nevin Şanlıer. Anne ve Çocuk Beslenmesi, Ankara, 2021.2) Karaağaoğlu, N., Eroğlu Samur, G. Anne ve Çocuk Beslenmesi, Ankara, 2017.3) Arlı, M., Şanlıer, N., Küçükkömürler, S., Yaman, M. Anne ve Çocuk Beslenmesi, Ankara, 2013. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 514 NUTRITION IN ACUTE AND CHRONIC CHILDREN'S DISEASES (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Protein-energy malnutrition and nutritional therapy, absorption disorders, nutritional therapy, gastroenteritis, and nutritional therapy, and nutrition for inborn metabolic diseases, congenital heart diseases, nutrition, type1 diabetes nutrition, nutrition in inflammatory diseases, kidney diseases, oncological diseases, nutrition, diseases of the nervous system, nutrition, infant nutrition, that is used in the formula. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | Infant and childhood acute and chronic diseases that can be seen in this course to be able to identify the setting and formulations to meet the requirements of enforcement, and to consider the multifactor approach is intended to enable you to look. |
| Textbook / Other Material | 1) Köksal, G., Gökmen, H. Çocuk Hastalıklarında Beslenme Tedavisi, Ankara2000.2) Şanlıer, N. Vakalarla öğreniyorum: Çocuk hastalıklarında tıbbi beslenme tedavisi-1, Ankara, 2019.3) Şanlıer, N. Vakalarla öğreniyorum: Çocuk hastalıklarında tıbbi beslenme tedavisi-2, Ankara, 2019.4) Şanlıer, N. Vakalarla öğreniyorum: Çocuk hastalıklarında tıbbi beslenme tedavisi-3, Ankara, 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 515 CHILDHOOD OBESITY: PREVENTION, TREATMENT (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Definition of childhood obesity, obesity risk factors, pathophysiology of obesity, consequences of obesity, prevention and treatment methods of obesity. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with information about the causes and consequences of obesity that may occur during childhood, its difference from adult obesity and treatment methods. |
| Textbook / Other Material | 1) Nevin Şanlıer. Anne ve Çocuk Beslenmesi, Ankara, 2021.2) Karaağaoğlu, N., Eroğlu Samur, G. Anne ve Çocuk Beslenmesi, Ankara, 2017.3) Arlı, M., Şanlıer, N., Küçükkömürler, S., Yaman, M. Anne ve Çocuk Beslenmesi, Ankara, 2013. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 516 NUTRITION OF THE ELDERLY (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Changes in metabolism in old age, nutrient requirements, problems related to deficiencies, food selection and use, nutrition programs specific to old age, education and research. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with knowledge of physiological changes that may occur during old age, problems that may occur, and nutritional therapy. |
| Textbook / Other Material | 1) Acar Tek N., Aksoydan, E. Geriatride Beslenme, Ankara, 2021.  |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 517 ATHLETE NUTRITION (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Food items and effects on performance / physical activities that are required for energy systems / fluid intake / body composition / energy balance and weight control Exercise / its relation to health / women who exercise inadequate and unbalanced nutrition-related problems, and nutritional supplements. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with the necessary information for maintaining a healthy type of exercise, energy systems and body composition. |
| Textbook / Other Material | 1) Ersoy, G. Egzersiz ve spor yapanlar için beslenme. Ankara, 2011.2) Karabudak, E., Turnagöl, H., Farklı spor dallarında egzersiz ve beslenme, Ankara, 2018. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 518 DIETARY THERAPY IN DIABETES MELLITUS (2-0) (AKTS 4)**

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| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | Classification and pathophysiology of glucose intolerance / Diabetes diagnosis criteria for monitoring and / acute and Chronic Complications / carbohydrate metabolism and hormones (insulin, glucagon, etc.) / diabetes prevention and treatment / diet therapy. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with the necessary information about the pathophysiology of diabetes, its consequences and medical nutrition treatment. |
| Textbook / Other Material | 1) Şanlıer N., Vakalarla öğreniyorum: Yetişkin hastalıklarında tıbbi beslenme tedavisi-1, Ankara, 2021. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 519 DIETARY THERAPY FOR DISEASES OF THE GASTROINTESTINAL TRACT (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | The incidence of diseases of the digestive system / digestive system diseases etiology / clinical symptoms and complications of diseases of the digestive system diseases of the digestive system / principles of medical nutrition therapy in diseases of the digestive system. |
| Prerequisite / Recommended | None  |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with the necessary information about the pathophysiology, consequences and medical nutrition treatment of diseases of the gastrointestinal tract. |
| Textbook / Other Material | 1) Akbulut, G. Gastrointestinal sistem hastalıklarında tıbbi beslenme tedavisi, Ankara, 2017. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 520 DIETARY TREATMENT FOR CARDIOVASCULAR DISEASES (2-0) (AKTS 4)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | The incidence of cardiovascular diseases / etiology of digestive system diseases / clinical symptoms and complications of diseases of the digestive system diseases of the digestive system / principles of medical nutrition therapy in diseases of the digestive system. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, it is aimed to provide the student with the necessary information about the pathophysiology of cardiovascular diseases, their consequences and medical nutrition treatment. |
| Textbook / Other Material | 1) Akbulut, G. Endokrin ve kardiyometabolik hastalıklarda tıbbi beslenme tedavisi, Ankara, 2019. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 521 ADVANCED NUTRIENT ANALYSIS (3-0) (AKTS 6)**

|  |  |
| --- | --- |
| Type of Lesson | Optional |
| Lesson Content | The occurrence and importance of water in food, carbs, sugars, and properties of carbohydrates, polysaccharides, and reactions in foods dry matter analysis, protein structure, amino acids, nutrients, pH and acidity of the analysis, the importance and reactions of proteins, enzymes, structure, nutrient important in the structure of enzymes, classification of lipids, definitions, determination of the amount of fat and the importance of lipids in food, food additives, mineral substances in foods. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, the foundation of nutrition sciences will be established and basic knowledge education will be provided to the students and it is aimed to provide them with the ability to combine this course with other field courses in the future. |
| Textbook / Other Material | -Fennema''s Food Chemistry, Fourth Edition (Food Science and Technology) by Srinivasan Damodaran (Editor), Kirk L. Parkin (Editor), Owen R. Fennema (Editor), 2007, CRC Press. |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |

**BESY 522 TOXIC SUBSTANCES IN FOODS AND METHODS OF ANALYSIS (3-0) (AKTS 6)**

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| Type of Lesson | Optional |
| Lesson Content | Nutritional toxicology toxicology and identification of toxic compounds in food and their impact on Natural Health, examining the effects of chemical pollutants that can contaminate foods and observation, the toxic and carcinogenic elements in foods, methods for the determination of toxic elements in food production, food preparation and storage that may occur during the phase from toxic substances and compounds is the study of the toxic effects on human health. |
| Prerequisite / Recommended | None |
| The Aim and Purpose of the Lesson Learning Achievements | In this course, the foundation of nutrition sciences will be established and basic knowledge education will be provided to the students and it is aimed to provide them with the ability to combine this course with other field courses in the future. |
| Textbook / Other Material | -Hacettepe Üniversitesi Gıda Mühendisliği Bölümü Toksikoloji Dersi Notları 2. Ondokuz Mayıs Üniversitesi Gıda Mühendisliği Bölümü Toksikoloji Dersi Notları.- Altuğ, T., 2002. Introduction to Toxicology and Food, CRC Press. Florida, 152 s.-Altuğ, T. (Ed.)., 2009. Gıda Katkı Maddeleri.Sidas Medya Ltd. Şti. İzmir. 268 s.-Barnes KA, Sinclair CR, Watson DH. (Eds.) Chemical migration and food contact materials. Woodhead Publishing Limited and CRC Press LLC, 2007.-Helferich W, Winter CK. (Eds.) Food Toxicology. CRC Press LLC, 2001. Şener S, Yıldırım M. Toksikoloji. teknik Yayıncılık, İstanbul, 2000 |
| The Way of Teaching | Teaching, group discussion, seminars, use of resources related to topics |
| The Way the Lesson is Evaluated | One written midterm exam (50%)One written final exam (50%) |
| Education language | Turkish |
| Teaching Staff | Faculty Members of the Department |