COURSE NAME

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Nutritional Chemistry and Applications II	BDB204	4th Semester/Spring Term	2	0	2	4
Prerequisites	None					
Language of Instruction	Turkish					
Course Type	Compulsory					
Learning and Teaching Techniques of The Course	Expression Question & Answer Display Application Laboratory					
Instructor(s)	Prof. Dr. Fahrettin GÖĞÜŞ					
Goal	To teach the nutrients of macro nutrients such as carbohydrates, proteins and fats and the chemical properties of components such as enzymes, pigments and flavoring compounds and the changes in these properties during the production-consumption process.					
Learning Outcomes	1. Know and apply the objective and subjective methods used in the evaluation of food quality 2. To know general structure and properties of basic food groups such as milk, meat, eggs, cereals, vegetables and fruits, fat, sugar 3. To know the general principles of food processing methods and new and frequently used techniques 4. To be able to learn production techniques applied to different food groups 5. Be able to understand the changes in the structure of food by the applied technology 6. Evaluate the health effects of the changes due to the applied technology 7. Define functional foods and classify them according to bioactive nutrient components 8. Knowing the possible health effects of functional food components and developing appropriate suggestions for these foods to be included in the diet 9. Knowing national and international regulations covering functional foods 10. Know functional foods in national and international markets, know their usage areas 11. Ability to interpret current issues related to food science					
References	1. Belitz H.D. Grosch, W. (1999). Food Chemistry. Springer-Verlag Berlin Heidelberg-Germany. 2. Yücecan, S. Baykan, S. (1981). Nutritional Chemistry					

Course Outline Weekly:

WEEKS	TOPİCS
1. Week	Evaluation of food quality
2. Week	General characteristics of milk and dairy products, applied nutrient processing methods and related laboratory practices
3. Week	General characteristics of meat, poultry, fish and products, applied nutrition methods and related laboratory practices

4. Week	General characteristics of egg, applied nutrient processing methods and related laboratory practices
5. Week	General characteristics of cereal and cereal products, applied nutrition methods and related laboratory practices
6. Week	General characteristics of vegetables and fruits, applied nutritional methods
7. Week	General characteristics of beverages (tea, coffee, cocoa, etc.), applied nutritional methods
8. Week	**MIDTERM EXAM**
9. Week	General properties of fats, applied nutrient processing methods and related laboratory practices
10. Week	General characteristics of sugar and its products, applied nutritional methods
11. Week	Basic food processing and storage methods (heat treatment, freezing, radiation, biotechnology, evaporation, dehydration, high pressure treatment, canned food etc.)
12. Week	Packing methods used in food industry
13. Week	Functional foods (definition, developmental process of functional foods, classification of functional foods according to bioactive components - probiotics, prebiotics, phytochemicals, fatty acids etc. Factors affecting food quality and methods used for subjective evaluation
14. Week	Functional foods (definition, developmental process of functional foods, classification of functional foods according to bioactive components - probiotics, prebiotics, phytochemicals, fatty acids etc. Factors affecting food quality and methods used for subjective evaluation
15. Week	Functional foods (definition, developmental process of functional foods, classification of functional foods according to bioactive components - probiotics, prebiotics, phytochemicals, fatty acids etc. Factors affecting food quality and methods used for subjective evaluation

Student Work Load Table

Activities	**Number**	**Duration**	**Total Work Load**
Course Duration	14	2	28
Laboratory	14	2	28
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	2	28
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	1	6	6
Final Exam Preparation Time	1	10	10
Total Work Load (hour) / 25(s)	**100/25=4**		
ECTS	**4**		

Evaluation System

Mid-Term Studies	**Number**	**Contribution**
Midterm exams	1	%50
Quiz		
Laboratory	1	%50
Practice		
Field Study		
Course Internship (If There Is)		
Homework's		
Presentation and Seminar		
Project		
Other evaluation methods		
Total Time To Activities For Midterm		100
Final works		
Final	1	%100
Homework		
Practice		
Laboratory		
Total Time To Activities For Midterm		100
Contribution Of Midterm Studies On Grades		%50
Contribution Of Final Exam On Grades		%50
Total		100

The relationship between learning outcomes and the program qualifications of the courses

Program Qualifications	**Learning outcomes**										
	L.O. 1	**L.O . 2**	**L.O. 3**	**L.O. 4**	**L.O. 5**	**L.O. 6**	**L.O. 7**	**L.O. 8**	**L.O. 9**	**L.O.1 0**	**L.O.1 1**
1. To acquire information in the basic and social sciences as the Dietitian as he profession entails and make use of it for life.	3	3	3	3	3	3	3	3	3	3	3
2. To develop personalized diet and programme in accordance with the principles of adequate and balanced nutrition.											

3.	To improve and develop the food and nutrition plans and policy for the development of individuals with the energy and nutrient element requirements with scientific method detection, health protection	1	1	1	1	1	1	1	1	1	1	1
4.	To determine and evaluate individual, the community and the patient's nutritional status by applying up-to-date information gained in the field of nutrition and dietetics. She/he can use the knowledge to raise the level of community health and the quality of life.											
5.	Assess the nutritional status of the patients, evaluate the clinical symptoms, plan and apply individualized medical nutrition therapy for the patients.											
6.	The student can understand											

	the basic values and culture of the society he/she is living in and gain the skill to transform him/herself in a positive way											
7.	Dietitian can improve products, make laboratory practice on elements affecting analysis and quality of nutrition, review and evaluate them regarding the legal regulations	5	5	5	5	5	5	5	5	5	5	5
8.	The student embraces the concepts with regard to biological systems that form the basis of human health, Anatomy, Physiology, and the sustainability of them.											
9.	The student can participate in Nutrition and Dietetics practices individually and/or within a team, use, apply, discuss and share scientific and evidence based knowledge in											

nutrition and dietetics practice with team and team members, develop and demonstrate effective skills using oral, print, visual methods in communicating and expressing thoughts and ideas, communicate with all stakeholders within ethical principles. Develop and demonstrate effective communications skills using oral, print, visual, electronic and mass media methods											
10. Dietitian has knowledge to develop food and nutrition plans and policies for protection of health, in order to improvement and development by using methods for determining the nutritional status.											

Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent