BDB203 - Food Chemistry and Application-I

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Food Chemistry and Application-I	BDB203	3. Semester / Autumn	2	0	2	4

Prerequisites	None
Language of Instruction	Turkish
Course Type	Compulsory
Learning and Teaching Techniques of The Course	Lecture, question and answer, Experiment (laboratory) method
Instructor(s)	
Goal	The aim of this course is to teach basic components of foods, chemical structures, their functions and analytical techniques used for their analysis.
Learning Outcomes	1. Learn the physical, chemical and functional properties of carbohydrate, protein, fat, enzyme, pigment, taste and odor components in the structure of foods, 2. Understands the physical and chemical reactions that affect the quality of food, 3. Acquires the principles of basic qualitative / quantitative methods and ability to use in food analysis, 4. Interprets the results of the analysis within the framework of the information taught, explains in writing and orally,
References	1.Belitz HD, Grosch W. Food Chemistry. Springer-Verlag Berlin Heidelberg Germany, 1999. 2.Fennema OR. Food Chemisrty. Third Ed. MarcelDekker, INC. New York, 1996 3.American Oil Chemists' Society (www.aocs.org) 4.Codex Alimentarius Commision (http://www.fsis.usda.gov/codex/ind ex.asp) 5.American Association of Cereal Chemist (http://www.aaccnet.org/) 6.World and Health Organization (www. who.org) 7.Food and Drug Administartion (www. https://www.fda.gov/)

Course Outline Weekly:

WEEKS	TOPICS
1. Week	Colloidal Systems / Solvents
2. Week	Colloidal systems / Solvents and laboratory applications
3. Week	Chemical and functional properties of the water of the foods and related laboratory applications
4. Week	Chemical and functional properties of carbohydrates in foods
5. Week	Chemical and functional properties of carbohydrates in foods and related laboratory practices
6. Week	Chemical and functional properties of proteins in foods
7. Week	Chemical and functional properties of proteins in foods and related laboratory applications
8. Week	**MIDTERM EXAM**
9. Week	Chemical and functional properties of oils in foods
10. Week	Chemical and functional properties of fats and their related laboratory applications
11. Week	The properties of enzymes in foods, their functions
12. Week	The properties of enzymes in foods, their functions and related laboratory practices
13. Week	Chemical and functional properties of pigments in foods and related laboratory applications
14. Week	Chemical and functional properties of pigments in foods and related laboratory applications
15. Week	Chemical and functional properties of taste and odor components of foods and related laboratory applications

Student Work Load Table

Activities	Number	Duration	Total Work Load
Course Duration	14	2	28
Laboratory	9	2	18
Practice			
Field Study			
Study Time of Outside of Class (Pre-Study, Practice, Etc.)	14	3	42
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	6	6
Total Work Load (hour) / 25(s)	100/ 25=4		
ECTS	**4**		

Evaluation System

Mid-Term Studies	**Number**	**Contribution**
Midterm exams	1	50%
Quiz		
Laboratory	9	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		40%
Contribution Of Final Exam On Grades		60%
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**
1. Enables the students to use theoretical knowledge based on basic and social sciences in practice.	2	2	1	1
2. Has the ability to use equipment and information Technologies required for the professional practice efficiently.	1	1	4	2
3. Knows his rights, duties and responsibilities towards the society, colleagues, and other professions, individuals and patients, and learns how to behave in harmony with the professional ethical rules.	1	1	1	1
4. When confronted with problems within any field of Nutrition and Dietetics, has the ability to observe, diagnose, assess, report and come up with solutions thanks to their up-to-date knowledge and skills.	3	3	4	3
5. Gains efficient working skills based on the principles of effective communication, responsibility, solution-oriented working in disciplinary and interdisciplinary conditions.	2	2	4	4
6. Has the ability to make a plan for a research individually or as part of a team, make experiments, collect and analyze the data, interpret and write a report by using theoretical / practical knowledge and skills gained in the field of Nutrition and Dietetics.	5	5	4	5
7. Develops suggestions for health/sick individuals and those at risk considering their lifelong diet.	2	4	3	4
8. Gains knowledge to contribute to the diet plans and politics to be developed based on the needs of the individuals and the society.	4	5	4	3
9. Improves themselves by following the latest advances in their profession nationally and internationally, and acquires awareness in lifelong learning.	4	4	4	4

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