QUALITY CONTROL SYSTEM IN FOODS AND THEIR ANALYSIS METHODS

1	Course Title:	QUALITY CONTROL SYSTEM IN FOODS AND THEIR ANALYSIS METHODS
2	Course Code:	VBH5020
3	Type of Course:	Optional
4	Level of Course:	Second Cycle
5	Year of Study:	1
6	Semester:	2
7	ECTS Credits Allocated:	5.00
8	Theoretical (hour/week):	1.00
9	Practice (hour/week):	2.00
10	Laboratory (hour/week):	0
11	Prerequisites:	None
12	Language:	Turkish
13	Mode of Delivery:	Face to face
14	Course Coordinator:	Prof. Dr. ARTUN YIBAR
15	Course Lecturers:	Yok
16	Contact information of the Course Coordinator:	Mail: artunyibar@uludag.edu.tr Tel: 02242941359 Adres: Bursa Uludağ Ünv. Veteriner Fak. Besin Hijyeni ve Teknolojisi Anabilim Dalı
17	Website:	http://saglikbilimleri.uludag.edu.tr
18	Objective of the Course:	To teach composition of foods, microbiological contamination of foods, methods of chemical, physical, microbiological and sensory analysis of foods, analysis methods of antibiotic and hormone residues, basic principles of food safety management systems.
19	Contribution of the Course to Professional Development:	It will provide an important competence to veterinarians who will work in the field of food in terms of solutions to problems that may be encountered within the scope of quality control and quality analysis.
20	Learning Outcomes:	
	1	Composition of foods,
	2	Microbial contamination of foods,
	3	Chemical and microbiological analysis of foods
	4	Physical and sensory analysis of foods
	5	Methods for determination of residues and contaminants in foods,
	6	Definition and importance of food safety,
	7	Management systems for food safety,
	8	Legal regulations related to food safety,
	9	
	10	
21	Course Content:	

	Course Content:	
Week	Theoretical	Practice
1	Composition of foods	Chemical analyses of foods (protein, ash and lipid analysis)
2	Chemical and physical analysis of foods	Chemical (moisture, salt and starch) and physical (pH, water activity) analyses of foods
3	Presence of microorganisms and contamination routes in foods	Yeast and mold counts in foods
4	Spoilage microorganisms in foods	TAMGC counts in foods
5	Pathogenic microorganisms causing the foodborne diseases	Determination of total coliforms in foods
6	Sampling and preparing for analysis of foods	Determination of E. coli in foods
7	Microbiological analysis techniques	Determination of the counts of total staphylococcus-micrococcus and coagulase-positive S. aureus in foods
8	Sensory evaluation methods of foods	Microbiological analysis of waters by MPN method
9	Antibiotic residues and analysis methods in foods	Chemical analyses of water
10	Hormone residues and analysis methods in foods	Determination of freshness in eggs
11	Technological applications for food safety	Preparation of a food analysis report
12	Basic principles of food safety management systems	Food safety quality control systems-I
13	Criteria and evaluation of Turkish Food Codex	Food safety quality control systems-II
14	Design of food quality control laboratory	Food safety quality control systems-III
22	Textbooks, References and/or Other Materials:	1.Altuğ T. Gıda kalite kontrolü., Ege Üniversitesi Basım evi, İzmir, 2000. 2.Göktan D., Tunçel G. Gıda güvenliği uygulamaları, 2012. 3.Altuğ T., Elmacı Y., Demirağ K. Gıda kalite sağlama, Sidas yayıncılık, 4.Başoğlu F. Gıda kalite kontrolünün esasları ve gıda güvenliği yönetim sistemleri, Dora Basım Yayın, Bursa 2011. 5.Topal Ş. Gıda Güvenliği ve Kalite Yönetim Sistemleri TÜBİTAK, Kocaeli, 1996. 6.Karaali, A. Gıda İşletmelerinde HACCP Uygulamaları ve Denetim.T.C. Sağlık Bakanlığı. Ankara, 2003.
23	Assesment	

TERM LEARNING ACTIVITIES	**NUMBER**	**WEIGHT**
Midterm Exam	0	0.00
Quiz	0	0.00
Home work-project	0	0.00
Final Exam	1	100.00
Total	1	100.00

Contribution of Term (Year) Learning Activities to Success Grade	0.00
Contribution of Final Exam to Success Grade	100.00
Total	100.00
Measurement and Evaluation Techniques Used in the Course	In order to determine the knowledge and skills of the students in the field of Food Quality Control System and Analysis Methods, the measurement activity is carried out as a final exam in written form.

24 ECTS / WORK LOAD TABLE

Activites	Number	Duration (hour)	Total Work Load (hour)
Theoretical	14	1.00	14.00
Practicals/Labs	14	2.00	28.00
Self study and preperation	14	3.00	42.00
Homeworks	14	3.00	42.00
Projects	14	2.00	28.00
Field Studies	0	0.00	0.00
Midterm exams	0	0.00	0.00
Others	0	0.00	0.00
Final Exams	1	1.00	1.00
Total Work Load			155.00
Total work load/ 30 hr			5.17
ECTS Credit of the Course			5.00

25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS

	PQ1	PQ2	PQ3	PQ4	PQ5	PQ6	PQ7	PQ8	PQ9	PQ10	PQ11	PQ12	PQ13	PQ14	PQ15	PQ16
ÖK1	4	4	5	4	5	4	3	4	2	3	0	0	0	0	0	0
ÖK2	5	3	4	4	2	2	3	4	2	3	0	0	0	0	0	0
ÖK3	2	3	4	4	3	5	2	2	2	2	0	0	0	0	0	0
ÖK4	3	5	3	5	2	2	4	2	3	2	0	0	0	0	0	0
ÖK5	5	4	3	3	3	3	2	3	3	2	0	0	0	0	0	0
ÖK6	3	5	4	4	5	3	2	1	2	1	0	0	0	0	0	0
ÖK7	3	3	3	2	3	1	4	2	4	5	0	0	0	0	0	0
ÖK8	3	4	5	5	2	1	1	1	2	3	0	0	0	0	0	0

LO: Learning Objectives PQ: Program Qualifications

Contribution Level:	1 very low	2 low	3 Medium	4 High	5 Very High