COURSE OUTLINE

1. GENERAL

SCHOOL	AGRICULTURAL SCIENCES		
ACADEMIC UNIT	FOOD SCIENCE AND TECHNOLOGY		
LEVEL OF STUDIES	UNDERGRADUATE		
COURSE CODE	**FST_500**	**SEMESTER OF STUDIES**	5th
COURSE TITLE	FOOD SAFETY		

INDEPENDENT TEACHING ACTIVITIES *if credits are awarded for separate components of the course, e.g. lectures, laboratory exercises, etc. If the credits are awarded for the whole of the course, give the weekly teaching hours and the total credits*	**WEEKLY TEACHING HOURS**	**CREDITS**
Lectures and practice/tutor seminars	4	5
Add rows if necessary. The organisation of teaching and the teaching methods used are described in detail at (d).		

COURSE TYPE *general background, special background, specialised general knowledge, skills development*	specialised general knowledge
PREREQUISITE COURSES:	Typically, there are not prerequisite course.
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek.
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBSITE (URL)	

2. LEARNING OUTCOMES

Learning outcomes
The course learning outcomes, specific knowledge, skills and competences of an appropriate level, which the students will acquire with the successful completion of the course are described.
Consult Appendix A

- *Description of the level of learning outcomes for each qualifications cycle, according to the Qualifications Framework of the European Higher Education Area*
- *Descriptors for Levels 6, 7 & 8 of the European Qualifications Framework for Lifelong Learning and Appendix B*
- *Guidelines for writing Learning Outcomes*

The course is a compulsory introductory lesson on the concepts of food safety, food microbiology principles, quality control and HACCP principles.

The subject matter of the course aims at introducing students to good practice and hygiene during the production, processing, standardization and distribution of various agricultural products and foodstuffs. The necessary Community legislative and preventive hygiene control measures are presented at all stages of production, marketing and use of food, in order to ensure the production and processing of agricultural products and foodstuffs suitable for public health. Introduction to quality assurance systems is presented and HACCP basic principles are explained by analyzing examples of HACCP application in processing and standardization of agricultural products.

Upon successful completion of this course the student will be able to:

- understand the basic principles of food microbiology.
- understand the key and critical features of good practice and hygiene at all stages of production and standardization of the various agricultural products and foodstuffs.
- know the basic principles of quality control to ensure public health.
- identify key microbiological, physical and chemical hazards both in primary production and in the processing, preservation, storage and handling of food.
- understand the role of traceability, quality control and packaging in the safety of agricultural products and foodstuffs.
- apply HACCP to a food processor not as a simple safeguard but as an integrated tool to minimize all the risks and make the food produced 100% safe.
- understand that the implementation of HACCP covers all sectors of the food industry from cultivation, harvesting and processing of raw materials to the distribution and consumption of food.

General Competences

Taking into consideration the general competences that the degree-holder must acquire (as these appear in the Diploma Supplement and appear below), at which of the following does the course aim?

Search for, analysis and synthesis of data and information, with the use of the necessary technology	*Project planning and management*
Adapting to new situations	*Respect for difference and multiculturalism*
Decision-making	*Respect for the natural environment*
Working independently	*Showing social, professional and ethical responsibility and sensitivity to gender issues*
Team work	*Criticism and self-criticism*
Working in an international environment	*Production of free, creative and inductive thinking*
Working in an interdisciplinary environment	*……*
Production of new research ideas	*Others…*
	…….

Generally, by the end of this course the student will have develop the following general abilities (from the list above):

Autonomous (Independent) work
Adapting to new situations
Promotion of free, creative and inductive thinking
Respect for the food safety
Project planning and management

3. SYLLABUS

Introduction to Food Safety, Basic principles of food microbiology, Food poisoning, Chemical and Physical hazards, Primary Production Safety, Safety in processing and maintenance of food, Safety and Hygiene of Food Processing Facilities (Good Hygiene and Training of Personnel of Food Industries, Food safety in the marketing and handling, Community legislative framework, notification mechanisms and quality control of agricultural product safety, Introduction to Quality Assurance Systems-HACCP Basic Principles, Implementation of Risk Analysis in Critical Control Points in Agricultural Products Quality Control in Food Safety (description of basic analytical methods of quality control)

4. TEACHING and LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Lectures face to face.
USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	Use of Information and Communication Technologies (ICTs) (e.g. powerpoint) in teaching. The lectures content of the course for each chapter are uploaded on the internet, in the form of pdf files, where from the students can freely download them using a password which is provided to them at the beginning of the studies.
TEACHING METHODS The manner and methods of teaching are described in detail. Lectures, seminars, laboratory practice, fieldwork, study and analysis of bibliography, tutorials, placements, clinical practice, art workshop, interactive teaching, educational visits, project, essay writing, artistic creativity, etc. The student's study hours for each learning activity are given as well as	

Activity	Semester workload
Lectures (3 conduct hours per week x 13 weeks)	39
Seminars (1 conduct hour per week x 13 weeks)	13
work on an assignment	16
Final examination (3 conduct hours)	3
Hours for private study of the student	54
Total number of hours for the Course (25 hours of work-load per ECTS credit)	**125 hours** (total student work-load)

the hours of non-directed study according to the principles of the ECTS	
STUDENT PERFORMANCE EVALUATION *Description of the evaluation procedure* *Language of evaluation, methods of evaluation, summative or conclusive, multiple choice questionnaires, short-answer questions, open-ended questions, problem solving, written work, essay/report, oral examination, public presentation, laboratory work, clinical examination of patient, art interpretation, other* *Specifically-defined evaluation criteria are given, and if and where they are accessible to students.*	1. Written examination after the end of the semester. The mark constitutes the 75% of the final grade ($G_{75\%}$). 2. Assignment provided during the term. The mean mark constitutes the other 25% of the final grade ($G_{25\%}$). The final grade for the course is calculated by the final grade in the assignment (25%) and the grade of the final written examination (75%).

5. ATTACHED BIBLIOGRAPHY

- Suggested bibliography:

-Προτεινόμενη Βιβλιογραφία :

1. "Foods: Food Control, Food Safety and Food Microbiology", Proestos Ch., Markaki P., Da Vinci Publishing, Athens 2017.
2. "Food/Drinks Quality and Safety", Tsaknis J., Tziolas Publishing, Athens 2018.
3. "Food Safety", Arvanitogiannis J., University Studio Press, Thessaloniki 2005.

- Related academic journals: