COURSE OUTLINE

1. GENERAL

SCHOOL	AGRICULTURAL SCIENCE		
DEPARTMENT	FOOD SCIENCE AND TECNOLOGY		
LEVEL OF COURSE	UNDERGRADUATE		
COURSE CODE	**FST_505**	**SEMESTER OF STUDIES**	Winter (5^{TH})
COURSE TITLE	Technology & Quality Control of Food of Plant Origin I		

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**	**ECTS CREDITS**
Lectures	3	
Exercises	2	
Total	**5**	**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*	Scientific Area / Special Background / Skills Development
PREREQUISITE COURSES:	None
LANGUAGE OF INSTRUCTION and EXAMINATIONS:	Greek.
IS THE COURSE OFFERED TO ERASMUS STUDENTS	No
COURSE WEBPAGE (URL)	https://eclass.upatras.gr

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 purpose of this course is to give students the basic knowledge in the field of Technology of Foods of Plant Origin, which specifically refers to fruits, vegetables, and grains. Special importance is given to the composition of the raw materials and the technological methods of processing, as well as to the how the organoleptic characteristics, safety and nutritional value of the above products are affected.

After successful completion of the course, the students will be able to use the knowledge they have acquired at a professional level in the field of fruits, vegetables and grain production and processing, while at the same time, they will have skills useful in managing and solving problems that may arise during the production and processing of the above herbal products.

Also, students will be able to share information, ideas, problems, and solutions related to the subject of technology of foods of plant origin to both specialist and non-specialist audiences. Finally, they will have developed acquisition skills knowledge with significant autonomy that will allow them to continue and deepen their studies.

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	*Search for, analysis and synthesis of data and information, with the use of the necessary technology*
Adapting to new situations	*Adapting to new situations*
Decision-making	*Decision-making*
Working independently	*Working independently*
Team work	*Team work*
Working in an international environment	*Working in an international environment*
Working in an interdisciplinary environment	*Working in an interdisciplinary environment*
Production of new research ideas	*Production of new research ideas*

The general skills that the students of the Department of Food Science and Technology should have acquired and that the course is aimed at are:

- *Search, analyze and synthesize data and information, using the most necessary technologies.*
- *Decision making.*
- *Autonomous work.*
- *Teamwork.*
- *Promotion of free, creative and inductive thinking.*

3.SYLLABUS

- Packaging and storage of fruits and vegetables.
- Fruit and vegetable processing.
- Fruit juices.
- Jam making technology.
- Industrial tomato processing.
- Frozen fruit and vegetable production technology.
- Cereal technology.
- Milling of wheat and properties of produced flours.
- Bakery technology.
- Preparation of gluten-free pastries.
- Technology and preparation of confectionery products.

Laboratory exercises

- Determination of free acidity and sugar content of fruit juices.
- Determination of ascorbic acid (vitamin C) in fresh squeezed and commercial fruit juices: Control of the effect of light and heat treatment in the content of ascorbic acid.
- Determination of moisture and gluten content in wheat flour.
- Determination of moisture, free acidity and effective acidity in bread.
- Qualitative determination of glucose in commercial jams.
- Determination of sodium chloride (salt) in tomato pounds.

4.TEACHING AND LEARNING METHODS - EVALUATION

DELIVERY *Face-to-face, Distance learning, etc.*	Lectures, seminars and laboratory work face to face.

USE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY *Use of ICT in teaching, laboratory education, communication with students*	- Electronic communication with students. - Support of learning teaching using slides. The lectures content of the course for each chapter are uploaded on the internet, in the form of a series of .pdf files, where students can freely download them from the platform e-class.upatras.gr
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 the hours of non-directed study according to the principles of the ECTS*	

Activities	***Work Load per semester***
Lectures (3 hours per week x 13 weeks)	39
Individual work on a case study/Topics related to Technology and Quality control of foods of plant origin according to the literature	58
Laboratory exercises	16
Writing lab assignments exercises	12
Total number of hours for the Course (25 hours of work-load per ECTS credit)	**125**

Σχόλιο [ΧτW1]: Αυτά διαμορφώνονται ανάλογα με το μάθημα

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.*	The evaluation of the students is done with a written final exam (evaluation) after the end of the semester (100%) in Greek which includes: i) Written exam at the end of the semester with questions of critical thinking, ii) Short answer questions and/or multiple-choice questions options, or a combination of the above, iii) Evaluation of laboratory work. Grading scale: 1 to 10. Minimum passing grade: 5. Examination time: 3 hours.

5. **ATTACHED BIBLIOGRAPHY**

-KARAOULANIS G.D. 2007. FRUIT PROCESSING TECHNOLOGY, STAMOULIS PUBLICATIONS SA, ATHENS.

Related Scientific Journals

1. Food Chemistry,
2. Food Research International,
3. European Food Research and Technology
4. Plant Foods for Human Nutrition