**MODULE LAYOUT**

1. **GENERAL**

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| **SCHOOL** | FOOD, BIOTECHNOLOGY AND DEVELOPMENT  |
| **DEPARTMENT** | FOOD SCIENCE AND HUMAN NUTRITION  |
| **STUDY LEVEL** | *Undergraduate*  |
| **MODULE CODE** | **271** | **SEMESTER** | 7th  |
| **MODULE TITLE** | PRINCIPLES IN FOOD INDUSTRY |
| **INDEPENDENT TEACHING ACTIVITIES** | **WEEKLY TEACHING HOURS** | **ECTS** |
| **Theory:** Lectures | 3 | 5 |
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| **COURSE TYPE** | Background and General knowledge |
| **PREREQUISITES** |  |
| **LANGUAGE** | Greek |
| **IS THE COURSE OFFERED for ERASMUS STUDENTS?** | Yes (in English) |
| **COURSE WEB PAGE** | <https://mediasrv.aua.gr/eclass/courses/AOA256/> |

1. **LEARNING OUTCOMES**

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| **Learning Outcomes** |
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| This module aims to introduce students to Food Science and Technology. In particular: * Introduces the basic knowledge and principles of food science and the technologies linked with the production of safe and nutritious, fresh or processed foods.
* Describes the main food process technologies (drying, freezing, thermal processing).

Upon successful completion of the course the student:* Will have knowledge and understanding of key issues and the latest developments in Food Science and Technology.
* Has acquired the ability to understand complex concepts and to be informed about developments in the field of Food Science and Nutrition.
* Will be able to formulate and express opinions on Food Science and Nutrition issues to multiple recipients such as the scientific community of other disciplines, the Food Industry, professionals of the particular field, society.
* Has acquired communication skills on Food and Nutrition.

The knowledge, scientific abilities and skills that students will have acquired with this introductory course can be led, if they wish, to postgraduate studies in the particular or related scientific subjects. |
| **General Competenses** |
| * Retrieve, analyze and synthesize data and information, with the use of necessary technologies
* Adapt to new situations
* Work autonomously
* Work in an interdisciplinary environment
* Future research
* Respect diversity and multiculturalism
* Respect natural environment
* Demonstration of social, and moral responsibility and sensitivity to gender issues
* Be critical and self-critical
* Advance free, creative and causative thinking
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1. **MODULE CONTENT**

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| 1. **General Part**
2. Introduction to foods
3. The main chemical components of foods
4. Food Quality
5. Food processing and preservation methods
6. **Special part - Food processing**
7. Fruits and Vegetables
8. Cereals and cereal products
9. Potatoes
10. Sugars
11. Wine
12. Olives and Olive oil
13. Vegetable oils and edible fats
14. Milk and dairy products
15. Meat and poultry
16. Fish
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1. **TEACHING and LEARNING METHODS - Evaluation**

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| **TEACHING METHOD** | Teaching in the auditorium using supervisory teaching aids (ppt, Video, slides) |
| **USE OF INFORMATICS and COMMUNICATION TECHNOLOGIES** | Communication with students via open e-class platform and e-mail.  |
| **TEACHING ORGANISATION** |

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| ***Activity*** | ***Φόρτος Εργασίας Εξαμήνου*** |
| Lectures | (13x3) **39 hours**  |
| Group and/or individual works | 42 hours |
| Work presentation | 15 hours |
| Individual study | 2x13=26 hours |
| Final exam | 3 hours |
| ***Total contact hours and training***  | ***125 hours*** |

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| **STUDENTS EVALUATION** |  Exam language Greek (or English language for Erasmus students), which may include Multiple choice test, Questions of brief answer, Questions to develop a topic, Judgment questions.Student assessment:A) Each student undertakes to prepare 1 research bibliographic work on the subjects of the course during the semester. These tasks give 30% of the final grade.At a set time at the end of the semester, the student develops the topic with sufficient bibliography, which he / she presents in PowerPoint to all his / her colleagues, under the supervision of the responsible professor. The writing and presentation of this work gives the student 70% of the final grade of the course.B) I. Written final examination which includes:Multiple choice questionsShort answer questionsQuestions to develop a topic Judgment questionsGives the student 100% of the final grade of the course**Marking Scale:** 0-10.**Minimum Passing Mark:** 5.  |

1. **BIBILIOGRAPHY**

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| ***-Proposed Literature:**** Food Chemistry, Belitz, H.-D., Grosch, W., Schieberle, P., Springer
* ΑΡΧΕΣ ΤΕΧΝΟΛΟΓΙΑΣ ΤΡΟΦΙΜΩΝ, ΚΙΟΣΕΟΓΛΟΥ ΒΑΣΙΛΕΙΟΣ, ΜΠΛΕΚΑΣ ΓΕΩΡΓΙΟΣ, Εκδότης ΓΑΡΤΑΓΑΝΗΣ ISBN13 9789609828857
* Τεχνολογίες επεξεργασίας και συσκευασίας τροφίμων Αρβανιτογιάννης Ιωάννης Σ. , Στρατάκος Αλέξανδρος Χ. Εκδότης: University Studio Press, ISBN: 9789601220161

***-Related Scientific Journals:**** Journal of Agricultural and Food Chemistry,
* Journal of Food Science and Technology,
* Agricultural and Environmental Chemistry,
* International Journal of Agricultural and Food Research (IJAFR)
* Journal of Food Processing & Technology
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