

COURSE ID SHEET



Course No. **5303**

NTUA

Semester: **6** Core **X** Elective Specialization

Title: **FOOD SCIENCE AND TECHNOLOGY**

Aim: The course provides the fundamentals on food as a complex material (composition, structure, properties), on food chemistry, microbiology, quality and safety. It includes the main processes and especially thermal process, chilling and freezing of foods not covered by other chemical engineering courses as well as introduction to food packaging.

Content:

- Introduction to Food Technology. Food as a complex material: composition, structure, properties
- Food Chemistry–main components
- Food Chemistry–main components
- Food Chemistry–minor components (vitamins, minerals etc.)
- Food Microbiology fundamentals-safety
- Food Microbiology fundamentals-spoilage
- Kinetic principles of chemical and biological reactions in food processes
- Chilling
- Freezing
- Thermal processes
- Packaging

Hours per semester:	LECTURES	39	EXERCISES	-	LABORATORY	-	HOME-WORK	51	TOTAL HOURS: 90
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Student performance/evaluation:

The evaluation of the students will be done through:

- A Final (written) Examination (FE).
- Homework exercises and case studies (EX).

The Final Grade results as follows: Final Grade = 0.70 x (FE) + 0.30 x (EX)