

Code: 1798 Food Microbiology and Safety**Degree:** 2nd cycle – Gastronomical Sciences**Curricular Year:** 1st**Semester Course:** 1st**Credits:** 4 ECTS**Compulsory****Language:** Portuguese/English**Responsible:** Manuel José de Carvalho Pimenta Malfeito Ferreira**Other lecturer(s):** -**Web Site:** <http://www.isa.utl.pt/home/node/4329>**1. Contact hours:****Lectures 21 Lecture/Practicals 14 Praticals 14 Others 7 Total 56****2. Objectives:**

- To introduce the fundamental principles of food safety and preservation;
- To study the key features of main pathogenic agents;
- To understand the fundamentals and practices of hygiene in food industry;
- To study the fundamentals of food microbiological analysis and perspectives of its evolution;
- To interpret the analytical results and evaluate the microbiological quality of foods;
- To understand the requirements of food safety assurance systems.

3. Programme:

The importance of foodborne diseases.
Effects of the pathogenic agents: intoxication and infection.
The pathogenesis of diarrhoea disease.
The oral/faecal route of contamination.
Pathogenic bacteria, viruses and prions.
Food preservation.
Microbiological analysis of foods and surfaces.
Microbiological indicators.
Principles and practices of Hygiene.
Systems of food safety assurance.

4. Bibliography:**Main Bibliography**

- Jay, J.M. (1996) - Modern Food Microbiology, 5th edition. Food Science Texts
- Adams, M.R. e Moss, M.D. (1995) - Food Microbiology. The Royal Society of Chemistry, Cambrigde
- Mossel, D.A. e Garcia, B.M. (1985) – Microbiologia de los Alimentos. Editorial Acribia. Zaragoza
- Hayes S, P.R. (1985) - Food Microbiology and Hygiene. Elsevier Applied Science Publishers. London New York.

5. Assessment:

Frequency: presence in 75% of all classes, result as admitted or not admitted to final exam.
Continuous evaluation: two short tests during the practical classes.
Final Exam: over all topics. Final grade composed by 80% of the exam grade and 20% of the tests.

6. Estimated Workload:

112	Hours
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7. Last Update:

3/1/2011
