Code: 1647 **Sensory Analysis**
Degree: 1st cycle – Food Science and Engineering
Curricular Year: 2nd **Semester Course: 1st**
Credits: 6 ECTS **Compulsory**
Language: Portuguese/English
Responsible: Maria Suzana Leitão Ferreira Dias Vicente
Other lecturer(s): Jorge Manuel Rodrigues Ricardo da Silva and António Pedro Louro Martins
Web Site: http://www.isa.utl.pt/home/node/4032

1. Contact hours:
Lectures 28 **Practicals/Laboratory** 42 **Others** 14 **Total** 84

2. Objectives:

To understand the importance of Sensory Analysis for product characterization and development. To learn how to select and train the assessors to participate in an analytical panel. To learn how to design sensory analysis experiments in order to achieve exact and accurate results. To learn how to handle and interpret sensory data. To know the specificities of the sensory analysis concerning some products: virgin olive oil, wines, cheese and butter. To know the interface Sensory Analysis /Instrumental Analysis for determination of Texture and Consistency of Foods.

3. Programme:

The sensory quality of foods. The physiology of sensations. The need to make objective the sensory analysis: the establishment of a Panel Test (different panel types, selection and training of assessors, statistical analysis of sensory results). Some case-studies: origin of the organoleptic properties and sensory evaluation of virgin olive oil, wines, cheese and butter. Texture and Consistency evaluation on solid and liquid foods. Rheology/Sensory analysis Interface. Principal methods: Texture Profile Analysis (TPA) and Sensory perception zone of the viscosity of liquid fluids. The texturometer and the rotational viscometer, respective parameters. Tasting templates and scales. Correlation between sensory and instrumental results.

4. Bibliography:

Main Bibliography

ACTIA (1999), *Évaluation Sensorielle- Guide de Bonnes Pratiques,*(D. Majou, coordenador).

Lawless, H.T, Klein, B.P. (1991), *Sensory Science. Theory and Applications in Foods*, IFT Basic Symposium Series, Marcel Dekker, Inc., New.

Angerosa, F. (2000), Sensory quality of olive oils, *In: Handbook of Olive Oil- Analysis and Properties*, (J. Harwood, R. Aparício, eds.), Aspen Publishers Inc., Gaithersburg, Maryland, pp. 355- 392.

CIDIL (1995) *L'évaluation sensorielle appliquée aux produits laitiers*. CIDIL, Les Produits Laitiers. Paris.

Bérodier, F. *et al*. (1997), *Guide to the smell, aroma and taste evaluation of hard and semi-hard cheeses*. AIR 2039, G.E.CO.TE.F.T. Poligny.

Fortin, J., Desplancke, C. (1998) *Guide d'entraînement d'un jury de dégustation*. La Fondation des Gouverneurs e Edisem, Canada.

Lavanchy, P. *et al*. (1994), *A guide to the sensory evaluation of texture of hard and semi-hard cheeses*. INRA.

Mahaut, M.; Jeantet, R.; BRULÉ, G., Schuck, M. (2000), *Les produits industriels laitiers*. Éd. Tec & Doc, Lavoisier.

Eder, R. (2006) – *Defectos del vino : reconocimiento, prevención, corrección,* Acribia, Zaragoza, España

Jackson, R. (2002) – *Wine tasting: a professional handbock*, Academic Press, San Diego, CA

Rosenthal, A.J. (1999). Food Texture: Measurement and perception. A. Chapman & Hall Food Science Book. Aspen publishers.

5. Assessment:

A simple project in the field of the sensory analysis (30% of the mark) and a written exam (70% of the final mark).

6. Estimated Workload: 168 Hours

7. Last Update: 12/7/2010