Beverages and Foods of Plant Origin

Code: 103978  
ECTS Credits: 6

<table>
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<th>Degree</th>
<th>Type</th>
<th>Year</th>
<th>Semester</th>
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<td>OT</td>
<td>4</td>
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</table>

Contact

Name: Josep Yuste Puigvert  
Email: Josep.Yuste@uab.cat

Use of Languages

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

Teachers

Marta Capellas Puig

Prerequisites

The student should have done the courses Métodes de processament d'aliments I and II of third year.

Objectives and Contextualisation

Begudes i aliments d'origen vegetal is the application of knowledge achieved mainly in Métodes de processament d'aliments I and II.

It integrates and gives you knowledge about working of industries of beverages and foods of plant origin, from raw material receipt to final product storage.

Competences

- Analyse, summarise, resolve problems and make professional decisions.
- Apply the principles of processing techniques and evaluate their effects on the quality and safety of the product.
- Develop individual learning strategies and planning and organisation skills.
- Search for, manage and interpret information from different sources.
- Show understanding of the mechanisms by which raw materials deteriorate and the reactions and changes that take place during storage and processing, and apply the methods for controlling this.

Learning Outcomes

1. Analyse, summarise, resolve problems and make professional decisions.
2. Apply the technological processes that are specific to milk and dairy products, meat and meat derivatives, fish products, egg products and vegetable products, and understand the modifications to the final product that these processes make.
3. Design complex processes in accordance with the established quality criteria.
4. Develop individual learning strategies and planning and organisation skills.
5. Foresee and solve problems that are specific to the food industries.
6. Search for, manage and interpret information from different sources.
7. Select food conservation methods that slow down deterioration.
8. Select processes of conservation, transformation, transport and storage that are suited to foods of animal and plant origin.

Content

Theoretical classes


Practical classes

A) VISITS TO FOOD INDUSTRIES

B) LABORATORY: Gelatinisation and microscopy and sensory identification of starches

C) TALKS:

- “The challenge of Gallina Blanca creams"
- “The experience of a CTA-graduated in a distribution giant"
- “Creation and application of flavours in the food industry"

D) FOOD MANUFACTURE IN PROCESSING PLANT:
• Bread
• Tiger nut milk

E) MULTIMEDIA:

• Olives and virgin olive oils

F) SEMINARS: exposition, discussion and evaluation of reports.

Methodology

Methodology:

• Theoretical classes: the student will achieve the basic contents of the course; exercise resolution is included, and also the correction of three self-learning brief exercises which are previously and individually solved.

• Practical classes: they complete and reinforce knowledges achieved in theoretical classes.
  Visits (and talks) bring the student near to the professional sector, and thus allow him/her to know problems occurred in a food industry and tasks that he/she will do there in the future.
  Laboratory and processing plant activities allow the student to achieve skills and understand experimental concepts; the student will have guide notes containing aim, basis, methodology and results section.
  Seminars (talks, multimedia, reports): to complete and go in depth in theoretical contents, by analysing information, solving questions, and discussing and exchanging ideas and knowledges.

• Tutorials: to inform about content and working of the course; to clarify concepts and solve doubts; to evaluate the students.

Materials used in the course are in Moodle platform: legislation, presentations showed in theoretical classes, guide notes and other documents used in practical classes, multimedia, supplementary information, photos, grades.

Activities

<table>
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<tr>
<th>Title</th>
<th>Hours</th>
<th>ECTS</th>
<th>Learning Outcomes</th>
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<td>1, 2, 6, 4, 3, 5, 8, 7</td>
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<td>Multimedia</td>
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<td>Processing plant</td>
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<td>2, 3, 5, 8, 7</td>
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<td>Self-learning brief exercises</td>
<td>2</td>
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Assessment

The following will be evaluated:

- Attendance to theoretical classes: 10%.
- Attendance to practical classes: 30%.
- Report: 19%. Students will write and present a report in groups.
- Self-learning brief exercises: 6%. Students will solve individually three exercises, which will be corrected and discussed in the lecture room.
- Exam: 35%. In the end of semester, the student will do, in writing, an exam (containing test and short questions).

Assessment Activities

<table>
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<tr>
<th>Title</th>
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<th>Hours</th>
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Bibliography

Coffee and cocoa


Cereals and their products


* Cauvain, SP, LS. Young. 2002. Fabricación de pan. Acribia, Zaragoza


**Fruits and vegetables, and fruit juices**

* Ashurst, PR. 1999. Producción y envasado de zumos y bebidas de frutas sin gas. Acribia, Zaragoza


Oils and fats


* Erhan, SZ. 2005. Industrial uses of vegetable oils. AOCS Press, Champaign, Illinois, USA


* Graciani, E, MP Pérez, MV Ruiz. 2012. Los aceites y grasas. Refinación y otros procesos de transformación industrial. AMV Ediciones, Madrid


* Madrid, A. 2016. El aceite de oliva. Tecnología, análisis sensorial y denominaciones de origen. AMV Ediciones, Madrid


* Vera, M. 2011. Aceite de oliva virgen extra. Su obtención y conservación. AMV Ediciones, Madrid

Waters and soft drinks (also see "Fruits and vegetables, and fruit juices")
* Mitchell, AJ. 1990. Formulation and production of carbonated soft drinks. Blackie and Son, Glasgow, United Kingdom


* Senior, DAG, PR Ashurst. 2001. Tecnología del agua embotellada. Acribia, Zaragoza


* Tampo, D. 1999. Aguas envasadas. Limusa, Mexico, DF, Mexico


Other impulse channel products

* Asociación Española del Dulce (Producé): http://producel.com

* Asociación de Fabricantes de Aperitivos (AFAP): https://www.afap-aperitivos.com