

Academic Year/course: 2021/22

30826 - Industrial Cooking and Collective catering

Syllabus Information

Academic Year: 2021/22

Subject: 30826 - Industrial Cooking and Collective catering

Faculty / School: 105 - Facultad de Veterinaria

Degree: 568 - Degree in Food Science and Technology

ECTS: 6.0

Year: 3

Semester: Second semester

Subject Type: Compulsory

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The learning process that is designed for this subject is based on the following:

The course is structured in 26 lectures participatory, 7.5 hours 26.5 hours seminars and laboratory practices and visits organized in small groups to central kitchens, as well as a joint visit to a delicatessen industry.

Regarding participatory lectures, it is scheduled for delivery in advance the documentation for each subject so that the student's review in detail before the corresponding class. In addition, students will find in the ADD presentations classes, protocols practices, additional supporting material, a discussion forum, a section of "news" and continuous assessment tests once made.

The practice sessions will take place in 4 hours. company visits and / or collective restoration will take place. The seminars will be conducted in sessions of 2 hours and in them videos are screened, topical issues are discussed and prestigious professionals in the field of Culinary Technology, industrial cooking and catering, which transmit be invited to students their personal experiences and establish a discussion with them to address their concerns. An important part of the materials handled students in the seminars will be in English.

Students must follow the regulations described in:

- Prevention: A guide for students at the University of Zaragoza:
https://uprl.unizar.es/sites/uprl.unizar.es/files/archivos/Procedimientos/guia_preventiva_para_estudiantes.pdf
- Manual de seguridad en los laboratorios de la Universidad de Zaragoza y normas marcadas por la Unidad de Prevención de Riesgos Laborales:

https://uprl.unizar.es/sites/uprl.unizar.es/files/archivos/Procedimientos/manual_de_seguridad_en_los_laboratorios_de_la_

<https://uprl.unizar.es/inicio/manual-de-procedimientos>

In addition, students will follow as well any instructions related to biosecurity given by the professor

4.2. Learning tasks

The course includes the following learning tasks:

- Lectures
- Practice sessions (4 hours)
- Seminars (2 hours)
- Visits to companies and institution kitchens mass catering (ARAMARK; SERAL; COMBI-CATERING Miguel Servet Hospital) and an industry of prepared meals (TUROLINNOVA).

4.3. Syllabus

The course will address the following topics:

Lectures

TOPIC I: General Aspects (2 hours of teaching).

Kitchen kitchen home and business. Concepts and objectives of the culinary technology. The industrial cooked. Collective restoration. chemical and physical processes in the culinary processes.

TOPIC II: The culinary technology and kitchen (3 hours).

Culinary effects on the major nutrients and organoleptic characteristics of food techniques. Kitchenware and industrial equipment. culinary space and organization of industrial kitchen. Cooked and precooked industrial design, processes, equipment and facilities.

TOPIC III: The current Collective restoration (3 hours).

Catering and delayed restoration. Special features and technological needs of the collective and delayed restoration. Distribution and storage systems: hot, refrigerated, frozen. , Regeneration systems. Equipment and facilities.

TOPIC IV: Culinary Techniques (12 hours).

Additional culinary operations: selection, cleaning, and division. Cooking processes: cooking in aqueous medium, air cooking, cooking fat medium, microwave cooking, vacuum cooking, mixed cooking. Bonding operations, fillers and coatings. Preparation of sauces and broths. Masses of bakery.

TOPIC V: Hygiene and dietary aspects in collective social restoration (6 hours).

Hygienic design of kitchens and dining facilities. Elements of food hygiene in catering. Preparation and dietary assessment of school menus for seniors and special (allergies and intolerances, vegetarian, cultural diversity and nutrition-related diseases).

Practice sessions (4 hours)

1. Dispersions: foams and emulsions

- a) Preparation and chemical fundamentals of preparing emulsions, foams and air. Know the different types of emulsions. Mounted clear, preparation of mayonnaise. Microscopic observation.
- b) Factors influencing the stability of an emulsion, emulsifying agents. Conditions required to achieve the stability of an emulsion. Experiments emulsion breaking and foams.

2. Hydrocolloids

Development of products with different hydrocolloids. Experimental verification of its solubilidad, gel-type forming and its compartment against heat. Elaborations: gelatin with gum carragenana with xanthan gum, pectins with.

3. Cooking and frying

- a) culinary operations for preparing vegetables cooked in boiling water, steamed under pressure and system vacuum. Cleaning, selection and size reduction. Vacuum packaging. Baking wet steam. Handling equipment. QA. Evaluation of the texture of cooked foods and measure its color. Microscopic observation and sensory analysis.
- b) The importance of the temperature and product size in frying.
- c) for preparing culinary batters for frying food operations. Comparison of different formulations of batter. Pre-floured, breading, frying and freezing.
- d) Assessment of the quality of frying oil. Determination of smoke point in different oils. Determining polar compounds in the frying oil.

4. Preparation mass

- a) Operations for the preparation of different types masses panarias, beaten, and pastry. Selection of ingredients, mixing, kneading, fermentation and baking. Handling equipment. Variations of the processes.
- b) Quality control. Evaluation of physico-chemical mass and final product characteristics. Sensory evaluation.

5. Development of menus in restaurants Using computer programs and web pages for the preparation and nutritional assessment of menus according to current dietary recommendations.

Seminars (2 hours)

- Seminar 1: prepared dishes
- Seminar 2: Reinventing the texture and flavor of food
- Seminar 3: Cooking vacuum
- Seminar 4: Heat, temperature and chocolate

Visits to companies and institution kitchens mass catering (ARAMARK; SERAL; COMBI-CATERING Miguel Servet Hospital) and an industry of prepared meals (TUROLINNOVA).

4.4. Course planning and calendar

The dates and key milestones of the subject are described in detail , along with other subjects of the third course in the Degree of Science and Food Technology, on the website of the Faculty of Veterinary Medicine (link: <http://veterinaria.unizar.es/gradocta/>). This link will be updated at the beginning of each academic year.

4.5. Bibliography and recommended resources

see spanish version