

## **68596 - Evaluation and teaching innovation and educational research in the specialist area of Chemical, Health, Agrarian Processes, etc.**

### **Información del Plan Docente**

<b>Academic Year</b>	2018/19
<b>Subject</b>	68596 - Evaluation and teaching innovation and educational research in the specialist area of Chemical, Health, Agrarian Processes, etc.
<b>Faculty / School</b>	107 - Facultad de Educación
<b>Degree</b>	371 - University Master's in Professional Development Teaching: Chemical, Sanitary, Personal Image, Agrarian, Maritime-Fishing, Food and Community Service Processes 415 -
<b>ECTS</b>	3.0
<b>Year</b>	XX
<b>Semester</b>	Indeterminate
<b>Subject Type</b>	Compulsory
<b>Module</b>	---

### **1. General information**

#### **1.1. Aims of the course**

The general objective of the subject is to initiate the students of the specialties of "Chemical Processes, Sanitary, Agrarian, Maritime-Fishing, Food, Community Services and Personal Image" of the Master in experiences of innovation and classroom research, that they can develop as professors in these subjects. This is the start of some tasks that should have continuity throughout their professional life, motivating them towards the concept of continuous improvement in the teaching activity.

They will also be presented with examples and good practices in evaluation and innovation projects launched in vocational training centers.

The students must:

- Design some activities to evaluate the teaching practice.
- Know and use some sources (journals, online publications) appropriate to this initial level in innovation and research.
- Analyze examples of innovation and research, appropriate to this level of training.
- Develop innovation activities (innovation project) or research in relation to Practicum III.

#### **1.2. Context and importance of this course in the degree**

This subject is part of Module 6 that is responsible for the training of students in specific competence 5. "Evaluation and improvement in teaching: Assess, innovate and investigate the teaching processes themselves in the objective of continuous improvement of his teaching performance and the educational task of the center. "

The evaluation, innovation and teaching research from this perspective, provides students with a necessary complement to their training, which should continue in their professional future.

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### **1.3.Recommendations to take this course**

As it appears in the memory of the Master, during the period of Practicum III students have to carry out an innovation project or educational research in the classroom. In order to carry it out, first of all they must learn to carry out evaluations of various aspects of their teaching practice, as a source of information for the start-up, then, of improvement projects, for which it is necessary to know the methodology that they should follow. This type of projects through the analysis of cases related to the corresponding subjects. Second, be able to analyze the principles and procedures for the implementation of an educational research project in the didactics of their subject.

Therefore, class attendance is recommended, participating actively in face-to-face sessions (group activities, seminars, debates and debates) and in tutorials.

### **2.Learning goals**

#### **2.1.Competences**

The student will be more competent to:

- Identify, recognize and apply innovative teaching proposals in the field of chemical, sanitary, agricultural, maritime-fishery, food, community service and personal image processes.
- Critically analyze the performance of teaching, good practices and guidance using quality indicators.
- Identify the problems related to teaching and learning in the field of specialties that appear in the title and propose alternatives and solutions.
- Recognize and apply methodologies and basic techniques of educational research and evaluation and be able to design and develop research, innovation and evaluation projects.

#### **2.2.Learning goals**

The student, to pass this subject, must demonstrate the following learning goals:

- Relate the teaching-learning models of the specialties of chemical, sanitary, agrarian processes, ... with the evaluation of processes and results in these subjects of Vocational Training.
- Analyze examples of evaluation in the vocational training specializations outlined and apply them to specific cases related to different approaches.
- Analyze some relevant problems for the teaching and learning of the specialties of Vocational Training, its interpretation and possible solutions proposed in the research.
- Identify and assess some differences and similarities between innovation and research projects in the previous specialties.
- Draw conclusions for direct or indirect application in the classroom, based on innovation and research projects.
- Prepare and make an oral presentation of an evaluation, innovation or research activity that could be applied in Practicum III.

#### **2.3.Importance of learning goals**

Evaluation is one of the essential elements of the teaching-learning processes. Therefore, both the innovation activities and the design of classroom research should contemplate different ways of evaluating, as well as diverse evaluation activities that take into account the different learning modalities of the students. The learning outcomes formulated above are related to each other.

The future teachers, in their initial training, should become familiar with these concepts and practices of innovation and research. From a professional perspective, the students of this subject must be motivated so that their future teaching activity is based on continuous improvement.

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### 3. Assessment (1st and 2nd call)

#### 3.1. Assessment tasks (description of tasks, marking system and assessment criteria)

The student must demonstrate that he has achieved the expected learning outcomes through the following assessment activities

A system of continuous evaluation is established in the tasks and / or activities that will be carried out in the classes and that are specified in the 3 following sections:

##### 1. Student's portfolio

The most relevant theories, models and principles are described in the student's portfolio, attaching bibliographic references and any other type necessary for deepening them, cases and examples of their application, reports of the various practical activities carried out, their evaluation and a critical analysis carried out by the student, including an evaluation of the feedback received in each of them.

##### 2. Innovation, evaluation or research project

Carry out a project of innovation, evaluation or research in any of the specialties in which the students demonstrate their competence to elaborate didactic proposals. It will preferably be done individually, but it can also be done as a group depending on its size and degree of difficulty. To carry out the project, the Learning-Service methodology will be followed.

##### 3. Oral presentation.

Preparation of a presentation (e.g. PowerPoint) or in its absence an expository script and oral defense of the innovation project. The students will have a maximum time of 15 minutes to perform the oral defense of the work. If presented as a group, the maximum time will be 20 minutes. The defense will be coevaluada by the rest of students.

Students who do not opt for continuous assessment, do not pass the subject by this procedure or want to improve their qualification, will have the right to take a global test, which will be fixed in the academic calendar. In continuous evaluation, the student will know his qualification at least three days before the global test so that he can choose to present himself to it (whether it is suspended, or if for other reasons he considers it appropriate), after giving notice to the person in charge of the subject.

The global evaluation test will have the following sections:

##### 1. Portfolio

It will consist of a reflexive analysis on the difficulties and specific characteristics of evaluation, innovation and educational research in the specialty, deepening in the innovative proposals of the VET curriculum, the current lines in innovation and research in the specialty and the criteria and methods for the evaluation of the programming and the teaching practice.

##### 2. Innovation project

Prepare, present and defend an innovation project in which it demonstrates its competence to elaborate didactic proposals, following the structure indicated in the Moodle Platform of the subject.

##### 3. Oral examination

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Question time, about the content and programmed learning activities, which will allow both a sampling of knowledge on the subject, and assess the skills that are treated in the subject. The global test will be based on the program of programmed learning activities.

The works will be presented through the Moodle Platform of the Digital Teacher Ring of the University of Zaragoza in any of the modalities.

### **Qualification criteria**

When opting for continuous evaluation, the specific weight assigned to each of the evaluation sections is as follows:

20% of the final grade corresponds to the student's portfolio.

50% of the final grade corresponds to the innovation, evaluation or research project.

30% of the final grade corresponds to the oral presentation (20% falls on the preparation of the presentation or the exhibition script and on the defense of the innovation project, and 10% corresponds to the peer assessment by the rest of the students).

Each section will be scored from 0 to 10. Although some work is done in a group, the members can obtain different grades. If the mark obtained in any of the previous sections is less than 4, the subject will be considered not passed, regardless of the grades obtained in the rest.

In order to be eligible for continuous assessment, the student must attend at least 80% of the sessions of the subject. If the student chooses the global test, the specific weight assigned to each of the evaluation sections is as follows:

20% of the final grade corresponds to the student's portfolio.

50% of the final grade corresponds to the innovation, evaluation or research project.

30% of the final grade corresponds to the oral presentation (20% falls on the preparation of the presentation or the exhibition script and on the defense of the innovation project, and 10% corresponds to the peer assessment by the rest of the students).

In case of presenting to the global test to improve, the higher grade obtained will always prevail.

Each section will be scored from 0 to 10. If the mark obtained in any of the previous sections is less than 4, the subject will be considered not passed, regardless of the grades obtained in the rest.

### **Evaluation criteria**

When evaluating the activities, the following aspects will be considered:

In the evaluation of the student's portfolio and the innovation, evaluation or research project, the following will be taken into account:

- Structure of the reports (coherent articulation of the different sections).
- Clarity and quality of the writing.
- Orthography.
- Correct use of the cited and referenced methods.
- Organization of the theoretical and practical contents developed.
- Materials and methods used.

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- Applicability of the designed proposals.
- Accuracy in determining available resources.
- Originality.
- Justification and argumentation of the decisions made.
- Assessment of the results obtained.
- Analytical, critical and self-critical capacity.

In the evaluation of the oral defense, the following will be taken into account:

- Presentation of the information in a clear, rigorous and in a logical sequence, that the audience can follow.
- Appropriate use of the established time (neither excess nor defect), managing to discuss all aspects of their work.
- Relevance and originality of the resources used (of good quality and increase the interest of the audience).
- Use of body language and voice (facial expressions and body language generate interest and enthusiasm on the subject, establish eye contact and is heard by the entire audience throughout the presentation).
- Justification and argumentation of the decisions made
- In the group exhibitions, the coordination between the different members that intervene.

Students will have a maximum exposure time of 15 minutes, except for groups of more than three people that will be 5 minutes maximum per student. All the presentations will be coevaluated by the rest of the students, and self-evaluated individually.

Following the rules of the University of Zaragoza, fraud or total or partial plagiarism in any of the evaluation tests will lead to the suspension of the subject with the minimum grade, in addition to the disciplinary sanctions that the center adopts, once informed by the faculty responsible for the subject.

Any student may be called to tutorship to fully or partially defend any of the evaluation tests presented in order to guarantee the original authorship and participation in all of them.

### **4.Methodology, learning tasks, syllabus and resources**

#### **4.1.Methodological overview**

An exhibition will be held on some current lines of innovation, evaluation and research in the Vocational Training specialties reviewed.

Pre-established guidelines will be provided to serve as a script for the development of an Innovation Project, individualized.

Examples and some innovation projects will be analyzed in class. Students, in groups, should draw applicable consequences in teaching

The students, individually and in groups, will elaborate different evaluation activities, depending on the didactic units that they have developed in other subjects or that they will apply in the practices.

Oral presentations will be made, individually and in groups, using the appropriate computer resources for this subject.

The exhibitions will be accompanied by on-screen presentations that include texts, graphics, images, videos, Web pages, etc.

#### **4.2.Learning tasks**

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On-site activities (30 hours). The sessions will be face-to-face.

All the activities are related to the contents that appear in the program.

Training activities and organization:

Theoretical classes: Theoretical master exposition: 1 ECTS

Individual work: 0.4 ECTS

Group work: Analysis and evaluation of proposals: 0.5 ECTS

Tutorials: individual and / or group orientation: 0.1 ECTS

Individual work, individual project: 1 ECTS

Resources used in the subject:

Computer resources and Internet access for material searches, innovation projects, research articles, videos, PowerPoint presentations, ...

Research journals, publications ...

Activities:

Exhibition and synthesis of contents

Analysis of texts, case studies, examples and projects

Debate in class.

Oral presentations.

Design of activities of various types related to the fundamental nuclei of the subject.

### **4.3.Syllabus**

- Innovative teaching proposals in the specialties reviewed. Basic concepts of research, innovation, evaluation.
- Innovative proposals of the FP curriculum
- European projects as instruments of innovation.
- Current lines in innovation and research in the FP specialties. Analysis of concrete experiences.
- Basic research and innovation methods and techniques: Qualitative, quantitative, action research.
- The role of the teacher and the teaching team in the innovation and research processes.
- Identification of problems related to teaching-learning in the mentioned specialties of FP. Approach of solutions.
- Designs of research, innovation and evaluation projects in the FP specialties that appear in the title.
- Teamwork in innovation, evaluation and research projects.
- Evaluation and analysis of the educational proposal, criteria and methods for the evaluation of the programming and teaching practice.
- Quality management models and their application to vocational training centers.

### **4.4.Course planning and calendar**

Sessions and the dates of presentation of activities and works will be published in the Digital Teacher Ring (Moodle Platform).

Students will have the materials, activities, recommendations and presentation dates in the Digital Teacher Ring (Moodle Platform).

Presentation and monitoring of the different activities, as well as the work, will be done through the aforementioned platform.

### **4.5.Bibliography and recommended resources**