



Course guide

220226 - 220226 - Research Seminars

Last modified: 02/04/2024

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 702 - CEM - Department of Materials Science and Engineering.

Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Optional subject).
MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Optional subject).
MASTER'S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING (Syllabus 2016). (Optional subject).

Academic year: 2024 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: Diana Cayuela Marín

Others: Biblioteca del Campus de Terrassa, Centre de Transferència de Tecnologia de la UPC, Grups de Recerca del Campus de Terrassa

TEACHING METHODOLOGY

The teaching methodology is divided into two parts:

- Face-to-face sessions of exhibition-participation of the content and realization of exercises.
- Autonomous work of study and realization of exercises and activities.

In the exhibition-participation of the contents, the teacher will introduce the theoretical bases of the terms, concepts, methods and results, illustrating them with convenient examples and asking for the realization of exercises, where appropriate, to facilitate its understanding.

The students, independently, must work the material provided by the teaching staff and the results of the working sessions-problems in order to assimilate and fix concepts.

The teacher will provide a studies and monitoring of activities plan (ATENA).

LEARNING OBJECTIVES OF THE SUBJECT

At the end of the course the student should:

- to know what methodological aspects can be applied in a research,
- to know the tools at our disposal for the bibliographic search,
- to know the sources of research funding,
- to know about the research that is carried out on the Campus of Terrassa.

STUDY LOAD

Type	Hours	Percentage
Self study	48,0	64.00
Hours large group	27,0	36.00

Total learning time: 75 h



CONTENTS

Module 1: Research methodology

Description:

Introduction. Research definition and types. The methods in research. A general research method.

Full-or-part-time: 5h

Theory classes: 3h

Self study : 2h

Module 2: Search of the known facts

Description:

Through a seminar, the bibliographic search tools available for research will be revised

Full-or-part-time: 7h

Theory classes: 2h

Self study : 5h

Module 3: Seminars of the research groups of the Campus of Terrassa

Description:

The different research groups present in the Campus of Terrassa will be present their research lines and its results.

Full-or-part-time: 38h

Theory classes: 18h

Self study : 20h

Module 4: Broadcasting of the research results

Description:

Describes the type of existing publications, the structure of a scientific or technical publication, reporting structure, conferences. Patents.

Full-or-part-time: 18h

Theory classes: 2h

Self study : 16h

Module 5: Sources of research funding

Description:

Describes the existing funding of the research sources.

Full-or-part-time: 7h

Theory classes: 2h

Self study : 5h



GRADING SYSTEM

Students must present, in article and Conference formats a memory that contemplates a possible project that can be framed within the research of one of the research groups of the Terrassa Campus. The project must include all aspects dealt with in the course.

Report of the project: 60%

Presentation: 40%

BIBLIOGRAPHY

Basic:

- Cegarra, José. Metodología de la investigación científica y tecnológica. Madrid: Díaz de Santos, 2004. ISBN 8479786248.

RESOURCES

Other resources:

Notes are available to the students in ATENEA