Course guide
33101 - EMRARN - Methodological Tools for Research on Natural Resources

Unit in charge: Manresa School of Engineering
Teaching unit: 750 - EMIT - Department of Mining, Industrial and ICT Engineering.
Degree: MASTER'S DEGREE IN NATURAL RESOURCE ENGINEERING (Syllabus 2015). (Compulsory subject).
Academic year: 2022  ECTS Credits: 5.0  Languages: Spanish

LECTURER

Coordinating lecturer: FRANCESC XAVIER DE LAS HERAS CISA
Others: Personal de biblioteca de la BCUM.

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
3. Capacity to use the scientific and technical information to respond efficiently to any demand of the preparation of an analytical method for the characterization of a natural or anthropogenic material.

Generical:
1. The ability to communicate effectively orally and in writing.
2. The ability to take the initiative and be creative.

TEACHING METHODOLOGY

Students must attend scheduled face-to-face classes. Practical exercises carried out on a regular basis and a bibliographic research assignment related to the content of the subject will be assessed.

Students taking this subject are assessed as described below.
- Reading and comprehension of the content of the subject and activities: 20% of the final mark
- Assignment: 80% of the final mark

LEARNING OBJECTIVES OF THE SUBJECT

To supply specialised tools to access the information sources that students need to carry out an engineering research assignment. It’s a practical course that aims to help students who wish to carry out research with their bibliographic research, so that they can provide full, rigorous and current information.

STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Hours medium group</td>
<td>15,0</td>
<td>33.33</td>
</tr>
<tr>
<td>Hours large group</td>
<td>30,0</td>
<td>66.67</td>
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</tbody>
</table>

Total learning time: 45 h
## CONTENTS

### 1. Introduction

**Description:**
Digital identity. The value of research. The value of information in the research process. The Library

**Full-or-part-time:** 7h  
Theory classes: 3h  
Self study: 4h

### 2. Scientific communication

**Description:**
Types of scientific documents. Reference management. Search strategy. Search tools

**Full-or-part-time:** 30h  
Theory classes: 12h  
Self study: 18h

### 3. Information resources in the natural resources scope

**Description:**
Open access source. Databases (Scopus, WoS)

**Full-or-part-time:** 37h  
Theory classes: 15h  
Self study: 22h

### 4. Written communication

**Description:**
Readibility. Text creation. Textual markers. Written efficiency improvement of the scientific paper.

**Full-or-part-time:** 15h  
Theory classes: 6h  
Self study: 9h

### 5. Oral communication

**Description:**
Verbal communication. Non-verbal communication

**Full-or-part-time:** 7h  
Theory classes: 3h  
Self study: 4h
ACTIVITIES

<table>
<thead>
<tr>
<th>Title of the activity 1: Individual exam</th>
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<tbody>
<tr>
<td><strong>Description:</strong> Individual exams in the classroom to assess theoretical concepts and problem solving related with the content of the subject.</td>
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<tr>
<td>A) Continuous assessment</td>
</tr>
<tr>
<td>Exam 1: Contents 1 &amp; 2 (20% final score)</td>
</tr>
<tr>
<td>Exams 2 &amp; 3: Content 3 (2 parts, 40% final score)</td>
</tr>
<tr>
<td>Exam 4: Content: 4 (25% final score)</td>
</tr>
<tr>
<td>Exam 5: Content: 5 (15% final score)</td>
</tr>
<tr>
<td>B) Unique Exam lasting 6 h will be done: Contents from 1 to 5</td>
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</table>

**Specific objectives:** To understand the theoretical concepts of the related contents

**Material:**
- Statements

**Delivery:**
- Solving the exams and writing the results

**Full-or-part-time:** 23h
- Theory classes: 9h
- Self study: 14h

GRADING SYSTEM

Students taking this subject are assessed as described below.

- Reading and comprehension of the content of the subject and activities: 20% of the final mark
- Exam results: 80% of the final mark

Students must attend exams and hand in assignments to be assessed.

EXAMINATION RULES.

- Class attendance
- Carrying out individual exams

BIBLIOGRAPHY

**Basic:**