Course guide
240814 - 240814 - Workplace Epidemiology

Unit in charge: Barcelona School of Building Construction
Teaching unit: 1039 - UPF - Universitat Pompeu Fabra.

Degree: MASTER'S DEGREE IN OCCUPATIONAL HEALTH AND SAFETY (Syllabus 2016). (Compulsory subject).
Academic year: 2022 ECTS Credits: 3.0 Languages: Catalan, Spanish

LECTURER
Coordinating lecturer: MIREIA UTZET SADURNI
Others: MIREIA UTZET SADURNI

DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

Specific:
1. Know the relation between occupational and health safeties.
2. Know the main investigation techniques in labour health. The toxicology basics applied to the contaminants in the occupational field and the technical solutions for the design and evaluation of the ventilation systems.
3. Know to develop emergency and security plans, make training and information plans assigned to workers, including the detection of needs and establish the evaluating systems and monitoring measures, lay out corrective measures in front of risks of chemical nature, physical or biological; carry out risk evaluations and set out corrective measures related to the physical and mental load at work; make the epidemiologic study design to identify risk factors of occupational nature, apply its basics and manipulation and applications of the main chemical analysis techniques in the hygienic world.
4. Be able to analyse the main health problems related to work.

TEACHING METHODOLOGY

Of the 75 hours of work dedicated by the student in this subject, 30 hours will be done with the presence of the teacher (although this year virtually due to the pandemic situation), with the following distribution: 14 sessions of an hour and a half where the basic information of the topics included in the program will be presented and debated; 8 theoretical sessions, 4 practical seminars, 1 group presentation session and a final tutorial session and review of the subject. In the practical sessions, the students will solve cases and problems in small groups. To this distribution is added a weekly hour of individualized tutoring with students throughout the 15 weeks that the course lasts to answer questions and monitor their learning process.

The rest of the scheduled time, 45h, the student will have to read the materials provided in the dossier of the subject, solve the practical problems and prepare the test with multiple-choice questions on minimum knowledge.

LEARNING OBJECTIVES OF THE SUBJECT

a) Describe the usefulness of epidemiological research.
b) Calculate and interpret the frequency and association measures.
c) Define the basic epidemiological investigation designs.
d) Describe the existing errors in epidemiological studies.
e) Present the concepts of confusion and interaction.
f) Critically interpret the results of epidemiological studies.
g) Encourage critical reading of scientific articles
STUDY LOAD

<table>
<thead>
<tr>
<th>Type</th>
<th>Hours</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Self study</td>
<td>48,0</td>
<td>64.00</td>
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<tr>
<td>Hours large group</td>
<td>27,0</td>
<td>36.00</td>
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</tbody>
</table>

Total learning time: 75 h

CONTENTS

- **PRESENTATION AND OBJECTIVES. EPIDEMIOLOGY AND SCIENTIFIC RESEARCH.**

  Description: -

  **Full-or-part-time:** 1h 30m
  Theory classes: 1h 30m

- **BASIC DESIGNS OF EPIDEMIOLOGICAL RESEARCH**

  Description: -

  **Full-or-part-time:** 1h 30m
  Theory classes: 1h 30m

- **DESIGNS SEMINAR**

  Description: -

  **Full-or-part-time:** 1h 30m
  Theory classes: 1h 30m

- **Epidemiological measures (I)**

  Description: Frequency measurements (1.5h)

  **Full-or-part-time:** 1h 30m
  Theory classes: 1h 30m

- **Epidemiological measures (II)**

  Description: Epidemiological measures (II): Association and impact

  **Full-or-part-time:** 1h 30m
  Theory classes: 1h 30m
<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
<th>Full-or-part-time</th>
<th>Theory classes</th>
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<tbody>
<tr>
<td><strong>Epidemiological measures (III)</strong></td>
<td>Epidemiological measures (III): Association and impact</td>
<td>1h 30m</td>
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<tr>
<td><strong>Epidemiological Measures Seminar (I)</strong></td>
<td>Epidemiological Measures Seminar (I)</td>
<td>1h 30m</td>
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<tr>
<td><strong>Epidemiological Measures Seminar (II)</strong></td>
<td>Epidemiological Measures Seminar (II)</td>
<td>1h 30m</td>
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<tr>
<td><strong>Systematic and random error</strong></td>
<td>Systematic and random error</td>
<td>1h 30m</td>
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<tr>
<td><strong>Confusion and interaction (I)</strong></td>
<td>Confusion and interaction (I)</td>
<td>1h 30m</td>
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<tr>
<td><strong>Confusion and interaction (II)</strong></td>
<td>Confusion and interaction (II)</td>
<td>1h 30m</td>
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Seminar confusion and interaction

Description:
Seminar confusion and interaction

Full-or-part-time: 1h 30m
Theory classes: 1h 30m

Group presentation

Description:
Group presentation

Full-or-part-time: 1h 30m
Theory classes: 1h 30m

Revision

Description:
Revision

Full-or-part-time: 1h 30m
Theory classes: 1h 30m

GRADING SYSTEM

The grade will be obtained from: attendance and participation in class (10%); group presentation (25%); 4 seminars (25%); exam (40%).

In order to pass the course it is necessary:
1- Deliver the four seminars.
2- Make the presentation in group.
3- Take the exam and get a 4.

BIBLIOGRAPHY

Basic: