Universitat de les Illes Balears

Teaching guide

Academic year	2015-16
Subject	11196 - Training in scientific research
Group	Group 1, 1S
Teaching guide	B
Language	English

Subject identification

Subject	11196 - Training in scientific research
Credits	1 de presencials (25 hours) 2 de no presencials (50 hours) 3 de totals (75 hours).
Group	Group 1, 1S (Campus Extens)
Teaching period	First semester
Teaching language	English

Professors

Lecturers	**Horari d'atenció als alumnes**					
	Starting time	**Finishing time**	**Day**	**Start date**	**Finish date**	**Office**
Fabrice Parmentier - fabrice.parmentier@uib.es	You need to book a date with the professor in order to attend a tutorial.					

Contextualisation

This module aims to provide student with an understanding of some key aspects of scientific research covering: the search for scientific information through computerized bilbiographical tools, methods to select background reading at the start of a project, types of quantitative designs and their related methodological implications, selection of samples and statistical methods, rules and relevant issues for the writing of a scientific publication.

Requirements

The module will be a refresher for students with some resarch training background and will allow students whithout this training to aquire basic notions and identify some key issues to guide their continuous learning.

Recommendable

Some knowledge of research methods in social sciences are recommended but not compulsory. Student without notions of research methods will be advised to complement this module with independent reading.

Skills

Specific

* Students will learn aspects of experimental designs from the selection of information, choice of experimental design, to the choice of analysis and the rules guiding scientific writing. They will apply those skills through practical activities and assessed work..

Date of publication: 28/09/2015

Generic

* Students will acquire knowledge regarding key methodological issues faced by researchers in the field of cognitive and social sciences. They will become able to make decisions regarding the various steps of the research process, identify areas where they might require further training and be able to identify where to find further information..

Transversal

* You may consult the basic competencies students will have to achieve by the end of the Master's degree at the following address: http://estudis.uib.cat/master/comp_basiques/.

Basic

* You may consult the basic competencies students will have to achieve by the end of the Master's degree at the following address: http://estudis.uib.cat/master/comp_basiques/

Content

Theme content

Topic 1. Bibliographical resources and their use
Practical training in using key bibliographical online tools for scientists.

Topic 2. Experimental design
Description of main key design types, their pros and cons. Definition of variables, measurement issues, types of relations between variables.

Topic 3. Basic statistical techniques of inferential statistics
Basic description of descriptive statistics, correlations, and fundamentals of inferential statistics, effect sizes, 95% confidence intervals. Theoretical definitions and practical examples.

Topic 4. The making of a research article
Types of articles, fundamentals of scientific writing, strcuture of scientific papers, publication guidelines.

Teaching methodology

The module includes lectures as well as coursework.

In-class work activities

Modality	Name	Typ. Grp.	Description	Hours
Theory classes	Lectures	Large group (G)	Lectures covering the main topics.	20
Practical classes	Workshop, practical training	Medium group (M)	Computer-based activities related to the use of statistical packages and bibliographical search tools	5

At the beginning of the semester a schedule of the subject will be made available to students through the UIBdigital platform. The schedule shall at least include the dates when the continuing assessment tests will

Date of publication: 28/09/2015

be conducted and the hand-in dates for the assignments. In addition, the lecturer shall inform students as to whether the subject work plan will be carried out through the schedule or through another way included in the Campus Extens platform.

Distance education work activities

Modality	Name	Description	Hours
Individual self-study	Data analysis	Students will analyze one or more a data set(s) using techniques covered in the lectures.	5
Individual self-study	Data management and analysis	Students will practice statsitical analyses using the tools and techniques covered in the lectures	30
Individual self-study	Literature search	Students will practice the use of search tools and techniques to identify revelant literature on given topics.	10
Individual self-study	Participation in practical class activities	Evaluation of the student's ability to use computer-based tools to carry out bibliographical searches and data analisis during the lecture.	5

Specific risks and protective measures

The learning activities of this course do not entail specific health or safety risks for the students and therefore no special protective measures are needed.

Student learning assessment

Data analysis

Modality	Individual self-study
Technique	Papers and projects **(retrievable)**
Description	Students will analyze one or more a data set(s) using techniques covered in the lectures.
Assessment criteria	Students will submit a report describing the results of a statistical analysis and proposition of design for a given hypothetical experiment. Data can be analyzed using tools covered during the lectures or any other statistical package, and the statistical results be reported using APA style.

Final grade percentage: 90%

Date of publication: 28/09/2015

Participation in practical class activities

Modality	Individual self-study
Technique	Attitude scales **(retrievable)**
Description	Evaluation of the student's ability to use computer-based tools to carry out bibliographical searches and data analisis during the lecture.
Assessment criteria	Evaluation of the student's ability to use computer-based tools to carry out bibliographical searches and data analisis.

Final grade percentage: 10%

Resources, bibliography and additional documentation

To be announced at the start of the lectures

Basic bibliography

To be announced at the start of the lectures

Other resources

Electronic resources and links to specialist software will provided during the lectures.

Date of publication: 28/09/2015