

## Syllabus

### Subject

<b>Subject / Group</b>	11450 - Quantitative Methods for Tourism Research / 1
<b>Degree</b>	Master's Degree in Tourism Management and Planning
<b>Credits</b>	3
<b>Period</b>	1st semester
<b>Language of instruction</b>	English

### Professors

Lecturers	Office hours for students					
	Starting time	Finishing time	Day	Start date	End date	Office / Building
Lucia Mangiavacchi - <a href="mailto:lucia.mangiavacchi@uib.es">lucia.mangiavacchi@uib.es</a>	You need to book a date with the professor in order to attend a tutoring session.					

### Context

This subject aims to provide to the students an introduction to practical tools for the quantitative analysis of data in the tourism field.

Tourism relies heavily on data of all sorts and the quantitative treatment of data and information collected in a wide variety of ways is a crucial endeavor for both academics and practitioners. A large number of statistical and econometric techniques have been developed for dealing with decision making, or for the implementation of development plans or policies, or simply for understanding how tourism activities unfold. The course will give an overview of standard methods in statistical data analysis widely applied in tourism research: hypothesis tests, regressions, cluster and factor analysis.

The course will focus on practical information on a variety of methods and, mainly, on the way they can be applied to tourism cases. It aims at providing practical hints on their applicability and a discussion on their advantages and disadvantages. Making use of statistical softwares students will have the opportunity to apply these techniques to analyze tourism data and treat empirical study cases.

### Requirements

To follow adequately this course students with non-economic or statistical background are advised to review elementary algebra and statistical concepts. In particular it is important to be familiar with descriptive statistics like mean, variance, median, and quantiles and probability theory (probability distribution function, expected value and variance of a random variable, the normal distribution and related distributions (t, chi-square, F)).

### Skills

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### Specific

- \* [CE1] Learn how to deal with techniques of data collection and analysis and their application in the tourism sector. .
- \* [CE9] Learn how to deal with and interpret different models and statistical and econometric techniques to manage and plan tourism destinations and organizations. .

### Generic

- \* [CG4] Know the fundamentals and apply methodologies suitable for the analysis of the tourism sector. .
- \* [CG1] Know how to find, process and analyze information concerning the tourism sector from different sources. .

### Transversal

- \* [CT4] Information management skills. .
- \* [CT6] Being able to take decisions and solve problems. .

### 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/](http://estudis.uib.cat/master/comp_basiques/)

## Content

### Range of topics

#### I. The nature of data in tourism analysis

1. Data quality and sources
2. Data collection
  - \* Survey design in tourism research.
  - \* Sampling procedures.
  - \* Random sampling: characteristics and typology.

#### II. Qualitative methods for tourism research

3. Descriptive analysis
  - \* Unidimensional analysis of quantitative and qualitative variables.
  - \* Bivariate analysis of quantitative and qualitative variables.
4. Statistical inference
  - \* Parameter estimation.
  - \* Estimator as a random variable.
  - \* Properties of the estimators.
  - \* Statistical tests and possible errors.
  - \* Parametric and non-parametric tests.
  - \* Sample size and significance.
  - \* Bootstrapping
5. Data analysis
  - \* Factor analysis
  - \* Using the results of a factor analysis
  - \* Cluster analysis
  - \* Multidimensional scaling

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6. Multiple regression analysis.
- \* Specification.
  - \* Assumptions.
  - \* Ordinary least squares method.
  - \* Assessing model's quality
  - \* Testing parameters significance.

### Teaching methodology

The course consists of both theoretical and practical classes at the computer room, using statistical softwares. The evaluation is based on the preparation and presentation of papers with data analyses.

In-class work activities (0.72 credits, 18 hours)

Modality	Name	Typ. Grp.	Description	Hours
Theory classes	Lectures	Large group (G)	The lectures give a detailed exhibition of the most important in each topic, including new concepts and examples. The lecturer will give to the students some specific bibliographic references for completing the in-class expositions. Another important function of the lectures is to facilitate the students to see the context of each subject and be able to see relations between the different parts from the course.	8
Practical classes	Computer classes	Large group (G)	When finalizing the theoretical contents the student will make practices to assimilate and to apply the theory reviewed in class in the last week of classes. The practical sessions include introduction of the use of statistical computer science packages	6
Assessment	Papers presentation	Large group (G)	When finalizing classes students are asked to perform a simple data analysis and write a short paper. Then they will present their papers in class focusing on the methodology used. Teacher will assign the datasets and the method to be used by each student. Teacher will evaluate papers and presentations.	2
Assessment	Student's active participation.	Large group (G)	Students' active participation during class debates or theory lectures, exercise solving at the blackboard will be evaluated.	2

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 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 Aula Digital platform.

Distance education tasks (2.28 credits, 57 hours)

Modality	Name	Description	Hours
Individual self-study	Short papers	When finalizing classes students are asked to perform a simple data analysis and write a short paper. Then they will present their papers in class focusing	27

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Date of publication: 02/07/2018



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Modality	Name	Description	Hours
		on the methodology used. Teacher will assign the datasets and the method to be used by each student. Teacher will evaluate papers and presentations.	
Group or individual self-study	Study of theoretical contents	The student will study the theoretical contents of the subject using the in-class expositions as a reference guide and reviewing the recommended bibliographic references. It is recommendable to read the corresponding material before attending the lectures to facilitate the learning of the content. Also it is important to review the topics after each class to make sure that all the doubts have been solved.	30

### 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

When finalizing classes students are asked to perform a simple data analysis and write a short paper. Then they will present their papers in class focusing on the methodology used. Teacher will assign the datasets and the method to be used by each student. Teacher will evaluate papers and presentations. A minimum mark of 5 is required to pass the subject.

### Frau en elements d'avaluació

In accordance with article 33 of Academic regulations, "regardless of the disciplinary procedure that may be followed against the offending student, the demonstrably fraudulent performance of any of the evaluation elements included in the teaching guides of the subjects will lead, at the discretion of the teacher, a undervaluation in the qualification that may involve the qualification of "suspense 0" in the annual evaluation of the subject".

### Papers presentation

Modality	Assessment
Technique	Oral tests ( <b>non-retrievable</b> )
Description	When finalizing classes students are asked to perform a simple data analysis and write a short paper. Then they will present their papers in class focusing on the methodology used. Teacher will assign the datasets and the method to be used by each student. Teacher will evaluate papers and presentations.
Assessment criteria	
Final grade percentage:	40%

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### Student's active participation.

Modality	Assessment
Technique	Oral tests ( <b>non-retrievable</b> )
Description	Students' active participation during class debates or theory lectures, exercise solving at the blackboard will be evaluated.

Assessment criteria

Final grade percentage: 20%

### Short papers

Modality	Individual self-study
Technique	Papers and projects ( <b>non-retrievable</b> )
Description	When finalizing classes students are asked to perform a simple data analysis and write a short paper. Then they will present their papers in class focusing on the methodology used. Teacher will assign the datasets and the method to be used by each student. Teacher will evaluate papers and presentations.

Assessment criteria

Final grade percentage: 40%

## Resources, bibliography and additional documentation

### Basic bibliography

Baggio, R., & Klobas, J. (2011). Quantitative Methods in Tourism: an Handbook. Channel View Publications.

### Complementary bibliography

- \* Hill, R. C., Griffiths, W. E., & Lim, G. C. (2011). Principles of econometrics (Vol. 5). Hoboken, NJ: Wiley.
- \* Greene, William H. (2012), Econometric Analysis, 7/E, Prentice Hall.