UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Inference Principle For Tourism Applications

2122-1-F7601M075

Learning objectives

The course consists of two parts:

1) Principles of inference;

2) Statistical applications in the field of tourism.

Part 1 aims at introducing and illustrating the concepts and tools of Probability and Statistics needed for inferential applications.

Part 2 aims to provide important statistical tools useful for solving problems related to time series components of tourism demand and autocorrelation in tourism time series.

Contents

Part 1.

Probability measures and random variables.

Confidence intervals and statistical tests.

Part 2.

Study of components of the tourism demand.

Stochastic processes and autocorrelation functions.

Detailed program

Part 1.

Random events and probability measures.

Discrete and continuous random variables.

Random sampling and theory of estimation.

Confidence intervals for means and proportions.

Statistical tests for means and proportions.

Goodness of fit and independence tests.

Part 2.

Study of the components of the medium to long term (trend-cycle) and short term (seasonality) tourism demand.

Moving averages and applications in the field of tourism.

Stochastic processes: definitions, properties and examples.

Global and partial autocorrelation functions and corresponding estimators.

Hypothesis testing with the autocorrelation functions and examples of application in the field of tourism.

Prerequisites

None.

Teaching methods

Lectures and tutorial sessions.

Assessment methods

Written and oral exams.

The written exam aims at testing the problem-solving ability while the oral exam aims at evaluating the theoretical skills.

The overall mark is the average of the marks obtained in the two exams.

Textbooks and Reading Materials

Part 1.

Scott M. Lynch, “Using Statistics in Social Research”, Springer, 2013.

Lecture notes available on the e-learning platform.

Part 2.

Bohrnstedt G.W., Knoke D., Statistica per le scienze sociali, Il Mulino, Bologna, 1998.

Piccolo D., Vitale C., Metodi statistici per l’analisi economica, Il Mulino, Bologna, 1984.

Semester

The course is scheduled in the first semester.

Teaching language

Italian.