

Introduction to Quantitative Analysis

2 credit mandatory elective MA class

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Class Time: Tuesdays 15:30-17:10 and Friday 11:00-12:40 Office Hours: TBA or at an agreed time.

(Appointment is always required 24 hours before meeting or you can't expect me to be there. Email me or call me.)

Class Website: <http://e-learning.ceu.hu>

You need to sign up for the on-line class. Once the class has started, you can log in with your CEU ID and password. The code to sign up for the class is: *** (TBA)

Summary

The course is designed to provide scholars with the basic tools of conducting research using quantitative methods. The course will cover the basics of statistical analysis and necessary supplemental information on appropriate design of quantitative research and the principles of data collection and handing. Beyond the most basic concepts we will utilize dedicated statistical computer software to help us analyze social science data. This will minimize the need for calculating mathematical statistics by hand. The focus of this course is primarily on the application of quantitative research method.

The course gives a general overview of data collection and analysis methods and discusses the basics of statistical reasoning. While class aims to show the logic (and to some extent the mathematics) behind the statistical techniques the primary focus is on computer assisted statistical analysis. It will instruct on how computers can make your life a lot easier when doing statistical analysis. Software used in this class is Excel, SPSS and possibly R.

Topics covered will depend on how fast we advance through the course. Below you find the topics we absolutely will cover and the topics we will try to cover. I expect this course to advance quicker than Understanding of Social Science Statistics.

There are two introductory statistics classes to keep the classroom size down. Students will be assigned to the groups by the instructor based on their background and interest.

Learning Outcomes:

At the conclusion of the course students should be able to use the listed software to conduct analysis using the methods listed under the section "Topics We Will Definitely Cover". Students also should be able to evaluate work in ranked journals using these methods.

Textbook:

Frederick J Gravetter and Larry B. Wallnau. *Essentials of Statistics for the Behavioral Sciences*. (The library has several copies of the textbook on reserve.)

Additional readings, supporting material and assignments will be posted on line.
Assignments will have to be submitted through the website.

Evaluation

Regular assignments and quizzes will be given in class. All assignments and quizzes will be weighed equally, there could be several assignments due for a single class. In addition to these the class will include a final paper. The topic of the project has to be pre-approved. Attendance (with timely arrival) is **required**. Late arrivals are counted as unexcused absences. Three unexcused absences will lead to an automatic failure of the class. If you will miss a class or come late for any reason, make sure I know about it **before** the class.

Grading

Quizzes and Assignments 80%
Project 20%

Important Notice

Complete academic honesty is expected of everyone. Failure to comply with this requirement will result in automatic failure in this course (and subsequently in the program) and additional disciplinary action on higher levels. This is an American university and American standards will be applied. For more information about these standards see: http://en.wikipedia.org/wiki/Academic_dishonesty (**READ VERY CAREFULLY!**)

All assignments are to be done individually. You can talk about how to do it but none of the actual work can be done in a group. Any evidence to the contrary will be investigated.

Topics We Will Definitely Cover

- Intro to Applied Statistics (the debates)
- What is/are data and how to use it
- Descriptive Statistics
- Intro to Statistical Software (GUI vs Scripts)
- Crosstabs and other presentation methods
- Chi-Square
- Reliability
- Experimental Design and T test.
- Correlations
- Regressions
- Regression Diagnostics

Possible Additional Topics

- Logistic Regression
- Analysis of Variance
- Factor analysis
- Cluster Analysis
- Overview of what's next