**Laboratory of Research on Work and Organisations**

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***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course aims to provide students with some methodological skills, IT skills and interpretive abilities to read and analyse contemporary phenomena, in particular related to labour market and work organisations. The objectives will be met through both the use of national and international official statistical sources, and the ability to correctly choose and apply certain quantitative and graphical analytical tools. The workshop includes two modules, each of which will be assessed separately. Most workshop meetings will entail the use of a PC. For this reason, students should have their own portable PC.

*Knowledge and ability to understand*

At the end of the course, students will demonstrate knowledge of the main methods of quantitative social research for the analysis and interpretation of social phenomena related to labour market and working conditions, measured via secondary and primary sources. They will know the fundamentals of Excel and SPSS useful for creating statistical reports, extracting probabilistic samples, reading of inferential statistics measures and monovariate, bivariate and multivariate analysis of raw data. They will know the main official national and international statistical sources concerning themes related to the work area.

*Competences and skills:*

Students will be able to apply the theoretical and computer knowledge acquired to the analysis of some collective phenomena empirically investigated through sample or census surveys. They will be able to identify official statistical sources appropriate to the topic studied and correctly apply some quantitative and graphic analysis tools, with the support of Excel and SPSS.

*Autonomy of judgment*

Students will have acquired a theoretical and operational knowledge that will give them autonomy in collecting and processing information with which formulate projects and proposals appropriate to the different contexts of action. Autonomy of judgement will be developed through students’ active participation in the laboratory, but also through the activity assigned to prepare a final paper as required for the first part of the course.

*Learning ability*

Students will be able to use analysis tools and to apply the study methods developed to independently deepen and update their knowledge. Learning skills are assessed through individual exercises during workshop activities.

***COURSE CONTENT***

Part 1: *Data and methods for the reading of social phenomena (secondary sources)* (Prof. Danya Facchinetti)

1. *The knowledge and use of official statistical sources.*
* The local, national, and European scenario.

– Primary and secondary sources.

– Administrative sources and open data.

– Territorial indicators.

– Finding official statistical data on the Internet.

b) *The analysis of data deriving from secondary sources using Excel*

Excel is a widespread computing software that can be very useful in statistical analysis. During the course, students will have the possibility to rediscover some of the techniques introduced during the Social Statistics course (year 1) and put them into practice thanks to the use of spreadsheets.

* Spreadsheets and data matrix
* The use of pivot tables for univariate and bivariate analysis.
* The graphic representation of univariate and bivariate statistical variables
* The identification of a statistical sample from a list.
* The calculation of point and interval estimations based on statistical samples.
* Statistical relationships: creation and interpretation through real data.

Part 2: Focus on labour market and work organisations (Prof. Lorena Viviano)

1. *Official statistical sources on labour market and work organisations*
2. *Analysing primary sources with SPSS*

Analysing data with SPSS:

* Univariate analysis: alignment of students’ knowledge of procedures regarding the analysis of frequency distribution (representational charts and tables) and the main measurements of centrality and dispersion.
* Univariate analysis of multiple-choice questions: frequency distribution. Procedures, applications reading and interpretation.
* Bivariate analysis: joint frequency distributions, charts. Simple linear regression and logistic regression. Procedures, applications, reading and interpretation.
* Multivariate analysis: multiple linear regression. Procedures, applications, reading and interpretation.
* Analysing secondary sources with SPSS: historical series and territorial series.

***READING LIST***

 Part 1

Learning materials available on Blackboard.

 Part 2

B. Vettori, *Le statistiche sulla criminalità in ambito internazionale, europeo e nazionale. Fonti e tecniche di analisi con SPSS*, LED Edizioni Universitarie di Lettere Economia Diritto, Milano, 2010.

Notes and material curated by the lecturer will be available on the *Blackboard* platform.

***TEACHING METHOD***

Lectures, also computer-aided, in the first and second semester. Practical classes involving case studies and experiments aimed at software use. Use of the Blackboard platform.

***ASSESSMENT METHOD AND CRITERIA***

The expected methods for assessing students’ knowledge and skills acquired are distinct for the first and second part of the course. For each part, the course assessment consists in a computer-based written exam. The overall exam is considered passed when the students pass each of the two parts of the exam. Exams and mark registration take place on the same official exam date, when lecturers responsible for the two parts of the course and the coordinator will be present.

Part 1 (Prof. Facchinetti)

Attending students will be subject to an *ongoing evaluation procedure*, covering the whole academic semester. In order to be considered as attending students, they will have to: a) be regularly enrolled on Blackboard, and b) attend class regularly. This procedure includes three practical activities, to be submitted during the course, awarding students with a maximum of 9 points. The remaining 22 points will be acquired at the end of the course through a final exam consisting in a selection of exercises similar to the ones carried out during the practical activities (11 points) and multiple-choice questions on the theory (11 points).

For non-attending students, the final exam will consist in practical exercises (16 points) and multiple-choice questions on the theory (15 points).

Assessment criteria: the use of Excel to process data; the choice of the most appropriate theoretical tools among the ones presented in class; the use of analytical rigour while looking for an answer, and the ability to use argumentation to explain the results obtained.

Part 2 (Prof. Viviano)

a) attending students may take an interim exam scheduled immediately after the end of the second part, and compatibly with the academic calendar. They will be assessed on their content knowledge. The interim test is an extra opportunity beyond the official exam dates to pass Part 2. The test is available to students who a) are regularly enrolled in the course page on Blackboard, b) attended classes regularly and c) have taken the written exam on the first part of the course. The interim test consists of exercises to be solved using SPSS software (for data analysis and processing) and Word (to export and comment the SPSS outputs). Assessment will take into consideration students’ ability to use the most coherent theoretical tools among those studied, to use SPSS commands to carry out analysis, to comment coherently on the obtained results. The mark will be out of thirty (the maximum achievable mark is 30/30);

b) for non-attending students, the exam will be held on official exam dates. The exam consists of computer-based exercises to be solved using SPSS software (for data analysis and processing) and Word (where the SPSS outputs are exported and commented). Assessment will take into consideration students’ ability to use the most consistent theoretical tools among those studied, to use SPSS commands to carry out analysis, to comment coherently on the obtained results and knowledge of the statistical sources concerning the topics presented. The mark will be out of thirty (the maximum achievable mark is 30/30);

The final mark will be the average of the marks obtained in Part 1 and Part 2.

***NOTES AND PREREQUISITES***

The following basic computer skills are required: file management (working on files and folders; file compression: renaming; copying and pasting); text writing; use of electronic worksheets (inserting data in cells, operations within cells, operations on worksheets, formatting numbers and texts, representing data in graphic form). Students who are not familiar with computer use are advised to attend online courses on the fundamentals of Excel.

It is also assumed that students master contents of the courses Social Statistics and Social Quantitative Research Laboratory.

In case the current Covid-19 health emergency does not allow frontal teaching, remote teaching and assessment will be carried out following procedures that will be promptly notified to students.

Further information can be found on the lecturers’ webpages at http://docenti.unicatt.it/web/searchByName.do?language=ENG, or on the Faculty news board.