FACOLTÀ	Facoltà di Scienze della Formazione
ANNO ACCADEMICO	2013-14
CORSO DI LAUREA (o LAUREA MAGISTRALE)	Psicologia sociale, del lavoro e dell'organizzazione
INSEGNAMENTO	Data analysis laboratory
TIPO DI ATTIVITÀ	Attività formative affini e integrative
AMBITO DISCIPLINARE	Discipline affini e integrative
CODICE INSEGNAMENTO	13344
ARTICOLAZIONE IN MODULI	NO
NUMERO MODULI	1
SETTORI SCIENTIFICO DISCIPLINARI	SECS-S/05
DOCENTE RESPONSABILE (MODULO 1)	Antonino Mario Oliveri Professore associato Università degli Studi di Palermo
CFU	6
NUMERO DI ORE RISERVATE ALLO STUDIO PERSONALE	110
NUMERO DI ORE RISERVATE ALLE ATTIVITÀ DIDATTICHE ASSISTITE	40
PROPEDEUTICITÀ	No one
ANNO DI CORSO	1
SEDE DI SVOLGIMENTO DELLE LEZIONI	http://portale.unipa.it/facolta/scienzeform.
ORGANIZZAZIONE DELLA DIDATTICA	The course will be held in English through lectures and practical lessons
MODALITÀ DI FREQUENZA	Recommended
METODI DI VALUTAZIONE	Open book PC session
TIPO DI VALUTAZIONE	Idoneity
PERIODO DELLE LEZIONI	Second term
CALENDARIO DELLE ATTIVITÀ DIDATTICHE	http://portale.unipa.it/facolta/scienzeform.
ORARIO DI RICEVIMENTO DEGLI STUDENTI	Dipartimento di Culture e Società, Viale delle Scienze, Edificio 15, VI piano, stanza 608, Giovedì ore 12,00-14,00.

RISULTATI DI APPRENDIMENTO ATTESI

Conoscenza e capacità di comprensione (*Knowledge and understanding)*
We expect that students will strengthen their ability in understanding and they will be able to write critically elaborate texts which will include the use of statistical techniques for analyzing mass behaviours and attitudes. Such techniques are in fact largely used in evaluation processes within communities and all other contexts where psychologists work.

Capacità di applicare conoscenza e comprensione (*Applying knowledge and understanding)*
Psychologists are expected to critically use statistics within their work environment. We refer, for example, to the observation of the behaviour of individuals and groups within families and institutions; to the prevention of hardships and to the facilitation of wellness at work and in society, and to the evaluation of related policies; to the personnel selection, training and evaluation for both public and private organizations.

Autonomia di giudizio *(Making judgements)*
The course is designed for the achievement of this ability. All the phases of the research path are analyzed, so that students can acquire the expertise necessary to critically select, among many data analysis tools, the more suitable to the nature of the investigated phenomena.

Abilità comunicative *(Communication skills)*
At the end of the course, students are expected to be able to interpret and communicate the results of their work, both as research results and in any other format. In order to do that, students have to reinforce the elements of their statistical language, and to acquire the capabilities required to produce scientific and professional reports.

Capacità d'apprendimento *(Learning skills)*
Critical thinking and the selection of the most suitable research designs (among many possible options) represent the most relevant purposes of this course. People able to do this, can also develop the ability to learn by themselves in further steps of their academic and professional career.

OBIETTIVI FORMATIVI DEL MODULO

This course offers students the chance to think about some fundamental issues related to the research methodology and to data analysis, with a particular focus on direct applications.
The main purpose of the course consists of orientating students to the critical use of statistical analysis tools for producing research reports. Case-studies, obtained from the psychological field, will be used in order to explain the close connection among the researcher's questions, the choice of one among many research designs and statistical tools. Applications will be encouraged through the MS Excel and R softwares.

MODULO	DENOMINAZIONE DEL MODULO
ORE FRONTALI	**LEZIONI FRONTALI**
2	Review of descriptive statistics: univariate analysis
2	The analysis of the relationship between variables. Causation and covariation.
3	Review of inferential statistics: estimating parameters, testing hypotheses
	ESERCITAZIONI
2	Introduction to MS Excel 2003.
4	Introduction to R.
7	Univariate descriptive statistics, graphical representations.
9	Bivariate descriptive statistics, the linear regression model.
9	Probability and statistical inference.
2	Self-evaluation test
TESTI CONSIGLIATI	**Review of Statistics (concepts and methods).** All academic books on descriptive and inferential statistics used by students during their BA degree courses fit the requirements of this course; some additional papers and/or online resources will be suggested by the teacher to interested students.

	Data analysis using MsExcel 2003. The Excel Statistics Companion. Rosenberg K.M. (2004), The Excel Statistics Companion CD-ROM and Manual, Version 2.0, 2nd Edition, Cengage, http://www.cengagebrain.co.uk/shop/en/GB/storefront/ emea?cmd=CLHeaderSearch&fieldValue=9780495186953 **Data analysis using R.** Materials distributed to students during lessons. An excellent elective resource, useful also for professional use of the software, is: Dalgaard P. (2008), Introductory statistics with R, Springer, http://www.springer.com/statistics/computanional+statistics/book/978-0-387-79053-4