



# UNIVERSITÀ DEGLI STUDI DI PALERMO

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| <b>DEPARTMENT</b>              | Culture e società  |   |                  |
| <b>ACADEMIC YEAR</b>           | 2018/2019  |   |                  |
| <b>MASTER'S DEGREE (MSC)</b>   | COOPERATION AND DEVELOPMENT  |   |                  |
| <b>INTEGRATED COURSE</b>       | STATISTICAL INDICATORS FOR DEVELOPMENT AND POVERTY MEASUREMENT   |   |                  |
| <b>CODE</b>                    | 18035  |   |                  |
| <b>MODULES</b>                 | Yes  |   |                  |
| <b>NUMBER OF MODULES</b>       | 2  |   |                  |
| <b>SCIENTIFIC SECTOR(S)</b>    | SECS-S/05  |   |                  |
| <b>HEAD PROFESSOR(S)</b>       | MILITO ANNA MARIA  | Professore a contratto in<br>quiescenza | Univ. di PALERMO |
| <b>OTHER PROFESSOR(S)</b>      | MILITO ANNA MARIA  | Professore a contratto in<br>quiescenza | Univ. di PALERMO |
|                                | MENDOLA DARIA  | Professore Ordinario                    | Univ. di PALERMO |
| <b>CREDITS</b>                 | 9  |   |                  |
| <b>PROPAEDEUTICAL SUBJECTS</b> |  |   |                  |
| <b>MUTUALIZATION</b>           |  |   |                  |
| <b>YEAR</b>                    | 1  |   |                  |
| <b>TERM (SEMESTER)</b>         | 1° semester  |   |                  |
| <b>ATTENDANCE</b>              | Not mandatory  |   |                  |
| <b>EVALUATION</b>              | Out of 30  |   |                  |
| <b>TEACHER OFFICE HOURS</b>    | <p><b>MENDOLA DARIA</b></p> <p>Tuesday 10:00 11:00 Ricevimento Online su piattaforma Teams (codice di accesso 5u94trz). Occorre *sempre* prenotarsi tramite portale unipa</p> <p>Thursday 09:30 10:30 Dipartimento SPPEFF (campus di viale delle scienze, Palermo), edificio 15, piano 6, stanza P6 010. Occorre *sempre* prenotare almeno 2 gg prima tramite piattaforma.</p> <p><b>MILITO ANNA MARIA</b></p> <p>Thursday 10:00 12:00 Edificio 15, viale delle Scienze, VI piano stanza 602</p> |   |                  |

**DOCENTE:** Prof.ssa ANNA MARIA MILITO

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| <b>PREREQUISITES</b>      | <p>Students are expected to have elementary notions of Mathematics (knowledge of logarithms, Cartesian plain, linear function); elementary notions of Statistics (variables' classification, graphs, mean, median, variability, rates, correlation, regression, cograduation).</p> <p>Some of these notions will be object of an integrative course to be held at the beginning of the semester or can be gained through a handbook of Statistics (e.g. S. Borra, A. Di Ciaccio - Statistica. Metodologia per le scienze economiche e sociali. McGraw Hill Italia)</p>  |
| <b>LEARNING OUTCOMES</b>  | <p>1) Knowledge and understanding<br/>Students have demonstrated knowledge and understanding of statistical methodologies aiming at constructing elementary and composite indicators in the socio-economic field;</p> <p>2) Applying knowledge and understanding<br/>Students can apply their knowledge and understanding in new or unfamiliar environments within broader (or multidisciplinary) contexts related to the field of development and cooperation.</p> <p>3) Making judgements<br/>Students have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on consequences linked to the application of their knowledge and judgements.</p> <p>4) Communication<br/>Students can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously. In order to gain this goal students are solicited to prepare and present documents and short research reports to be discussed during the lectures with classmates and teachers. Several guided debates on case studies about developed and developing countries will take place dealing with social and economic development themes.</p> <p>5) Lifelong learning skills: Students have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous. They develop these skills through efforts during lectures to judgmentally analyse socio-economic context of a country, by using primary and secondary information sources and scientific literature.</p>   |
| <b>ASSESSMENT METHODS</b> | <p>Final written test (only for the module of Statistical indicators for development ) and oral discussion for both modules.</p> <p>Written test is made by practice on building composite indicators and theoretical questions.</p> <p>Final oral exam:<br/>The oral assessment, joint for both modules, is a viva in which knowledge and skills in the field of study are going to be tested. Questions shall assess a) knowledge and understanding, b) cognitive and practical skills, c) ability to communicate, d) making judgements. In details the oral exam of Poverty measurement consists of the discussion of three – four scientific articles from the international literature, previously agreed with the teacher at the end of the lectures. For not attending students, the articles can be requested by e-mail. Final grade is on a scale going from 18 to 30 points, and arise from a weighted mean (CFU) of final grades in the two modules. For the module of Statistical indicators for development, written test and oral exam equally concur to the module's grade.</p> <p>Assessment scale:<br/>30 - 30 cum laude</p> <p>a) advanced knowledge of a field of work or study, involving a critical understanding of theories and principles;<br/>b) advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study;<br/>c) fully adequate use of specialized language;<br/>d) take responsibility for managing and innovate the study field.</p> <p>26-29<br/>a) comprehensive, specialised knowledge within a field of work or study and an awareness of the boundaries of that knowledge;<br/>b) a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems;<br/>c) comprehensive use of specialized language;<br/>d) exercise management and supervision in contexts of work or study activities.</p> <p>22 - 25<br/>a) knowledge of facts, principles, processes and general concepts, in a field of work or study.<br/>b) basic skills required to accomplish tasks and *solve problems by selecting and applying basic methods, tools, materials and information;<br/>c) basic capacity to use specialized language;<br/>d) basic capacity to take responsibility for completion of tasks in work or study.</p> |

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|                         | 18-21<br>a) basic general knowledge;<br>b) basic skills required to carry out simple tasks;<br>c) basic capacity to communicate relevant information;<br>d) basic capacity to take responsibility for completion of tasks in work or study.<br><br>0-18<br>a) Insufficient general knowledge;<br>b) Insufficient skills required to carry out simple tasks;<br>c) Insufficient capacity to communicate relevant information;<br>d) Insufficient capacity to take responsibility for completion of tasks in work or study. |
| <b>TEACHING METHODS</b> | Lectures. Tutorials and excel lab. Case studies analyses, teamwork.   |

| <b>MODULE</b><br><b>STATISTICAL INDICATORS FOR DEVELOPMENT</b><br><i>Prof.ssa ANNA MARIA MILITO</i>   |                             |
|---|-----------------------------|
| <b>SUGGESTED BIBLIOGRAPHY</b>   |                             |
| - Nardo M., Saisana M. Saltelli A., Tarantola S., Hoffman A., Giovannini E. (2005) Handbook on Constructing Composite Indicators- Methodology and user guide, OCSE Statistics working paper 2005/3 (scaricabile dal web)<br>- Delvecchio F. (1995) Scale di misure e indicatori sociali - Cacucci Editore<br>Ulteriore materiale didattico, articoli scientifici e report di Organismi internazionali saranno forniti dalla docente attraverso il portale della didattica.  |                             |
| <b>AMBIT</b>  | 50603-discipline economiche |
| <b>INDIVIDUAL STUDY (Hrs)</b>   | 110                         |
| <b>COURSE ACTIVITY (Hrs)</b>  | 40                          |
| <b>EDUCATIONAL OBJECTIVES OF THE MODULE</b>   |                             |
| <p>The aim of this module is to provide students with statistical methodology and technical skills necessary to:</p> <p>a) build by themselves simple and composite indicators in the socio-economic field; b) interpret and properly use main socio-economic indicators widespread in the official reports by European Union, international organizations and major non-governmental organizations operating in international cooperation; c) understand main composite development indicators from international scientific socio-economic literature, in the area of cooperation and development.</p> <p>Teaching methods aim at stimulating ability to solve problems working individually or in groups, and building and efficaciously using development indicators.</p> <p>At the end of the course, students must possess the mathematical and statistical tools to combine in a single synthetic indicator variables of different nature in order to obtain a quantitative measure of the target phenomenon. They must know how to operate –by means of composite indicators- comparisons between countries and between individuals. Moreover students are expected: a) to have acquired a discriminating judgment and adequate statistical techniques to select the most suitable instrument and data to measure the concept; b) to have gained skills to read and interpret statistical indicators in the present socio-economic literature of the main international organizations of interest to the themes of the course of study.</p> |                             |

## SYLLABUS

| Hrs | Frontal teaching  |
|-----|---|
| 2   | Introduction to the course: objectives, syllabus, teaching and assessment methods. Check of knowledge of some statistical concepts useful for the course.   |
| 2   | The indicators as instruments for the evaluation of complex phenomena and of the socio-economic development.  |
| 3   | Types of indicators. Indicator properties.  |
| 2   | The construction process of the data: measurement of latent variables, selection of variables to measure a multidimensional concept.  |
| 8   | Linear and nonlinear transformations for comparability of data (normalization, standardization, ...).   |
| 4   | Methodologies for the synthesis of indicators: choice of the aggregation function and the weighting scheme.   |
| 4   | The construction of a composite indicator in the presence of ordinal variables. Examples on customer satisfaction indicators. The CI index.   |
| 5   | Discussion on some composite indicators used in socio-economic field with special reference to indicators for international comparisons. Among others, the Human Development Indices, Quality of life indices, welfare indicators, TAI. Comparing country rankings. |
| Hrs | Practice  |
| 6   | Case study analysis: Excel lab. Particularly: construction of development indicators, variables' selection, data transformation, weighting and aggregation.   |
| Hrs | Others  |
| 4   | Guided discussion on case studies on composite indicators used in national and international field.   |

## MODULE POVERTY MEASURES

*Prof.ssa DARIA MENDOLA*

### SUGGESTED BIBLIOGRAPHY

- M. Baldini , S. Toso (2009) Diseguaglianza, povertà e politiche pubbliche, Il Mulino, Bologna
- G. Carbonaro (2002) (a cura di): Studi sulla povertà. Problemi di misura e analisi comparative, FrancoAngeli, Milano [capitoli 1, 2 (lettura dei concetti fondamentali) e 3]
- Istat, anni vari, Statistiche sulla povertà e le condizioni di vita (scaricabili gratuitamente da [www.istat.it](http://www.istat.it))
- Human Development Report anni vari (scaricabile gratuitamente da <http://hdr.undp.org>)
- Articoli scientifici sulla povertà longitudinale forniti dalla docente nella sezione "Materiale didattico" del Portale Unipa.

N.B. PER GLI STUDENTI PROVENIENTI DAL C.L. SECI E/O CHE ABBIANO GIÀ SOSTENUTO L'ESAME DI <MISURE DI POVERTÀ> SARÀ PREDISPOSTO UN PROGRAMMA DIFFERENZIATO SEMPRE SUI TEMI DI POVERTÀ E DISUGUAGLIANZA.

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|-------------------------------|---|
| <b>AMBIT</b>                  | 21029-Attività formative affini o integrative |
| <b>INDIVIDUAL STUDY (Hrs)</b> | 55  |
| <b>COURSE ACTIVITY (Hrs)</b>  | 20  |

### EDUCATIONAL OBJECTIVES OF THE MODULE

This module aims at providing insights on approaches, measures and drivers of poverty, as well as of inequality and social exclusion, which are interrelated phenomena.

During lectures and computer lab sessions several approaches to poverty measurement will be discussed, evaluating implications of any choice at the basis of the measurement and data selection processes.

By means of lectures students will gain:

- a) capacity to compute and interpret main statistical indices of poverty and inequality, and to perform basic poverty studies in developed and developing countries;
- b) operative knowledge of main national and international databases/survey for poverty and inequality studies;
- c) ability to describe a country profile, with specific reference of statistics about poverty and inequality, and relying also on international literature.

PLEASE NOTE THAT STUDENTS WHO PASSED THE EXAM OF "POVERTY MEASUREMENT" IN THEIR DEGREE COURSE (L-37) WILL BE PROVIDED WITH A DIFFERENT SYLLABUS ON THE TOPIC OF POVERTY AND INEQUALITY.

## SYLLABUS

| Hrs | Frontal teaching   |
|-----|--|
| 2   | An introduction to the course: aims, topics, teaching methods, assessment methods. The multiple acceptations of "poverty" and their interrelations.  |
| 2   | Poverty, material deprivation, inequality and social exclusion: concepts and measurements.   |
| 2   | How to measure poverty: poverty of what?; unit of analysis; temporal dimension; absolute and relative poverty; subjective and objective poverty; sectional and longitudinal poverty.   |
| 2   | Poverty lines and equivalence scales. Diffusion and intensity of poverty.  |
| 2   | Studying poverty and inequality in developing countries. The World Bank poverty lines.   |
| 3   | Poverty dynamics. Transient and persistent poor: differences and consequences. Transition matrices. Longitudinal/chronic poverty indices.  |
| Hrs | Practice   |
| 5   | Teamwork in computer lab. How to access data sources and properly select relevant information. Students' discussions are followed by a debate among teacher and students in which we together evaluate different implications of strategy of measurement and controversial data. |
| Hrs | Workshops  |
| 2   | Use of main statistical database to study poverty (e.g. World Bank development indicators, FAO, IMF; UNDP, etc.).  |