SAPIENZA
UNIVERSITÀ DI ROMA

Intensive Summer School in Health Economics and Econometrics (SSHEE)* Study Plan

Academic Year	2022-2023
Department	Economia e diritto
Programme Activation Resolution Date	13/03/2023
Programme Coordinator	Debora Di Gioacchino
Minimum Number of Students Admitted	10
Maximum Number of Students Admitted	20
Admission Requirements	Bachelor's Degree
Learning Outcomes	The aim of the course is to provide students with the most widely used econometric tools in the field of empirical research applied to health economics.
Expected Results	At the end of the course, the student will have acquired the skills to critically appraise theoretical and empirical literature evaluating policies implemented at a national and a regional/local level.
Starting date	05/10/2023
Schedule	05.10.2023 8.30-13.30 and 15.30-18.00 06.10.2023 8.30-14.00 and 18-20 07.10.2023 8.30-14.00 and 18-20
Internship	Not expected
Lessons Modalities	convenzionaleIn person

ECTS	4
Sapienza Professors Involved in the Teaching Activities	Francesco Bloise Silvia Coretti Debora Di Gioacchino Marco Geraci Emanuela Ghignoni Marco Ventura
Affiliate Partner	Comune di Ventotene (Agreement to be defined)
Venues (Agreement required)	Ventotene (LT)
Enrolment fee – two instalments max	350 Euros
Any partial or total exemptions from the payment - portion pertaining to the Department expressed as a percentage (whole number) with regard to the registration fee (max two types of exemptions)	Scholarships for students enrolled in Sapienza partially or fully covering the enrolment fee
Students Office	sshee@uniroma1.it

Programme Activities

Activity	Professor in Charge	Academic Field	CFU	Duration (hours)	Type of Activities	Language
Activity I: **Healthcare systems: objectives and design** Module 1: *Health inequality and health disadvantage*. This module discusses the meaning of inequality in health, access and financing, health disadvantage, gender, ethnicity with examples. Module 2: *Policy evaluation.* This module includes the introduction to difference-in-difference (D-i-D) estimator and recent development along with applications to health data.	Marco Ventura and Joan Costa-i-Font	SECS-P02 and SECS-P05	1	6	Lectures	English
Activity II: **Statistical tools for health economics.** Module 1: *Statistical analysis in the presence of heterogeneity (theory and practice).* Because of heterogeneity, a treatment, an exposure or a policy intervention may lead to differences in outcomes above and beyond those explained by the analytical model or the observed characteristics of the statistical units or both. As a result, the generalizability of a study's findings may be seriously compromised. The aim of this module is to give an overview of some methods that are relevant to statistical modelling in the presence of heterogeneity. Practical examples will be provided using cutting-edge R packages for analysis and visualization. Module 2: S*urvival analysis (theory and practice).* In this module, starting from the relevant literature, examples will be given to illustrate the	Marco Geraci and Valeria Fano	SECS-S01	1	6	Lectures	English

applications of survival analysis in epidemiology and public health. Simplified STATA dataset from real studies will be used to introduce the theory and the STATA commands. The following will be covered: Kaplan-Meier method for estimating the survival function; Cox proportional hazards model to identify risk factors and estimate adjusted risk ratios; model fitting, assumption of proportional hazards, stratification.						
Activity III: Econometrics for health economics. Module 1: *Spatial Health Economics (SHE).* In the first part students will familiarize with spatial econometric models in health economics and illustrate how to incorporate spatial effects using standard econometric models. In the second part students will learn how spatial econometrics methods can be applied within the health economics literature on topics such as hospital competition and hospital productivity. Module 2: *Machine learning applied to health economics*. This module introduces machine-learning techniques focusing on prediction and identification problems with applications in health economics.	Francesco Moscone and Francesco Bloise	SECS-P02 and SECS-P03	1	6	Lectures	English
Activity IV: **Miscellaneous** Module 1: Introduction to Stata. Module 2: Survival analysis (case studies). Module 3: Discussion and concluding remarks.	Silvia Coretti, Emanuela Ghignoni, Valeria Fano	SECS-P02 and SECS-P03	1	6	Discussion and group activity	English

Final Exam	Not expected	SSD Not expected			*Dissertation, project work etc*.
Further Activitied	Not expected	SSD Not expected			*Seminars, Conventions, etc*
		TOTAL ECTS	**4**		

The minimum number of ECTS that can be assigned to an activity is 1 (pursuant to art.23 of the University Didactic Regulations it is specified that 1 ECST is equal to 6 - 10 hours of lessons, or 9 - 12 hours of laboratory or guided exercise, or 20 - 25 hours of professionalising training activities in small groups or assisted study).

Teaching staff

Francesco Bloise is Assistant Professor of Economics Policy at Sapienza University of Rome. His research interests include, intergenerational mobility, equality of opportunity, income and wealth inequality, and machine learning prediction and identification methods. He collaborates as an economic consultant with the World Bank and the Italian Ministry of Economy and Finance.

Joan Costa-i-Font is Professor of Health Economics at London School of Economics (LSE), team leader of the Ageing and Health Incentives Lab (AHIL), and a faculty associate of the International Inequalities Institute (dove). He is network research fellow at CESifo, HEDG, and IZA. His research interests include aging and long-term care, health inequalities, and health systems comparison.

Silvia Coretti is Assistant Professor of Public Finance at Sapienza University of Rome, Italy. She holds a MSc in Health Economics from the University of York and a PhD from the Catholic University of the Sacred Heart. Her research activities are related to the evaluation of health policies with a specific focus on adoption of technologies and their effects of efficiency and productivity.

Debora Di Gioacchino is Full Professor at Sapienza University of Rome, where she teaches economic policy and health economics. She holds a PhD from the University of Cambridge. Her research interests include political economics, inequalities, education, health and social policy. She has published in international peer reviewed journals.

Valeria Fano is a Senior Statistician with a Master degree in Epidemiology. She works in the Lazio region Health System in Rome; she is also a Contract Professor at Sapienza University of Rome, where she teaches Performance Evaluation at the Master of Health Economics. Her research interests include epidemiology, inequalities in health and analyses of integrated information systems. She has published in national and international peer reviewed journals.

Marco Geraci is Full Professor of Statistics at Sapienza University of Rome. He obtained an MSc in Economics from the University of Sassari and a PhD in Applied Statistics from the University of Florence. He carried out academic research in several institutions, including the National Council of Research (Italy), the University of Manchester (UK), University College London (UK) and the University of South Carolina (USA), where he currently holds an appointment as Adjunct Professor of Biostatistics. His research interests are in statistical methods and applications for health sciences.

Emanuela Ghignoni is joined professor at Sapienza University of Rome. She teaches Labour Economics and Labour Policies in the same institution. Her main research interests lie in the field of labour economics and education economics. She published several articles in peer-reviewed national and international journals on overeducation, fixed-term contracts, female employment, investments in training, agglomeration economies and social return to education

Francesco Moscone is Professor at Brunel University London and associate Professor at the Department of Economics of Ca' Foscari, University of Venice. He is also teaching at the Catholic University of the Sacred Heart (Rome). His research interests are health economics and applied econometrics.

Marco Ventura is Associate Professor of econometrics at Sapienza University of Rome. He received a PhD from Sapienza University of Rome, Faculty of Statistics. His research interests are in the field of causality with a special focus on the evaluation of policy programs. He worked as a consultant for the Ministry of Economic Development. He is author of articles published in well-established scientific journals.