



**Spring 2021 – Econometrics**  
**ECON-SHU9301**  
**Monday 9:30AM-12:15PM CET (Florence time)**  
**Remote Classroom**

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### **Spring 2021**

We know that you may be taking courses at multiple locations this semester. If you are enrolled in this course 100% remotely and are not a Go Local/Study Away student for this course site, please make sure that you've completed the online academic orientation via NYU Classes, so you are aware of site-specific support, policies and procedures.

Please contact [florence.academicssupport@nyu.edu](mailto:florence.academicssupport@nyu.edu) if you have trouble accessing the NYU Classes site.

If you are attending in person, you will be instructed to choose your seat on the first day and are expected to use that seat for the entire semester due to NYU COVID-19 safety protocol.

### **Class Description:**

**Prerequisites:** A Statistics class covering probability, estimation, confidence intervals and hypothesis testing.

**Aim of the Course:** Econometrics allows us to bridge theory about economic behavior both at the macro and the micro levels and measurement, that is the quantification of some observable phenomena. In this course we will take statistical instruments, probability and inference, and apply them to the workhorse of econometrics, i.e., the linear regression model. In it the goal is to ascertain whether the information we have available in the form of variables measured on individuals is of any use in determining the outcome of a variable of interest. While statistical association is always possible, econometrics is primarily concerned with the capability of this model to be used for prediction (i.e. evaluate the response in correspondence of hypothetical features in an individual), policy analysis (i.e. studying the conditions under which we can think of manipulating some instrument available to the policy maker, think of a tariff on imports, and determine the possible outcome - think of corresponding future growth). We need to navigate through technical dexterity (understanding the tools) and empirical relevance (applying the tools): using a software such as STATA or R will take away the burden on formula memorization and will allow us to focus on interpretation of the results.

### **Instructor Details:**

Name: Giampiero M. Gallo

Appointments available via Zoom by contacting either instructor by email

## **Inclusion, Diversity, Belonging and Equity**

NYU is committed to building a culture that respects and embraces diversity, inclusion, and equity, believing that these values – in all their facets – are, as President Andrew Hamilton has said, “...not only important to cherish for their own sake, but because they are also vital for advancing knowledge, sparking innovation, and creating sustainable communities.” At NYU Florence, we are committed to creating a learning environment that:

- fosters intellectual inquiry, research, and artistic practices that respectfully and rigorously take account of a wide range of opinions, perspectives, and experiences; and
- promotes an inclusive community in which diversity is valued and every member feels they have a rightful place, is welcome and respected, and is supported in their endeavors.

NYU Florence embraces diversity and recognizes our responsibility to foster an open, welcoming environment where students, faculty and staff of all backgrounds can collaboratively learn, work and communicate. We will continually strive to work together to nurture a culture of inclusivity, compassion and mutual respect.

There are both on-campus and NYU Global resources available to students and staff wishing to share their experiences with us or offer suggestions for improvement. On-campus, students, faculty and staff can contact any one of our three local IDBE Liaisons, Mary Barbera, Lisa Cesarani and Angelica Pesarini. Students can also contact the Office of Academic Support or the Office of Student Life to talk to a member of staff. Students are invited to join the NYU Florence IDBE Student Committee and take on an active role in planning encouraging dialogues on issues around diversity and inclusion.

The Global NYU community can access the Office of Global Inclusion, Diversity and Strategic Innovation who works closely with students, faculty, administrators, and staff, regardless of where you may be located, to help make every aspect of NYU more equitable. You can contact them at [globalinclusion@nyu.edu](mailto:globalinclusion@nyu.edu) for more information and resources.

## **Bias Response Line**

NYU's Bias Response Line (BRL) provides an open forum to members of our community and helps to ensure that our community is equitable and inclusive. It is a centralized way to share or report experiences and concerns regarding bias, discrimination, or harassing behavior that may occur within our local or global NYU community. To contact the BRL, please email or call: 212-998-2277.

## **Desired Outcomes:**

On completion of this course, students should:

- Have improved their mastery of economic and business-related concepts;
- Have performed graphical and quantitative treatment of the theories;
- Have made relevant connections between theory and real-world examples, through references to media material, readings or case studies;
- Find an increased interest to read economic and business-related materials in the media.

## **Assessment Components**

Attendance and Participation: 30%

Midterm Exam: 30%

Final Exam: 40%

At the end of each class, we may suggest a kahoot game with multiple choice questions on the day's issues, which will be answered via an app to be downloaded from Google Play or Apple Store.

Failure to submit or fulfill any required course component results in failure of the class.

## **Assessment Expectations:**

Grade A: The student's work demonstrates an understanding of the subject that goes beyond assigned course readings. The student writes essays/exam questions that are an original synthesis of source materials, demonstrating the ability to evaluate source material critically. Written arguments are clear, well-organized and well-presented; oral presentations are concise, incisive and supplemented by appropriate visual materials. The student has distinguished himself/herself throughout the course of the semester for his/her contributions to class discussion. The student is regularly turning in answers to Problem Sets which are complete and accurate.

Grade B: The student's work shows a clear understanding of assigned readings and materials covered in class. The student writes clear, well-organized and well-presented essays/exam questions; oral presentations are concise, incisive and supplemented by appropriate visual materials. The student is prepared in class and asks relevant questions. The student is regularly turning in answers to Problem Sets but they are not complete or accurate.

Grade C: The student's work shows a basic understanding of the subject treated in assigned readings and covered in class. However, written and/or oral work is deficient in one or more of the following areas: clarity, organization or content. The student's work is generally in need of improvement. The student has not turned in satisfactory answers to Problem Sets.

Grade D: The student's work shows occasional understanding of the subject treated in assigned readings and covered in class. Written and/or oral work is deficient in one or more of the follow areas: clarity, organization or content. The student does not participate in class discussion and has not frequented the instructor's office hours.

Grade F: The student's work does not demonstrate understanding of the subject treated in assigned readings and covered in class. Written and/or oral work are either insufficient or are not submitted. The student appears unprepared in class and has not frequented the instructor's office hours.

## **Grading Guidelines**

A=94-100

A minus=90-93

B plus =87-89

B=84-86

B minus =80-83

C plus=77-79

C=74-76

C minus =70-73

D+=67-69

D=65-66

F=below 65

## **Grading Policy:**

Please refer to Assessment Expectations and the policy on late submission of work

## **Academic Accommodations:**

Academic accommodations are available for students with documented disabilities. Please contact the Moses Center for Students with Disabilities at 212-998-4980 or see the [Moses Center](#) for further information.

Students with disabilities who believe that they may need accommodations in a class are encouraged to contact the Moses Center for Students with Disabilities at (212) 998-4980 as soon as possible to better ensure that such accommodations are implemented in a timely fashion. For more information, see [Study Away and Disability](#).

## **Attendance Policy:**

Study abroad at Global Academic Centers is an academically intensive experience, in which students from a wide range of backgrounds exchange ideas in discussion-based seminars. Learning in such an environment depends on the active participation of all students. In blended course format, students, based on need and circumstance may attend class sessions in-person or remote synchronously online. Both are acceptable and would be considered present in class. Since classes typically meet once or twice a week, even a single absence can cause a student to miss a significant portion of a course. **To ensure the integrity of this academic experience, class attendance at the Global Sites is expected. Unexcused absences will affect students' semester participation grade.** Faculty will take attendance at the beginning of every class. For Go Local Students studying in Florence, **If you have scheduled a remote course immediately preceding/following an in-person class, you may want to discuss where at the Academic Center the remote course can be taken.** Both in-person and remote students are responsible for making up any work missed due to absence. Repeated unexcused absences in a course may result in failure. Please be in contact with your professor via email to meet during office hours to discuss any missed lectures and assignments and arrange a timeline for submitting missed work.

## **Excused Absences:**

In case of absence, regardless of the reason, the student is responsible for completing missed assignments, getting notes and making up missed work in a timely manner based upon a schedule that is mutually agreed upon between the faculty member and the student. **Absences should be reported to the [Office of Academic Support](#) via email and to your faculty member BEFORE your class meets for lesson.**

## **Categories of Excused Absences**

### ***Absence Due to Illness***

- If you are a Go Local student present in Florence and feel sick, please contact the Office of Student Life for assistance.
- COVID-19 related family emergencies will be considered as an excused absence
- The Office of Student Life, when assisting you in cases of severe or extended illness, will coordinate with the Office of Academic Support to properly record your absences

### ***Due to Religious Observance***

- Students observing a religious holiday during regularly scheduled class time are entitled to miss class without any penalty to their grade. This is for the holiday only and does not include the days of travel that may come before and/or after the holiday
- Please note that no excused absences for reasons other than illness can be applied retroactively.

**Students with questions or needing clarification about this policy are instructed to contact a member of the Office of Academic Support located in Villa Ulivi or to email [florence.academicssupport@nyu.edu](mailto:florence.academicssupport@nyu.edu)**

## Late Submission of Work

- All course work must be submitted on time, in class on the date specified on the syllabus.
- To request an extension on a deadline for an assignment, students must speak to the professor one week prior to the due date
- To receive an incomplete for a course at the end of the semester, two weeks before final exams, both the student and the faculty member must meet with the Assistant Director of Academic Affairs to review the request and if granted, they must both sign an Incomplete Contract detailing the terms for completing missing coursework.

## Plagiarism Policy

PLAGIARISM WILL NOT BE TOLERATED IN ANY FORM:

The presentation of another person's words, ideas, judgment, images or data as though they were your own, whether intentionally or unintentionally, constitutes an act of plagiarism.

In the event of suspected or confirmed cases of plagiarism, the faculty member will consult first with the Assistant Director for Academic Affairs as definitions and procedures vary from school to school.

## Writing Center:

The Writing Center, located in Villa Ulivi, offers you feedback on any type of writing, at any stage in planning or drafting. Sign up for a consultation at the [Writing Center's website](#) and submit your working draft or ideas a day in advance to [NYU Florence Writing Center](#). Drop in for a consultation M-Th, but remember that appointments are given priority. Be assured that very rough drafts are welcome. Please note that we do not correct or "fix" your writing; instead, we prompt you to think and work. Our aim is to create stronger writers in the long term, not necessarily perfect papers in the short term

## Required Text(s):

Jeffrey M. Wooldridge - "Introductory Econometrics: A Modern Approach" (7<sup>th</sup> edition) - Cengage Learning (2016). There is a discount made available by the publisher <Students can acquire their textbook – print/ebook via our [website](#) where we have a 30% discount offer: Code to be used so they can save 30% **877GENE30** - 30% discount and valid until end of February 2021.>

Some sections of chapters may not be covered in class and students will be held responsible for the related material. We will make use of take-home-individual quizzes to assess knowledge throughout (instructions will follow).

For more information on Books and Course Materials go [here](#).

## Supplemental Texts(s):

- Some supplementary material will be provided during the semester
- The web page for the course on [newclasses.nyu.edu](http://newclasses.nyu.edu) where announcements for supplementary required readings will be posted.

- The [student resources](#) website for the book (includes a tutorial for STATA)

## **Internet Research Guidelines:**

The careful use of internet resources is encouraged and a list of recommended websites will be given. Failure to cite internet and other non-traditional media sources in your written work constitutes plagiarism.

## **Additional Required Equipment:**

A pocket calculator (with the same functions as like a Casio FX-220 Plus) is required, to be brought to every class. Please download app Kahoot! for Apple or Android. We will be using the econometric software STATA which will be made available on virtual machines [STATA](#)

## **Class Assignments and Topics:**

Session 1 - Feb. 1, 2021

General introduction to the course

Wooldridge Ch. 1

Session 2 - Feb. 8, 2021

Fundamentals of Probability

Wooldridge Appendix B

Session 3 - Feb. 15, 2021

Fundamentals of Mathematical Statistics

Wooldridge Appendix C

Session 4 - Feb. 18, 2021 [**Thursday**]

The Simple Regression Model

Wooldridge Ch. 2

Session 5 - Feb. 22, 2021

Multiple Regression Analysis: Estimation

Wooldridge Ch. 3

Session 6 - Mar. 1, 2021

Multiple Regression Analysis: Inference

Wooldridge Ch. 4

Session 7 - Mar. 8, 2021

Multiple Regression Analysis: Further Issues

Wooldridge Ch. 6

Session 8 - Mar. 15, 2021

Midterm

Session 9 - Mar. 22 Review of the material on the Midterm

Session 10 - Mar. 29, 2021

Multiple Regression Analysis w/ Qualitative Information

Wooldridge Ch. 7

Apr. 5 Holiday (no class)

Session 11 - Apr. 12, 2021

Heteroskedasticity

Wooldridge Ch. 8

Apr. 19 Holiday (no class)

Session 12 - Apr. 26, 2021

Basic Regression Analysis with Time Series Data

Wooldridge Ch. 10

Session 13 - May. 3, 2021

Pooling Cross Sections across Time: Simple Panel Data Method

Wooldridge Ch. 13

Session 14 – May 10, 2021

Buffer Class: discussion of some empirical econometric results in published articles

Wooldridge Ch. 19

May 17, 2021

**Final Exam**

Session 15 – date TBA

Extra review session or participation in seminar/conference

## Problem Sets Schedule

Problem Sets are a Gym to practice and train. We will take notice of the submissions and the quality of your work without a formal grading. You will be given an answer sheet with suggested solutions and that should be the basis for your reviewing topics you missed and then refer to us for further clarifications if need be.

	Topics	Distribution Date	Due Date
Problem Set 1	Chapter 1 and Appendices B and C	Feb. 17	Feb. 24
Problem Set 2	Chapters 2 and 3	Feb. 24	Mar. 3
Problem Set 3	Chapters 4 and 6	<i>Mar. 6</i>	<i>Mar. 13</i>
Problem Set 4	Chapters 7 and 8	Apr. 21	Apr. 28
Problem Set 5	Chapters 10 and 13 and overall review	Apr. 28	May 5

## Class Time Expectations

**In light of the unique circumstances of blended instruction, we ask students to consider the following class time expectations to ensure a productive class:**

- Prepare your workspace for class, limit non-class activities during synchronous class time.
- If you are not using your cell phone to follow the lesson, cell phones should be turned off or in silent mode during class time.
- If deemed necessary by the study away site (i.e. a COVID related need), synchronous class sessions may be recorded and archived for other students to view. This will be announced at the beginning of class time.
- Students should be respectful and courteous at all times to all participants in class. Consider using the chat function or “raise hand” function in order to add your voice to class discussions.
- Please be mindful of your microphone and video display during synchronous class meetings. Ambient noise and some visual images may disrupt class time for you and your peers.

## Final Exams

Final exams must be taken at their designated times. Should there be a conflict between final exams, please bring it to the attention of the Office of Academic Support [florence.academicssupport@nyu.edu](mailto:florence.academicssupport@nyu.edu) as soon as this is known to facilitate alternate arrangements. Final exams may not be taken early, and students should not plan to leave the site before the end of the finals period.

## Required Co-curricular Activities

N/A

## **Suggested Co-curricular Activities**

Additional suggested optional co-curricular activities will be announced in class and/or via email by the professor throughout the semester.

## **Your Instructor**

Giampiero M. Gallo holds a Ph.D. in Economics from the University of Pennsylvania (1989) and is a Consigliere (Judge) in the Italian Court of Audits, a judicial body in charge of preventive and subsequent controls on public expenditure. He was elected Fellow of the Society for Financial Econometrics in 2018. He was Professor of Econometrics at the School of Economics and Management at the Università di Firenze, Italy between 1991 and 2017. He taught or held positions at Queen Mary University of London, Johns Hopkins University, Bologna, LUISS, New York University, UC San Diego, Université de Paris (Panthéon-Sorbonne), UNC-Chapel Hill, Université de Genève and worked as a research fellow at the UN-UPenn Project Link, at the Central Planning Bureau in The Hague, and at INSEE-CREST in Paris. His research interests are in financial volatility modeling, financial crises, macroeconomic forecasting, public debt sustainability having published extensively in top Journals. He was appointed Economic Advisor to Prime Minister Renzi between 2014 and 2016, and he served as President of the Italian Econometric Association (SIDE) in the same period. He is married with two children. He is an avid urban biker and a collector of Le Petit Prince editions.