# The Master of Science in Quantitative Economics

The Master of Science in Quantitative Economics program emphasizes the development of applied economics concepts, theory, and applications. Program entrants can matriculate as one-year, full-time, in-residence students, or as part-time students who work during the day. The program is flexible enough to be done over three years allowing working professionals the opportunity to increase their human capital while maintaining their careers. All classes occur during the evening. Program entry points are in late August (Fall Term) or early June (Summer Term). The priority application deadline is 45 days prior to start of one of the program entry terms.

The goal of the program is to create a professional economist. This is a person who can speak and write the language of economics, is able to manipulate economic models, collect the relevant data to conduct empirical studies, and is proficient at communicating the results of their analysis to other economists as well as to the general public. While these should be the goals of any master's level program in economics, our program goes farther. We add a forecasting component: graduates will be able to design economic forecast models, program them on a computer, and present the results to a public audience.

Full-time students are potentially eligible to work at CLU's Economic Research and Forecast Center (CERF) where they work alongside supervising faculty and have the opportunity to participate in economic analysis.

M.S. Quantitative Economics program graduates will be well prepared to accept jobs in the economics, banking, corporate finance, public finance, money management, forecasting, marketing, and real estate fields. They will be particularly strong in financial analysis and risk management, data analysis and empirical computations including model design, database design, statistical estimation, and forecasting.

### **Key Program Components**

Knowledge of economic theory guides applied economic data analysis. It allows the researcher to ask the appropriate questions. The program includes extensive theoretical training in microeconomics, macroeconomics, environmental economics, and in financial economics.

Applied economic data analysis requires extensive knowledge of economic data, statistical/econometric training, and familiarity with a moderate level of computer programming. The program includes a four-course sequence dedicated to econometrics, data, and computer software. Each course builds on the previous course(s). By the end of the program, the student can write a computer program that builds an economic forecast model and computes the forecast. Completing such a task requires the joint integration of economic theory, statistics/econometrics, data knowledge, and computer programming that makes most other empirical projects seem easy by comparison.

### **Admission Requirements**

- 1. Bachelor's degree with demonstrated quantitative ability
  - a. Calculus: One course required; one year recommended
  - b. Statistics: One course required; one year recommended
  - c. Econometrics: One course highly recommended
  - d. Computer Programming: Some familiarity and a willingness to learn required
- 2. Grade Point Average (GPA) of 3.0 or higher (or equivalent)
- 3. GRE of 1000 or GMAT of 500<sup>1</sup>
- 4. Two letters of recommendation
- 5. Statement of Purpose
- 6. International applicants must provide evidence of English language proficiency
  - a. TOEFL of 570/230/89; or
  - b. IELTS 6.5; or
  - c. Successful completion of the highest level of an English language program recognized by CLU
- 7. Work experience preferred but not required
- GRE/GMAT may be waived, depending upon candidate's academic background.

## Requirements for the Master of Science in Quantitative Economics

The curriculum includes a total of 12 graduate courses (36 credits). All courses are offered in 11-week terms.

#### **Required Courses**

(36 Credits)

ECON 510	Econometrics 1	3
ECON F11	Economotrics 2	2

ECON 511 Econometrics 2

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ECON 512	Econometrics 3	3
ECON 513	Economic Modeling	3
ECON 520	Microeconomic Theory - Part 1	3
ECON 521	Microeconomic Theory - Part 2	3
ECON 530	Macroeconomic Theory - Part 1	3
ECON 531	Macroeconomic Theory - Part 2	3
ECON 543	Financial Economics - Part I	3
ECON 544	Financial Economics - Part II	3
ECON 545	,Financial Economics - Part III	3
ECON 555	Economics and Environmental Policy	3
Total Hours		36