

# ECONOMICS, MASTER OF ARTS (M.A.) WITH A CONCENTRATION IN STATISTICS

## Program accreditation

Association to Advance Collegiate Schools of Business (<http://www.aacsb.edu/>)

## Program goal

The Master of Arts in Economics is designed to enhance the student's abilities to use economic modeling to conduct applied analytical and econometric research. Students in this program are expected to demonstrate competence over a rigorous and current core curriculum in microeconomic and macroeconomic theory and in econometrics.

Graduates of the program should be well-qualified to conduct applied economic analysis in either a government or corporate research setting. The program also is an excellent preparation for entry into a doctoral program in economics or finance.

## Student learning outcomes

1. Students will be able to use a standard macroeconomic model to analyze the impact of a policy action on major macroeconomic variables.
2. Students will be able to use advanced microeconomic models to analyze the behavior of consumers and firms and the impact of public policy on economic welfare.
3. Students will understand the properties of the ordinary least squares estimator under different assumptions about the data-generating process encountered in economics.
4. Students will understand circumstances in which estimation of an econometric time series model is appropriate.
5. Students will understand the application of models appropriate for analysis of limited dependent variables encountered in economics.

## VCU Graduate Bulletin, VCU Graduate School and general academic policies and regulations for all graduate students in all graduate programs

The VCU Graduate Bulletin website documents the official admission and academic rules and regulations that govern graduate education for all graduate programs at the university. These policies are established by the graduate faculty of the university through their elected representatives to the University Graduate Council.

It is the responsibility of all graduate students, both on- and off-campus, to be familiar with the VCU Graduate Bulletin as well as the Graduate School website (<http://www.graduate.vcu.edu/>) and academic regulations in individual school and department publications and on program websites. However, in all cases, the official policies and procedures of the University Graduate Council, as published on the VCU Graduate Bulletin and Graduate School websites, take precedence over individual program policies and guidelines.

Visit the **academic regulations section** for additional information on academic regulations for graduate students. (<http://bulletin.vcu.edu/academic-regs/>)

## Degree candidacy requirements

A graduate student admitted to a program or concentration requiring a final research project, work of art, thesis or dissertation, must qualify for continuing master's or doctoral status according to the degree candidacy requirements of the student's graduate program. Admission to degree candidacy, if applicable, is a formal statement by the graduate student's faculty regarding the student's academic achievements and the student's readiness to proceed to the final research phase of the degree program.

Graduate students and program directors should refer to the following degree candidacy policy as published in the VCU Graduate Bulletin for complete information and instructions.

Visit the **academic regulations section** for additional information on degree candidacy requirements. (<http://bulletin.vcu.edu/academic-regs/grad/candidacy/>)

## Graduation requirements

As graduate students approach the end of their academic programs and the final semester of matriculation, they must make formal application to graduate. No degrees will be conferred until the application to graduate has been finalized.

Graduate students and program directors should refer to the following graduation requirements as published in the Graduate Bulletin for a complete list of instructions and a graduation checklist.

Visit the **academic regulations section** for additional information on graduation requirements. (<http://bulletin.vcu.edu/academic-regs/grad/graduation-info/>)

## Other information

School of Business **policies and procedures for graduate students** are available on the school's website.

Apply online today. (<https://www.vcu.edu/admissions/apply/graduate/>)

## Admission requirements

Degree:	Semester(s) of entry:	Deadline dates:	Test requirements:
M.A.	Fall	Jul 1	GMAT or GRE*
	Spring	Nov 1	
	Summer	Mar 1	

In addition to the general admission requirements of the VCU Graduate School (<http://bulletin.vcu.edu/graduate/study/admission-graduate-study/admission-requirements/>), applicants must submit an up-to-date resume.

\*Test requirements may be waived. Waiver request information can be found on the Graduate Studies in Business webpage (<https://business.vcu.edu/graduate-studies/how-to-apply/>).

## Degree requirements

In addition to the VCU Graduate School graduation requirements (<http://bulletin.vcu.edu/academic-regs/grad/graduation-info/>), the M.A. in Economics degree with a concentration in statistics requires a minimum

of 30 credit hours of 500- and 600-level course work. The 30 hours must include eight core courses, one restricted elective and one additional approved elective.

## Prerequisite undergraduate and or foundation courses

Prerequisite and/or foundation courses may be waived for students who present satisfactory equivalent preparation at either the undergraduate or graduate level. This determination is made by the faculty adviser at the time of admission.

Course	Title	Hours
<b>Prerequisite undergraduate course</b>		
MATH 307	Multivariate Calculus	4
<b>Foundation course</b>		
ECON 501	Introduction to Econometrics	3

## Curriculum requirements

Course	Title	Hours
<b>Required courses</b>		
ECON 604	Advanced Microeconomic Theory	3
ECON 607	Advanced Macroeconomic Theory	3
ECON 612	Econometrics	3
ECON 614	Mathematical Economics	3
ECON 641	Econometric Time-series Analysis	3
ECON 642	Panel and Nonlinear Methods in Econometrics	3
STAT/BIOS 513	Mathematical Statistics I	3
STAT/BIOS 514	Mathematical Statistics II	3
<b>Statistics elective</b>		
Select one course from the list of approved statistics electives below.		3
STAT 546	Linear Models	
STAT 623	Discrete Multivariate Analysis	
STAT 643	Applied Linear Regression	
STAT 744	Regression II	
STAT 642	Design and Analysis of Experiments I	
STAT 650	Design and Analysis of Response Surface Experiments	
STAT 742	Design and Analysis of Experiments II	
STAT 613	Stochastic Processes	
STAT 675	Time Series Analysis I	
STAT/OPER 636	Machine Learning Algorithms	
STAT/OPER 736	Mathematics of Knowledge and Search Engines	
STAT 645	Bayesian Decision Theory	
STAT 745	Advanced Bayesian Statistics	
STAT/OPER 648	Systems Reliability Analysis	
STAT/OPER 649	Statistical Quality Control	
<b>Approved elective</b>		
Select additional course from the list of approved statistics electives above, or any course from the list of approved electives below.		3
ECON 600:609		

ECON 613:697	
FIRE 600:699	
HADM 602	Health System Organization, Financing and Performance
HADM 610	Health Analytics and Decision Support
HADM 624	Health Economics
HCPR 601	Introduction to Health Policy
INFO 614	Data Mining
MKTG 600:699	
MGMT 600:699	
PADM 601	Principles of Public Administration
PADM 603	Politics and Economics
PADM 609	Financial Management in Government
PADM 622	Public Sector Budgeting
PADM 625	Public Policy Analysis
SCMA 600:699	
Total Hours	30

The minimum total of graduate credit hours required for this degree is 30.

## Accelerated opportunities

The department offers opportunities for qualified undergraduate students to earn both an undergraduate and graduate degree in a minimum of five years by completing approved graduate courses during the senior year of their undergraduate program. Students interested in an accelerated program from the School of Business (<http://bulletin.vcu.edu/undergraduate/business/economics/economics-bs/#acceleratedtext>) can see details on the program page in the Undergraduate Bulletin. The College of Humanities and Sciences also offers this accelerated option (<http://bulletin.vcu.edu/undergraduate/college-humanities-sciences/economicsprogram/economics-bs/#acceleratedbsandmatext>) in their liberal arts-focused economics degree.

### Contact

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### Additional contact

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**Program website:** [business.vcu.edu/graduate-studies/master-of-arts-in-economics](http://business.vcu.edu/graduate-studies/master-of-arts-in-economics) (<http://business.vcu.edu/graduate-studies/master-of-arts-in-economics/>)