# APPLIED ECONOMICS, MASTER OF ARTS (0410)

#### Interim Program Coordinator

Dr. Christopher Biolsi, christopher.biolsi@wku.edu

The Master of Arts in Applied Economics offers three concentrations: General concentration, Mathematical Methods concentration, and Business Economics concentration. The General concentration emphasizes the training of students with backgrounds in economics and other arts and sciences for careers that require strong quantitative skills, technical tools, and communication abilities that can be applied to a broad range of subjects. The Mathematical Methods concentration is designed for students with a strong background in mathematics to gain applied knowledge in economics. The Business Economics concentration couples the economic theory and research methods with coursework from the MBA program to prepare students for careers in the private sector. Students in the Business Economics concentration can earn graduate certificates in Economic Data Analytics, and either Supply Chain Management or Data Analytics certificates while completing the program.

Students in any of the three concentrations may also enroll in approved courses from related master programs including but not limited to the Master in Business Administration, the Master in Public Administration, and the Master in Health Administration to enhance their range of knowledge and experience. In addition to course work, the program utilizes practicum, an end-of-program applied project, and non-credit workshops to build specific technical skills and to enhance employability of graduates.

Through a partnership with SAS Institute, students enrolled in the program may be able to earn a Tier 1 SAS Academic Specialization in Economic Data Analytics: https://www.credly.com/org/sas/badge/sas-western-kentucky-university-academic-specialization-in-economic-data-analytics (https://www.credly.com/org/sas/badge/sas-western-kentucky-university-academic-specialization-in-economic-data-analytics/)

#### Concentration(s)

- General (ECGE)
- Mathematical Methods (ECMM)
- Business Economics (ECBE)

#### Joint Undergraduate Master's Program (JUMP)

This degree offers a Joint Undergraduate Master's Program (JUMP) which provides academically outstanding students the opportunity to complete both an undergraduate and graduate degree in an accelerated timeframe. Contact the graduate program coordinator for additional information.

## **Program Admission**

### **General Concentration**

- 1. Three letters of recommendation from individuals familiar with the student's academic performance.
- 2. Official GRE score taken within the last five years. Minimum GRE quantitative score of 147 on a 170 point scale. Alternate graduate admission test scores such as the GMAT or LSAT will be considered on a case by case basis.

<sup>1</sup> All applicants must have completed an introductory microeconomics course (ECON 202 or equivalent), an introductory macroeconomics course (ECON 203 or equivalent), and an introductory statistics course (ECON 206 or equivalent). Students who have not completed an intermediate level course (300 level or higher) in microeconomics, macroeconomics, or statistics are advised to complete online preparatory work in the area of deficiency prior to admission.

### **Mathematical Methods Concentration**

- 1. Graduate Studies admission application which includes submission of official undergraduate degree transcripts with a major in Economics, Mathematics, Math-Econ or other related majors.<sup>2</sup>
- 2. Three letters of recommendation from individuals familiar with the student's academic performance.
- 3. Minimum undergraduate GPA of 2.75 (4.0 scale).
- 4. Official GRE score taken within the last five years. Minimum GRE quantitative score of 147 on a 170 point scale. Alternate graduate admission test scores such as the GMAT or LSAT will be considered on a case by case basis. GRE requirement is waived for students who have earned an undergraduate degree from WKU and have a minimum GPA of 3.3 in their major.
- <sup>2</sup> All applicants must have completed a calculus sequence through multivariable calculus, discrete mathematics, principles of micro- and macroeconomics, and one semester of junior or senior level probability theory.

#### **Business Economics Concentration**

- 1. Graduate Studies admission application which includes submission of official undergraduate degree transcripts.<sup>1</sup>
- 2. Three letters of recommendation from individuals familiar with the student's academic performance.
- 3. Minimum undergraduate GPA of 2.75 (4.0 scale).
- 4. Official GRE score taken within the last five years. Minimum GRE quantitative score of 147 on a 170 point scale. Alternate graduate admission test scores such as the GMAT or LSAT will be considered on a case by case basis.

#### **Graduate Studies Admission**

Please refer to the admission section (http://catalog.wku.edu/graduate/ admission/) of this catalog for Graduate Studies admission requirements.

## **Degree Requirements (30 hours)**

Code Required Courses	Title	Hours
ECON 465G	Regression and Econometric Analysis <sup>1</sup>	3
ECON 502	Applied Micro Economic Theory	3
ECON 503	Applied Macroeconomic Theory	3
ECON 506	Applied Statistical Methods	3
ECON 594	Forecasting	3
Electives		
Concentration		15
Total Hours		30

<sup>1</sup> If ECON 465 was taken at the undergraduate level, this course must be substituted with either a MATH, ECON, or STAT course from the list of the electives.

#### **General Concentration**

Code	Title	Hours
<b>Required Course</b>		
ECON 596	Applied Economics Project	3-6
Electives		
Select 9-12 hours of advisor approved ECON graduate courses		9-12
Total Hours		15

### **Mathematical Methods Concentration**

Code	Title	Hours
Required Course		
ECON 596	Applied Economics Project	3
Electives		
Select 12 hours from the	following: <sup>2</sup>	12
ECON 507	Data Methods in Economics	
ECON 571	Public Policy Economics	
ECON 585	Topics in Macroeconomics	
ECON 597	Practicum in Economics	
ECON 598	Independent Study Economics	
ECON 400G	Issues in Capital Market Economics	
ECON 410G	Seminar in Economics	
ECON 420G	Public Sector Economics	
ECON 430G	Environmental and Resource Economics	
ECON 434G	The Economics of Poverty and Discrimination	
ECON 440G	American Industry: Structure, Performance and Policy	
ECON 445G	Economics of Healthcare	
ECON 464G	Introduction to Mathematical Economics	
ECON 496G	International Monetary Economics	
MATH 405G	Numerical Analysis I	
MATH 406G	Numerical Analysis II	
MATH 431G	Intermediate Analysis I	
MATH 470G	Introduction to Operations Research	
MATH 482G	Probability & Statistics II	
MATH 529	Applied Probability	
MATH 531	Advanced Differential Equations	
MATH 532	Real Analysis	
MATH 540	Stochastic Processes	
MATH 541	Graph Theory	
MATH 542	Advanced Topics in Discrete Mathematics	
MATH 570	Topics in Operations Research	
MATH 590	Special Topics in Mathematics	

Total Hours		15
STAT 550	Statistical Methods II	
STAT 549	Statistical Methods I	
MATH 598	Graduate Seminar: Communicating Mathematics and Technical Writing	

#### **Business Economics Concentration**

Code	Title	Hours
Select 15 hours with adv		15
MGT 510	Advanced Organizational Behavior	
BA 513	Contemporary Business Analytics	
ACCT 515	Managerial Accounting	
MKT 517	Advanced Marketing	
FIN 519	Advanced Managerial Finance	
MGT 590	Strategic Business Concepts and Applications	
MGT 576	Supply Chain Management	
MGT 583	Procurement Management	
MGT 584	Supply Chain Analytics	
BDAN 513	Contemporary Business Analytics	
BDAN 515	Data Management	
BDAN 517	Predictive Analytics	
BDAN 519	Visualization and Decision Making	
ECON 400G	Issues in Capital Market Economics	
ECON 420G	Public Sector Economics	
ECON 430G	Environmental and Resource Economics	
ECON 434G	The Economics of Poverty and Discrimination	
ECON 440G	American Industry: Structure, Performance and Policy	
ECON 445G	Economics of Healthcare	
ECON 451G	Games and Strategy	
ECON 464G	Introduction to Mathematical Economics	
ECON 496G	International Monetary Economics	
ECON 507	Data Methods in Economics	
ECON 571	Public Policy Economics	
ECON 596	Applied Economics Project	
Total Hours		15

#### **Total Hours**

At least 9 hours must be MATH or STAT courses.
At least 12 hours must be BA or BDAN courses.