

## New Program Proposal

Date Submitted: 02/14/19 1:54 pm

### Viewing: **ECONMS : Economic Analytics, Master of Science**

Last edit: 03/21/19 1:58 pm

Changes proposed by: kboston

Submitter: 4622	User ID: kboston	Phone:
Program Status	Active	
Academic Level		
Type of proposal	Major/Field of Study	
Select a reason for this new program	Adding New Degree--(LOI 1, Proposal-1)	
Are you adding a concentration?	No	
Are you adding a track?	No	
Are you adding a focused study?	No	
Effective Catalog Year	Fall 2020	
College/School Code	Walton College of Business(WCOB)	
Department Code	Department of Economics(ECON)	
Program Code	ECONMS	
Degree	Master of Science	
CIP Code		

#### In Workflow

1. WCOB Dean Initial
2. Provost Initial
3. Director of Program Assessment and Review
4. Registrar Initial
5. Institutional Research
6. ECON Chair
7. WCOB Curriculum Committee
8. WCOB Faculty
9. WCOB Dean
10. Global Campus
11. Dean of University Libraries
12. Provost Review
13. University Course and Program Committee
14. Graduate Committee
15. Faculty Senate
16. Provost Final
17. Provost's Office-- Documentation sent to System Office
18. Higher Learning Commission
19. Board of Trustees
20. ADHE Initial
21. ADHE Final
22. Provost's Office-- Notification of Approval
23. Registrar Final

## 24. Catalog Editor Final

**Approval Path**

1. 02/12/19 1:20 pm  
Karen Boston  
(kboston):  
Approved for WCOB  
Dean Initial
2. 02/13/19 4:01 pm  
Terry Martin  
(tmartin): Approved  
for Provost Initial
3. 02/14/19 1:41 pm  
Alice Griffin  
(agriffin): Rollback  
to Initiator
4. 02/21/19 9:56 am  
Karen Boston  
(kboston):  
Approved for WCOB  
Dean Initial
5. 02/23/19 8:39 am  
Terry Martin  
(tmartin): Approved  
for Provost Initial
6. 02/25/19 2:54 pm  
Alice Griffin  
(agriffin): Approved  
for Director of  
Program  
Assessment and  
Review
7. 03/01/19 7:41 am  
Lisa Kulczak  
(lkulcza): Approved  
for Registrar Initial
8. 03/01/19 8:28 am  
Gary Gunderman  
(ggunderm):  
Approved for

- Institutional  
Research
9. 03/01/19 8:44 am  
Raja Kali (kali):  
Approved for ECON  
Chair
  10. 03/01/19 8:55 am  
Karen Boston  
(kboston):  
Approved for WCOB  
Curriculum  
Committee
  11. 03/01/19 8:55 am  
Karen Boston  
(kboston):  
Approved for WCOB  
Faculty
  12. 03/01/19 8:56 am  
Karen Boston  
(kboston):  
Approved for WCOB  
Dean
  13. 03/01/19 4:32 pm  
Miran Kang (kang):  
Approved for Global  
Campus
  14. 03/01/19 4:42 pm  
Carolyn Allen  
(challen): Approved  
for Dean of  
University Libraries
  15. 03/07/19 7:52 am  
Terry Martin  
(tmartin): Approved  
for Provost Review
  16. 03/21/19 2:16 pm  
Alice Griffin  
(agriffin): Approved  
for University

Course and Program  
 Committee  
 17. 04/18/19 4:44 pm  
 Pat Koski (pkoski):  
 Approved for  
 Graduate  
 Committee

45.0603 - Econometrics and Quantitative Economics.

Program Title

Economic Analytics, Master of Science

Program Delivery

Method

Online/Web-based

Is this program interdisciplinary?

No

Does this proposal impact any courses from another College/School?

No

What are the total hours needed to complete the program? 30

## On-line/Web-based Information

Reason for offering

Web-based Program

To provide opportunities for students to complete the program in an online format.

Maximum Class Size 20

for Web-based

Courses

Course delivery mode

<b>Method(s)</b>
Online

Class interaction mode

<b>Method(s):</b>
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<b>Method(s):</b>
Electronic Bulletin Boards
E-mail
Blog

Percent Online

100% with No Required Campus Component

Provide a List of  
Services Supplied by  
Consortia Partners or  
Outsourced  
Organization

The only service outsourced is online proctoring service. The University of Arkansas partners with ProctorU for online test proctoring services for some online exams.

Estimate Costs of the  
Program over the  
First 3 Years

The program will be initially funded using Walton College operational funds and, eventually, program revenues as they are generated. Start-up marketing and recruiting costs will initially be supported by the College. Administrative responsibilities will be handled by the Economics Department Masters Program Coordinator.

List Courses Taught  
by Adjunct Faculty

Upload  
Memorandum of

Understanding Forms  
(if required)

## Program Requirements and Description

### Requirements

The Master of Science in Economic Analytics is an intensive program that will guide students through economic modeling and theory to computational practice and cutting-edge tools, providing a thorough training in descriptive, predictive, and prescriptive analytics. Students will be armed with a solid knowledge of econometric and machine learning methods, optimization, and computing. These “big-data” skills, combined with knowledge of economic modeling, will enable them to identify, assess, and seize the opportunity for data-driven value creation in the private and public sector.

Upon successful completion of the program, students will be eligible to receive a Enterprise Systems (Business Analytics Concentration) Graduate Certificate in addition to the MS in Economic Analytics degree. Students must separately apply for the Certificate prior to degree conferral.

#### Prerequisites to Degree Program:

Students entering the M.S. in Economic Analytics program are expected to have already mastered basic economic concepts or, demonstrated, with an official GMAT or GRE test score, the ability to master economic concepts taught in the program. Students without academic backgrounds in economics may be required to take additional hours or noncredit preparatory classes prior to enrollment in the M.S. program. International applicants must submit an acceptable TOEFL or IELTS score, or complete the Intensive English Language Program (Spring International Language Center) and receive an English proficiency recommendation for admission. Other admissions criteria can be considered on a case by case basis. Students from all academic backgrounds are encouraged to apply.

#### Requirements for the Master of Science Degree:

Requirements include one or more courses from each of the following core areas: Data Management, Economic Models, Econometrics and Data Science, and Communication and Professional Development.

Students whose previous studies or experience indicate mastery of basic economic concepts must satisfactorily complete the 30 hours of course work listed below.

<u><a href="#">ECON 5243</a></u>	Managerial Economics	3
<u><a href="#">ECON 5263 Applied Microeconomics</a></u>	<u>Course ECON 5263 Applied Microeconomics Not Found</u>	3
<u><a href="#">ECON 5743</a></u>	Introduction to Econometrics	3
<u><a href="#">ECON 5753</a></u>	Forecasting	3
<u><a href="#">ECON 5763 Economic Analytics</a></u>	<u>Course ECON 5763 Economic Analytics Not Found</u>	3
<u><a href="#">ECON 5783 Applied Microeconometrics</a></u>	<u>Course ECON 5783 Applied Microeconometrics Not Found</u>	3
<u><a href="#">ECON 636V</a></u>	Special Problems in Economics	3
<u><a href="#">ISYS 5103</a></u>	Data Analytics Fundamentals	3
<u><a href="#">ISYS 5833</a></u>	Data Management Systems	3
<u><a href="#">ISYS 5843</a></u>	Seminar in Business Intelligence and Knowledge Management	3

Total Hours

30

**Additional Degree Requirements, Non-Thesis Option**

In addition to 30 hours of required coursework, students must take a comprehensive exam. The comprehensive exam will take the form of the final project in ECON 5763 Economic Analytics (tools and project). An individual's grade of B or above in the project will be considered a pass on the comprehensive exam.

**Program Costs**

Existing resources on campus will be used. Existing faculty in Economics and Information Systems will teach the courses. Except for three new proposed courses, the other courses are already offered on a regular basis.

For the three new courses, the department has plans to re-organize faculty teaching to be able to fully staff these. Currently the department has two assistant professors who are on reduced teaching loads. One of these faculty members will come off their teaching reductions in the next year (Fall 2019), and the other will increase his teaching load in Fall 2020. In addition, the department is hiring a new faculty member to join the department in Fall 2019.

As a result, based on current faculty resources the department's capabilities are aligned with the ability to offer three new courses. If the proposed program experiences rapid growth in the number of students, then resource constraints will be re-evaluated in the future.

Marketing and recruiting costs for the program will be supported by the College.

**Library Resources**

Existing resources on campus will be used.

**Instructional****Facilities**

Existing resources on campus will be used.

**Faculty Resources**

As noted above, for the three new courses, the department has plans to re-organize faculty teaching to be able to fully staff these. Currently the department has two assistant professors who are on reduced teaching loads. One of these faculty members will come off their teaching reductions in the next year (Fall 2019), and the other will increase his teaching load in Fall 2020. In addition, the department is hiring a new faculty member to replace a faculty who left the department. This faculty member will join the department in Fall 2019. As a result, based on current faculty resources the department's capabilities are aligned with the ability to offer three new courses.

List Existing Certificate or Degree Programs  
that Support the Proposed Program

<b>Program(s)</b>
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<b>Program(s)</b>
ECONMA - Economics, Master of Arts
INSYMI - Information Systems, Master of Information Systems

Are Similar Programs available in the area?

No

Estimated Student Demand for Program      10-15

Scheduled Program Review Date      2021-2022

Program Goals and Objectives

**Program Goals and Objectives**

The Master of Science in Economic Analytics is an intensive program that will guide students through economic modeling and theory to computational practice and cutting-edge tools, providing a thorough training in descriptive, predictive, and prescriptive analytics. Students will be armed with a solid knowledge of econometric and machine learning methods, optimization, and computing. These “big-data” skills, combined with knowledge of economic modeling, will enable them to identify, assess, and seize the opportunity for data-driven value creation in the private and public sector.

Learning Outcomes

**Learning Outcomes**

Students will have the ability to apply econometric and machine learning methods, optimization, and computing to identify, assess, and seize the opportunity for data-driven value creation in the private and public sector.

Examinations will involve problem solving and practicum-style data-analysis, depending upon the course.

Description and Justification for this request

<b>Description of request</b>	<b>Justification for request</b>
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Description of request	Justification for request
<p>A new, 30 hour Master of Science in Economic Analytics utilizing three existing courses within the Master of Information Systems, four existing courses within the Master of Arts and Economics and three new Economics courses proposed for the program.</p>	<p>The digital revolution ignited an explosion of data. The availability of data is no longer a constraint to answering important questions. The critical constraint is now the ability to analyze, digest, visualize, and ultimately harness the data to drive decision making in business, science, and society. The Master of Science in Economic Analytics program will guide students through economic modeling and theory to computational practice and cutting-edge tools, providing a thorough training in descriptive, predictive, and prescriptive analytics. Students will be armed with a solid knowledge of econometric and machine learning methods, optimization, and computing. These “big-data” skills, combined with knowledge of economic modeling, will enable them to identify, assess, and seize the opportunity for data-driven value creation in the private and public sector.</p>

#### Upload attachments

[ECONMS - New Degree - Faculty CVs.pdf](#)

[ECONMS - New Degree - Letters of Support.pdf](#)

[ECONMS - New Degree - LOI-Proposal.docx](#)

#### Reviewer Comments

**Alice Griffin (agriffin) (02/14/19 10:32 am):** BOT approval date will need to be inserted into the proposal, once the dates have been published.

**Alice Griffin (agriffin) (02/14/19 10:32 am):** Item 14 on proposal document.

**Alice Griffin (agriffin) (02/14/19 10:35 am):** Inserted scheduled program review date. It is anticipated that program will be reviewed at the same time as the AACSB accreditation visit. College is encouraged to review and make appropriate changes if necessary.

**Alice Griffin (agriffin) (02/14/19 10:44 am):** Adjusted formatting, minor edits, and renamed documents to match BOT naming convention.

**Alice Griffin (agriffin) (02/14/19 10:45 am):** Edited course descriptions in proposal to match course descriptions submitted into Course Management. Also, changed "short courses" to special problems for consistency. College is encouraged to review these changes.

**Alice Griffin (agriffin) (02/14/19 10:46 am):** Courses in red within program requirements have been reviewed and are currently pending UCPC approval.

**Alice Griffin (agriffin) (02/14/19 1:41 pm):** Rollback: Please adjust delivery mode to include online delivery. Also modify the justification as discussed in correspondence. Thank you.

**Gary Gunderman (ggunderm) (03/01/19 8:28 am):** This CIP code is appropriate.

**Alice Griffin (agriffin) (03/21/19 1:58 pm):** Uploaded revised LOI-Proposal document to include action taken at UCPC regarding the addition of AGECE 5613 as an equivalent prerequisite.

Inserted additional requirements statement in catalog copy on behalf of submitter. Inserted statement from proposal into the library resources field and the instructional facilities field. College is encouraged to review and edit as appropriate.

Key: 680