

# Cover Sheet: Request 10474

## New Course:: ECO 4421: Econometrics

### Info

Process	Course New Ugrad/Pro
Status	Pending
Submitter	Knight,David T thomas.knight@ufl.edu
Created	10/5/2015 9:27:11 PM
Updated	3/10/2016 3:20:39 PM
Description	There is no undergraduate econometrics course in the UF Catalog. This course will serve as an upper-level elective within the B.A. Economics degree program. This course is especially beneficial for students wishing to pursue graduate studies in economics, finance, or public policy analysis.

### Actions

Step	Status	Group	User	Comment	Updated
Department	Approved	CLAS - Economics 011643001	Knight, David T		11/3/2015
Added ucc_consult_Econometrics.pdf					11/3/2015
College	Approved	CLAS - College of Liberal Arts and Sciences	Pharies, David A		1/26/2016
No document changes					
University Curriculum Committee	Comment	PV - University Curriculum Committee (UCC)	Case, Brandon	Added to the March agenda.	2/17/2016
No document changes					
University Curriculum Committee	Pending	PV - University Curriculum Committee (UCC)			2/17/2016
No document changes					
Statewide Course Numbering System					
No document changes					
Office of the Registrar					
No document changes					
Student Academic Support System					
No document changes					
Catalog					
No document changes					
College Notified					
No document changes					

# Course|New for request 10474

## Info

**Request:** New Course:: ECO 4421: Econometrics  
**Submitter:** Knight,David T thomas.knight@ufl.edu  
**Created:** 11/3/2015 9:56:45 AM  
**Form version:** 7

## Responses

### Recommended Prefix

*Enter the three letter code indicating placement of course within the discipline (e.g., POS, ATR, ENC). Note that for new course proposals, in rare cases SCNS will assign a different prefix.*

Response:  
ECO

### Course Level

*Select the one digit code preceding the course number that indicates the course level at which the course is taught (e.g., 1=freshman, 2=sophomore, etc.).*

Response:  
4

### Number

*Enter the three digit code indicating the specific content of the course based on the SCNS taxonomy and course equivalency profiles. For new course requests, this may be XXX until SCNS assigns an appropriate number.*

Response:  
421

### Lab Code

*Enter the lab code to indicate whether the course is lecture only (None), lab only (L), or a combined lecture and lab (C).*

Response:  
None

### Course Title

*Enter the title of the course as it should appear in the Academic Catalog.*

Response:  
Econometrics

### Transcript Title

*Enter the title that will appear in the transcript and the schedule of courses. Note that this must be limited to 21 characters (including spaces and punctuation).*

Response:  
Econometrics

### **Effective Term**

*Select the requested term that the course will first be offered. Selecting "Earliest" will allow the course to be active in the earliest term after SCNS approval. If a specific term and year are selected, this should reflect the department's best projection. Courses cannot be implemented retroactively, and therefore the actual effective term cannot be prior to SCNS approval, which must be obtained prior to the first day of classes for the effective term. SCNS approval typically requires 2 to 6 weeks after approval of the course at UF.*

Response:  
Earliest Available

### **Effective Year**

*Select the requested year that the course will first be offered. See preceding item for further information.*

Response:  
Earliest Available

### **Rotating Topic?**

*Select "Yes" if the course will have rotating (varying) topics in different terms. For rotating topics courses, the course title in the Schedule of Courses and the transcript can vary with the topic.*

Response:  
No

### **Amount of Credit**

*Select the number of credits awarded to the student upon successful completion, or select "Variable" if the course will be offered with variable credit and then indicate the minimum and maximum credits per section. Note that credit hours are regulated by Rule 6A-10.033, FAC. If you select "Variable" for the amount of credit, additional fields will appear in which to indicate the minimum and maximum number of total credits.*

Response:  
4

### **Repeatable Credit?**

*Select "Yes" if the course may be repeated for credit. Some courses, such as independent study courses, will have rotating (variable) topics. Students may be allowed to repeat these courses provided the content is different.*

Response:

No

### **S/U Only?**

Select "Yes" if all students should be graded as S/U in the course. Note that each course must be entered into the UF curriculum inventory as letter-graded or S/U. A course may not have both options. However, letter-graded courses allow students to take the course S/U with instructor permission.

Response:

No

### **Contact Type**

Select the best option to describe course contact type. This selection determines whether base hours or headcount hours will be used to determine the total contact hours per credit hour. Note that the headcount hour options are for courses that involve contact between the student and the professor on an individual basis.

Response:

Regularly Scheduled

- Regularly Scheduled [base hr]
- Thesis/Dissertation Supervision [1.0 headcount hr]
- Directed Individual Studies [0.5 headcount hr]
- Supervision of Student Interns [0.8 headcount hr]
- Supervision of Teaching/Research [0.5 headcount hr]
- Supervision of Cooperative Education [0.8 headcount hr]

Contact the Office of Institutional Planning and Research (352-392-0456) with questions regarding contact type.

### **Degree Type**

Select the type of degree program for which this course is intended.

Response:

Baccalaureate

### **Weekly Contact Hours**

Indicate the number of hours faculty will have contact with students each week on average throughout the duration of the course.

Response:

4

### **Category of Instruction**

Indicate whether the course is introductory, intermediate or advanced. Introductory courses are those that require no prerequisites and are general in nature. Intermediate courses require some

*prior preparation in a related area. Advanced courses require specific competencies or knowledge relevant to the topic prior to enrollment.*

Response:  
Advanced

- 1000 and 2000 level = Introductory undergraduate
- 3000 level = Intermediate undergraduate
- 4000 level = Advanced undergraduate
- 5000 level = Introductory graduate
- 6000 level = Intermediate graduate
- 7000 level = Advanced graduate

*4000/5000 and 4000/6000 levels = Joint undergraduate/graduate (these must be approved by the UCC and the Graduate Council)*

### **Delivery Method(s)**

*Indicate all platforms through which the course is currently planned to be delivered.*

Response:  
On-Campus

### **Course Description**

*Provide a brief narrative description of the course content. This description will be published in the Academic Catalog and is limited to 50 words or fewer. See course description guidelines.*

Response:  
Introduces concepts and methods used in empirical economic research. Emphasizes practical use of basic econometric techniques to estimate economic relationships and evaluate policy. Covers topics needed to plan and implement empirical projects, and understand potential problems with the empirical analyses of others.

### **Prerequisites**

*Indicate all requirements that must be satisfied prior to enrollment in the course. Prerequisites will be automatically checked for each student attempting to register for the course. The prerequisite will be published in the Academic Catalog and must be formulated so that it can be enforced in the registration system. Please note that upper division courses (i.e., intermediate or advanced level of instruction) must have proper prerequisites to target the appropriate audience for the course.*

Response:  
STA 2023 & (MAC 2233 or higher) & ECO 3101

*Completing Prerequisites on UCC forms:*

- Use "&" and "or" to conjoin multiple requirements; do not use commas, semicolons, etc.
- Use parentheses to specify groupings in multiple requirements.
- Specifying a course prerequisite (without specifying a grade) assumes the required passing grade is D-. In order to specify a different grade, include the grade in parentheses immediately after the course number. For example, "MAC 2311(B)" indicates that students are required to obtain a grade of B in Calculus I. MAC2311 by itself would only require a grade of D-.
- Specify all majors or minors included (if all majors in a college are acceptable the college code is sufficient).

- "Permission of department" is always an option so it should not be included in any prerequisite or co-requisite.

*Example: A grade of C in HSC 3502, passing grades in HSC 3057 or HSC 4558, and major/minor in PPHP should be written as follows:  
HSC 3502(C) & (HSC 3057 or HSC 4558) & (HP college or (HS or CMS or DSC or HP or RS minor))*

### **Co-requisites**

*Indicate all requirements that must be taken concurrently with the course. Co-requisites are not checked by the registration system.*

Response:  
None

### **Rationale and Placement in Curriculum**

*Explain the rationale for offering the course and its place in the curriculum.*

Response:  
Econometrics is a required course for all economics majors at most peer institutions. The Department of Economics intends to add it as a required course for the B.A. Economics program once the department has the necessary teaching resources to support this course as a degree requirement.

No undergraduate econometrics course is currently listed in the UF Catalog. The most similar course is STA 4210 (Regression Analysis), but it does not include the invaluable economic applications that makeup an econometrics course. More technically, STA 4210 does not cover the treatment of endogenous variables, which is one of the most essential pieces of econometrics.

The external consult form raises the important question about economics majors who are also pursuing major and/or minor programs that require STA 4210. The Department of Economics believes that the two courses are considerably different and offer students different forms of training. As such, the department does not see a reason to limit students receiving credit for both courses. Moreover, the proposed econometrics course counts as an economics major elective; it is not a required course. Thus, economics majors with a major or minor in statistics (or another program that requires STA 4210) are not forced to take both courses.

### **Course Objectives**

*Describe the core knowledge and skills that student should derive from the course. The objectives should be both observable and measurable.*

Response:  
1) Explain the intuition of general statistical concepts, including standard errors, hypothesis testing, and confidence intervals. 2) Communicate the mathematical theory behind ordinary least squares, as well as more advanced regression tools. 3) Learn to disentangle causation from correlation.

### **Course Textbook(s) and/or Other Assigned Reading**

*Enter the title, author(s) and publication date of textbooks and/or readings that will be assigned, or a representative list of readings.*

Response:

J. M. Wooldridge, *Introductory Econometrics: A Modern Approach* (fifth edition),  
South-Western Publishing

### **Weekly Schedule of Topics**

*Provide a projected weekly schedule of topics. This should have sufficient detail to evaluate how the course would meet current curricular needs and the extent to which it overlaps with existing courses at UF.*

Response:

Week 1: Mathematical and Statistical Tools  
Wooldridge, Appendices A & B

Week 2: Review of Statistical Inference  
Wooldridge, Appendix C

Week 3: Introduction to Econometrics  
Wooldridge, Chapter 1

Week 4: Simple Linear Regression  
Wooldridge, Chapter 2  
Assignment 1 Due

Week 5: Multiple Regression  
Wooldridge, Chapter 3  
Assignment 2 Due

Week 6: Exam 1 & Introduction to R

Week 7: Multiple Regression: Inference  
Wooldridge, Chapter 4

Week 8: OLS Asymptotics  
Wooldridge, Chapter 5

Week 9: Multiple Regression: Data Scaling and Functional Form  
Wooldridge, Chapter 6  
Assignment 3 Due

Week 10: Dummy Variables  
Wooldridge, Chapter 7

Week 11: Heteroskedasticity  
Wooldridge, Chapter 8  
Assignment 4 Due

Week 12: Specification and Data Issues  
Wooldridge, Chapter 9

Week 13: Introduction to Panel Data  
Wooldridge, Chapters 13 & 14  
Assignment 5 Due

Week 14: IV and 2SLS

Wooldridge, Chapters 15 & 16  
Assignment 6 Due

Final Exam

### **Grading Scheme**

*List the types of assessments, assignments and other activities that will be used to determine the course grade, and the percentage contribution from each. This list should have sufficient detail to evaluate the course rigor and grade integrity.*

Response:

Numerical final grades will be calculated as a weighted average of the graded course assessments. The weights employed in this calculation are:

Average of 6 equally-weighted problem sets: 30%

Exam 1: 30%

Exam 2: 40%

The numerical final grade calculated above translates into a final letter grade according to the table below:

92.50-100: A

90.00-92.49: A-

87.50-89.99: B+

82.50-87.49: B

80.00-82.49: B-

77.50-79.99: C+

72.50-77.49: C

70.00-72.49: C-

67.50-69.99: D+

62.50-67.49: D

60.00-62.49: D-

0-59.99: E

All grades are rounded to the nearest hundredth point.

Grading and attendance policies are consistent with UF policies, which can be found at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

<http://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

### **Instructor(s)**

*Enter the name of the planned instructor or instructors, or "to be determined" if instructors are not yet identified.*

Response:

Scott Kostyshak



**Thomas Knight**

Department of Economics  
340 Matherly Hall  
PO Box 117140  
Gainesville, FL 32611-7140

Phone: 813-857-5107

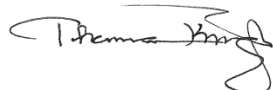
Fax: 352-392-7860

Email: [thomas.knight@ufl.edu](mailto:thomas.knight@ufl.edu)

Dear Colleagues,

I am attaching email correspondence between the Chair of the Department of Statistics, Dr. Brett Presnell, and myself. It confirms that the Department of Statistics supports the addition of the proposed Econometrics course to the UF Catalog. Dr. Presnell addresses the concerns raised in his initial UCC Consult.

Kind Regards,



Thomas Knight  
*Associate Chair and Lecturer*

-----Original Message-----

From: Brett Presnell [<mailto:presnell@ufl.edu>]

Sent: Thursday, March 10, 2016 10:59 AM

To: Knight,David T,JR <[thomas.knight@ufl.edu](mailto:thomas.knight@ufl.edu)>

Subject: Re: Econometrics Course

> In the event that a student does not want to take both courses, they  
> could take another economics elective – the proposed course is a  
> major-level elective, not a required course.

That's fine with me. I thought that Econometrics was to be a required course for your majors.

Knight,David T,JR <[thomas.knight@ufl.edu](mailto:thomas.knight@ufl.edu)> writes:

> Hello Dr. Presnell,

>

> I wanted thank you again for providing a UCC External Consult for the  
> proposed Econometrics course. The course has been approved at the  
> college level, but the UCC asks for some additional clarification of  
> your consult form. In the form, you raised the important question of  
> students being required to take both courses if they were double  
> majoring in STA and ECO. My department's thought is that a student in  
> that position could benefit from taking both courses. The proposed  
> Econometrics course does not cover the statistical theory underlying  
> regression analysis, which I believe that the population of double  
> majors (and students looking to apply to economics graduate school)  
> should be exposed to. In the event that a student does not want to  
> take both courses, they could take another economics elective – the  
> proposed course is a major-level elective, not a required course. Any  
> thoughts that you have on this matter would be greatly appreciated, as  
> I will likely have to attend the upcoming UCC meeting.

>

> Thank you, again, for your time and consideration!

>

> Kind Regards,  
> Thomas Knight

> ---

> Thomas Knight, Ph.D.  
> Associate Chair and Lecturer  
> Department of Economics  
> University of Florida  
> Phone: (352)392-0151  
> Email: [thomas.knight@ufl.edu](mailto:thomas.knight@ufl.edu)

External Consultation Results (departments with potential overlap or interest in proposed course, if any)

Department	Name and Title
_____	_____
Phone Number	E-mail
_____	_____
Comments	

Department	Name and Title
_____	_____
Phone Number	E-mail
_____	_____
Comments	

Department	Name and Title
_____	_____
Phone Number	E-mail
_____	_____
Comments	