

Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).

See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures/> for a complete description of the rules governing curriculum & course changes.**TRIAL COURSE OR NEW COURSE PROPOSAL****SUBMITTED BY:**

Department	Economics	College/School	School of Management
Prepared by	Jungho Baek	Phone	2754
Email Contact	jbaek3@alaska.edu	Faculty Contact	Jungho Baek

**1. ACTION DESIRED**

(CHECK ONE):

Trial Course

New Course

X

**2. COURSE IDENTIFICATION:**

Dept

ECON

Course #

327

No. of Credits

3

Justify upper/lower division status &amp; number of credits:

This is an advanced economic statistics class that would be taken by economics majors. This is a 300-level course because the course matches SOM's peer institutions numbering of similar econometrics classes, which are always in the 300-level.

**3. PROPOSED COURSE TITLE:**

Introduction to Econometric Methods

**4. To be CROSS LISTED?**

YES/NO

No

If yes, Dept:

Course #

NOTE: Cross-listing requires approval of both departments and deans involved. Add lines at end of form for additional required signatures.

**5. To be STACKED?**

YES/NO

No

If yes, Dept.

Course #

How will the two course levels differ from each other? How will each be taught at the appropriate level?:

Stacked course applications are reviewed by the (Undergraduate) Curricular Review Committee and by the Graduate Academic and Advising Committee. Creating two different syllabi—undergraduate and graduate versions—will help emphasize the different qualities of what are supposed to be two different courses. The committees will determine: 1) whether the two versions are sufficiently different (i.e. is there undergraduate and graduate level content being offered); 2) are undergraduates being overtaxed?; 3) are graduate students being undertaxed? In this context, the committees are looking out for the interests of the students taking the course. Typically, if either committee has qualms, they both do. More info online – see URL at top of this page.

**6. FREQUENCY OF OFFERING:**

Offered as demand warrants

Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) — or  
As Demand Warrants**7. SEMESTER & YEAR OF FIRST OFFERING** (AY2013-14 if approved by 3/1/2013; otherwise AY2014-15)

Fall 2014

**8. COURSE FORMAT:**

NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council. Furthermore, **any core course compressed to less than six weeks must be approved by the Core Review Committee.**

COURSE FORMAT: (check all that apply)	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input checked="" type="checkbox"/> 6 weeks to full semester
OTHER FORMAT (specify)						
Mode of delivery (specify lecture, field trips, labs, etc)	Lecture					

<b>9. CONTACT HOURS PER WEEK:</b>	<b>3</b>	LECTURE hours/weeks		LAB hours /week		PRACTICUM hours /week
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Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See <http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-guidelines-for-computing-/> for more information on number of credits.

OTHER HOURS (specify type)	
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**10. COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):**

**Example of a complete description:**

**FISH F487 W, O Fisheries Management**

**3 Credits Offered Spring**

**Theory and practice of fisheries management, with an emphasis on strategies utilized for the management of freshwater and marine fisheries. Prerequisites: COMM F131X or COMM F141X; ENGL F111X; ENGL F211X or ENGL F213X; ENGL F414; FISH F425; or permission of instructor. Cross-listed with NRM F487. (3+0)**

**ECON F327 Introduction to Econometric Methods**

**3 credits Offered as demand warrants**

**ECON 327 is a one-semester undergraduate-level course in econometrics. While this course is basically a follow-up to ECON 227, the emphasis is on the application of econometrics in the analysis of economic and business problems. The main topics covered include a review of statistics, simple and multiple regression analysis, and important problems that may arise when applying regression analysis to real datasets such as multicollinearity, heteroskedasticity and serial correlation. Prerequisites: STAT F200X and ECON 227. (3+0)**

**11. COURSE CLASSIFICATIONS:** Undergraduate courses only. Consult with CLA Curriculum Council to apply S or H classification appropriately; otherwise leave fields blank.

H = Humanities		S = Social Sciences	
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Will this course be used to fulfill a requirement for the baccalaureate core? <b>If YES, attach form.</b>	<b>YES:</b>		<b>NO:</b>	<b>X</b>
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IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, <b>Format 6</b>		W = Writing Intensive, <b>Format 7</b>		X = Baccalaureate Core	
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**11.A Is course content related to northern, arctic or circumpolar studies? If yes, a "snowflake" symbol will be added in the printed Catalog, and flagged in Banner.**

<b>YES</b>		<b>NO</b>	<b>X</b>
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**12. COURSE REPEATABILITY:**

Is this course repeatable for credit?	<b>YES</b>		<b>NO</b>	<b>X</b>
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Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?

**TIMES**

If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course?

**CREDITS**

If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?

**CREDITS**

**13. GRADING SYSTEM: Specify only one. Note: Changing the grading system for a course later on constitutes a Major Course Change – Format 2 form.**

LETTER:

☒

PASS/FAIL:

☐**RESTRICTIONS ON ENROLLMENT (if any)****14. PREREQUISITES**

STAT F200X and ECON 227

These will be *required* before the student is allowed to enroll in the course.**15. SPECIAL RESTRICTIONS, CONDITIONS****16. PROPOSED COURSE FEES**

\$50

Has a memo been submitted through your dean to the Provost for fee approval?

Yes/No

**17. PREVIOUS HISTORY**

Has the course been offered as special topics or trial course previously?

Yes/No

☒

If yes, give semester, year, course #, etc.:

**18. ESTIMATED IMPACT**

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

None at this time

**19. LIBRARY COLLECTIONS**

Have you contacted the library collection development officer (kljensen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

No

Yes

☒**20. IMPACTS ON PROGRAMS/DEPTS**

What programs/departments will be affected by this proposed action?

Include information on the Programs/Departments contacted (e.g., email, memo)

None at this time

**21. POSITIVE AND NEGATIVE IMPACTS**

Please specify **positive and negative** impacts on other courses, programs and departments resulting from the proposed action.

None at this time as the course will be offered as demand warrants

**JUSTIFICATION FOR ACTION REQUESTED**

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

It is important for students majoring in economics to have a more thorough understanding of economic statistics and econometrics. This course will help students gain a better understanding of basic econometric techniques and their applications to business, economic and government policy. Many peer institutions such as Washington State, Oregon State, Gonzaga, and University of Oregon have a similar econometrics course at the 300-level.

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TO BE INSERTED FROM ORIGINAL COPY

**APPROVALS: Add additional signature lines as needed.**

	Date	
Signature, Chair, Program/Department of:		

	Date	
Signature, Chair, College/School Curriculum Council for:		

	Date	
Signature, Dean, College/School of:		

**Offerings above the level of approved programs must be approved in advance by the Provost.**

	Date	
Signature of Provost (if above level of approved programs)		

**ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION TO THE GOVERNANCE OFFICE**

	Date	
Signature, Chair Faculty Senate Review Committee: ___Curriculum Review ___GAAC ___Core Review ___SADAC		

**ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)**

	Date	
Signature, Chair, Program/Department of:		

	Date	
Signature, Chair, College/School Curriculum Council for:		

	Date	
Signature, Dean, College/School of:		

**ECONOMICS 327:  
INTRODUCTION TO ECONOMETRIC METHODS**

DUCKERING 342,                      M W F,                      10:30 a.m.-11:30 a.m.

**Instructor Information**

Instructor: Jungho, Baek  
Office Hours: Mon/Fri 3:30 -4:50 p.m. or by appointment  
Office Location: 213B Bunnell  
Phone: 474-2754  
E-mail: [jbaek3@alaska.edu](mailto:jbaek3@alaska.edu)

**Required Text:**

Maddala G.S. and Lahiri K., "Introduction to Econometrics (4<sup>th</sup> edition)", John Wiley & Sons 2009.

**Course Description**

ECON 327 is a one-semester undergraduate-level course in econometrics. While this course is basically a follow-up to ECON 227, the emphasis is on the application of econometrics in the analysis of economic and business problems. The main topics covered include a review of statistics, simple and multiple regression analysis, and important problems that may arise when applying regression analysis to real datasets such as multicollinearity, heteroskedasticity and serial correlation. Prerequisites: STAT F200X and ECON 227.

**Course Objectives**

The main objective of this course is to develop an understanding of basic econometric techniques and their applications to business, economic and government policy.

**Instructional Methods**

The course formats include class lectures with reading and homework assignments and hands on computer modeling.

**Grading Policy**

Grades will be based on performance in the following:

Attendance: 10%  
Homework: 10%  
Quizzes: 10%  
Two midterm exams: 35%  
Final exam: 35%

Grades are nominally determined by a weighted average of standard scores on attendance, homework, two midterm exams and the final exam. A standard scale will be used for grading (90%-100% =A; 80%-89% = B; 70%-79% = C; 60-69% =D; 59% and below =F).

### Attendance

You are expected to attend every class. You are allowed one unexcused absence without penalty. Each unexcused absence will lower your course grade by 2%. If you miss 5 unexcused absences, you will receive 0 points for attendance (please see the Course Policies for excused absences).

### Homework/Quizzes

Problem sets and quizzes will be assigned on a regular basis. You will receive a 10% penalty of the total score for each day a problem set is late. Problem sets may not be handed in once solutions have been distributed.

### Exams

There will be two one-hour midterm exams. The final exam will cover all course material, but will emphasize the material discussed after the second midterm exam. You will not be allowed a makeup exam unless you have an excused absence (please see the Course Policies for excused absences).

### **Course Policies**

Honesty is a primary responsibility of you and every other UAF student. The following are common guidelines regarding academic integrity, also see

<http://www.uaf.edu/catalog/current/academics/regs3.html>:

1. Students will not collaborate on any quizzes, in-class exams, or take-home exams that contribute to their grade in a course, unless the course instructor grants permission. Only those materials permitted by the instructor may be used to assist in quizzes and examinations.
2. Students will not represent the work of others as their own. A student will attribute the source of information not original with himself or herself (direct quotes or paraphrases) in compositions, theses, and other reports.
3. No work submitted for one course may be submitted for credit in another course without the explicit approval of both instructors.

The University has formal policies concerning missing class or exams for reasons of illness, death in the family, religious holidays, other exams, or other reasons. These policies will be followed in determining the required action. Two general principles should be kept in mind. First, when possible, arrangements are to be made in advance. Second, written documentation may be required to substantiate the conflict.

### **Support Services**

Some of economics TAs will be available for help. Students are also strongly recommended to use office hours.

### Disability Statement

UAF makes reasonable accommodations for persons with documented disabilities. Students should notify the Disability Services Coordinator located in the Center for Health and Counseling, and their instructors of any special needs. Instructors should be notified within the first days of classes.

### Course Outline

All of the readings are from the textbook, and are indicated by chapters and section numbers.

Week 1	I. Introduction 1. What is Econometrics?: Ch 1 2. Brief Review of Statistics: Ch 2 II. Simple Regression Analysis 1. Introduction: Ch 3.1 to Ch 3.3	HW#1
Week 2	2. The Method of Least Squares: Ch 3.4 3. Statistical Inference: Ch 3.5 4. Analysis of Variance for the Simple Regression Model: Ch 3.6 5. Alternative Functional Forms for Regression Model: Ch 3.9	HW#2 Quiz#1
Week 3	III. Multiple Regression Analysis 1. Introduction: Ch 4.1 to Ch 4.2 2. Statistical Inference: Ch 4.3 3. Interpretation of the Regression Coefficients: Ch 4.4 4. Analysis of Variance and Tests of Hypotheses: Ch 4.8 5. Degrees of Freedom and $R^2$ : Ch 4.10	HW#3
Week 4	6. Other Important Topics: Ch 4.5 to Ch 4.7, Ch 4.11 to Ch 4.12 Review	Midterm #1 (Ch1-4)
Week 5	IV. Heteroskedasticity 1. Detection of Heteroskedasticity: Ch 5.2 2. Consequences of Heteroskedasticity: Ch 5.3 3. Solutions to the Heteroskedasticity Problem: Ch 5.4	HW#4
Week 6	4. Other Topics Related to Heteroskedasticity: Ch 5.5 to Ch 5.6 V. Multicollinearity 1. Some Illustrative Examples: Ch 7.2 2. Some Measures of Multicollinearity: Ch 7.3 to Ch 7.4	HW#5
Week 7	3. Solutions to the Multicollinearity Problem: Ch 7.5 4. Miscellaneous Other Solutions: Ch 7.7 to Ch 7.8	Quiz#2
Week 8	VI. Dummy Variables 1. Dummy Variables for Changes in the Intercept: Ch 8.2 2. Dummy Variables for Changes in the Slope: Ch 8.3 3. Dummy Variables under Heteroskedasticity: Ch 8.6	HW#6
Week 9	4. Dummy Dependent Variables: Ch 8.7 Review	Midterm #2 (Ch5-8)

Week 10	VII. Introduction to Time-Series Analysis 1. Introduction: Ch 12.1 2. Two Methods of Time-Series Analysis : Frequency Domain and Time Domain: Ch 12.2 3. Stationarity and Nonstationary Time Series: Ch 12.3	HW#7
Week 11	4. Estimation of AR, MA, and ARMA Models: Ch 12.5 VIII. Models of Expectations and Distributed Lags 1. Model of Expectations: Ch 13.1 to Ch 13.4	HW#8
Week 12	2. Two Illustrative Examples: Ch 13.5 3. Expectational Variables and Adjustment Lags: Ch 13.6 to Ch 13.8	HW#9
Week 13	4. Rational Lags and Rational Expectations: Ch 13.9 to Ch 13.10 5. Serial Correlation Problem: Ch 13.13	Quiz#3
Week 14	IX. Serial Correlation 1. The Durbin-Watson Test: Ch 6.2 and Ch 6.6 2. Estimation Procedures with Autocorrelated Errors: Ch 6.3 to Ch 6.4	HW#10
Week 15	3. Effect of AR(1) errors on OLS Estimates: Ch 6.5 4. Tests for Serial Correlation in Models with Lagged Dependent Variables: Ch 6.7 to Ch 6.8 Review	HW#11

### Changes

All of the above schedule and procedures are subject to change. Changes, if needed, will be announced.