

Washington State University
MAJOR CURRICULAR CHANGE FORM - - NEW/RESTORE COURSE

- ☐ Please attach rationale for your request, a complete syllabus, and explain how this impacts other units in Pullman and other campuses (if applicable).
- ☐ Obtain all required signatures with dates.
- ☐ Provide original stapled packet of signed form/rationale statement/syllabus PLUS 10 stapled copies of complete packet to the Registrar's Office, campus mail code 1035.
- ☐ Submit one electronic copy of complete packet to wsu.curriculum@wsu.edu.

Requested Future Effective Date: Summer 2016 (term/year) Course Typically Offered: Summer

DEADLINES: For fall term effective date: **October 1st**; for spring or summer term effective date: **February 1st**. See instructions.

NOTE: Items received after deadlines may be put to the back of the line or forwarded to the following year. Please submit on time.

☒ **New Course**

☐ **Temporary Course**

☐ **Restore Course**

EconS 536 Applied Statistics and Econometrics for Economics and Finance
course subject/crosslist course no. title

3 (3 -0) Admission to MS in Finance program; or permission of instructor
Credit hrs lecture hrs lab or studio prerequisite

per week hrs per week

Description for catalog: see attached

Additional Attributes: Check all that apply.

☐ Crosslisting (between WSU departments)*

☐ Conjoint listing (400/500): _____

☐ Variable credit: _____

☐ Repeat credit (cum. max. hrs): _____

Special Grading: ☐ S, F; ☐ A, S, F (PEACT only); ☐ S, M, F (VET MED only); ☐ H, S, F (PHARMACY, PHARDSCI only)

☐ Cooperative with UI

☐ Other (please list request): _____

The following items require prior submission to other committees/depts. (SEE INSTRUCTIONS.)

☐ Request to meet Writing in the Major [M] requirement (Must have All-University Writing Committee Approval.)

☐ Request to meet UCORE in _____ (Must have UCORE Committee Approval >> See instructions.)

☐ Special Course Fee _____ (Must submit request to University Receivables.)

Contact: Karla Makus Phone number: 335-1667 Campus mail code: 6210

Email: makusk@wsu.edu Instructor, if different: Vicki McCracken

[Signature] 9/23/15
Chair/date

[Signature] 9/27/15
Dean/date

All-University Writing Com / date

Chair (if crosslisted/interdisciplinary)*

Dean (if crosslisted/interdisciplinary)*

UCORE Committee Approval Date

Catalog Subcommittee Approval Date

GSC or AAC Approval Date

Faculty Senate Approval Date

***If the proposed change impacts or involves collaboration with other units, use the additional signature lines provided for each impacted unit and college.**

MEMORANDUM

DATE: September 25, 2015
TO: Dr. Kim Kidwell
FROM: Dr. Vicki A. McCracken
SUBJECT: New Course Request for MS in Finance program

Proposed Course Title: Applied Statistics and Econometrics for Economics and Finance

Course Description: This course will take a data and problem driven approach, giving the student the skills to formulate, estimate, and interpret models that address problems in the area of finance and financial economics. While focused on problem solving, the course will also provide the student with an intuition behind the theoretical concepts. The course will review relevant basic statistics and probability concepts, and apply these to linear regression, regression diagnostics, and time series econometrics. This course will help prepare the student to be a successful professional in finance, economics and related fields, providing analytical tools that are highly sought after in the workplace.

Course Syllabus: Enclosed in this proposal.

Justification of the New Course: The course is designed as a preparatory course for accepted students into the MS degree in Applied Economics, and the MS degree in Finance. This course could be taken by undergraduate students or graduate students with a strong background in Agriculture, Business and related fields. This course will be available at a distance and hence will be accessible to students in the MS in Agriculture degree program.

Course Delivery Schedule: The course will be delivered once in each year initially offered during the summer session, beginning in Summer 2016. The development of this course will be done by Dr. Vicki McCracken and will be delivered by Dr. McCracken with the assistance of a PhD student in Economics.

Marketing Plan: The course will be required for all graduate students in the new Master of Science in Finance program who do not have background in Econometrics as an undergraduate. This course will also be available to students in the MS in Agriculture who have an interest in economics and finance. We anticipate a student enrollment number between 10 and 30 in each year, depending on the recruiting outcome for master students and the demand by graduate students outside of the MS in Finance. The course will be advertised both in the university course catalog and through email announcement to interested parties.

Impact on the SES Resource: The development of this course is being done simultaneous with the development of a distance version of another course (EconS 311) and many of the materials can be used for both courses (but taught at different levels). Hence the development of the course has minimal impact on SES resources. The offering of the course will be done initially during the summer and faculty/graduate salaries will be paid out of the revenues generated by the course. Hence the proposed course is resource neutral in terms of SES's service, teaching, research and extension activities. As a result, the new offering does not require redeployment of existing resources.

Funding Model: To the degree that is possible, we plan to teach the course during the summer session and the salaries will be paid out of the revenues generated by the course.

**EconS 536, Applied Statistics and Econometrics for Finance (3 credits)
Fall 2017**

Instructor: Vicki McCracken
Office Hours: T (Tues) 2:45 – 5 pm
Office Address: Hulbert Hall 301A
Office Phone: 335-4728
Email: mccracke@wsu.edu

Teaching Assistants: TBD

Course Website: Blackboard <http://learn.wsu.edu/>

Class Hours and Rooms: T Th, 9:10 – 10:25

Prerequisites: Admission to the MS in Finance Program; or permission of instructor. Recommended preparation: 3-credit introductory course in Statistics, (Equivalent of MgtOp 215), one 3-credit courses in economics (Microeconomics or Macroeconomics), 3-credit course in Mathematics (with calculus), and 3-credit course in introductory Finance.

Textbook (required that you have access to the material in the text):
Econometrics by Example, 2nd Edition by Damodar N. Gujarati, Palgrave Macmillan, 2015, ISBN 978-1-137-37501-88. The Textbook will be available for purchase at The Bookie.

Other Required Materials:

Required materials such as homework assignments, handouts, lecture overheads, and readings will be posted on Blackboard: <http://learn.wsu.edu/>.

Students must have access to STATA, statistical computer program. **STATA 14** is available for purchase at GradPlan pricing (student-pricing) by students enrolled and faculty teaching at Washington State University. Details on semi-annual or annual purchasing by students can be found at <http://www.stata.com/order/new/edu/gradplans/student-pricing/>

Course Description and Goals:

This course will take a data and problem driven approach, giving the student the skills to formulate, estimate, and interpret models that address problems in the area of finance and financial economics. While focused on problem solving, the course will also provide the student with an intuition behind the theoretical concepts. The course will review relevant basic statistics and probability concepts, and apply these to linear regression, regression diagnostics, and time series econometrics.

This course will help prepare the student to be a successful professional in finance, economics and related fields, providing analytical tools that are highly sought after in the workplace. Our overall teaching goals are to help the student build a strong foundation of knowledge in the basic principles of applied econometrics and to help the student develop critical thinking and problem solving skills in applying these quantitative principles in future scenarios.

Grading and Course Requirements:

<i>Grade Components:</i>	Class Participation/Discussions/Quizzes	5%
	Homework Assignments	15%
	Lab Assignments	15%
	Examinations	65%
	[2 midterms (30 and 35%, respectively)]	

Midterm and Final Grading: Guaranteed Grading Scale (pluses and minuses will be used):

A	94 – 100 %	C	73 – 76.9 %
A–	90 - 93.9 %	C–	70 – 72.9 %
B+	87 - 89.9 %	D+	65 – 69.9 %
B	83 - 86.9 %	D	60 – 64.9 %
B–	80 - 82.9 %	F	Less than 60%
C+	77 - 79.9 %		

A curve (in your favor) may be applied at the discretion of your professor.

- **Course Participation/Discussions/Quizzes** - Quizzes/short problems/group work will be given on a routine basis and will be graded. You are expected to keep up with the materials as the class progresses and actively participate in class discussions
- **Homework Assignments** - There will be 10 homework assignments throughout the term. NO homework assignments are dropped; you need to do all assignments. These consist of a mix of analytical problems (some will be from your textbook) and computer work. We will use EXCEL and the software package STATA, and you will generally be expected to use these (as assigned) for your computer work in your assignments. The assignments will be posted on the Blackboard site <http://learn.wsu.edu/> in the Homework Assignments folder and completed assignments will be placed into the associated drop box. Late assignments will be penalized at a rate of 20% per day that the assignment is late. After an assignment answer key is posted on the Blackboard, late assignments will no longer be accepted. You may work with your classmates for the homework assignments, but you are required to write up your own answers for the assignment. VIOLATION OF THIS IS PLAGIARISM AND WILL BE DEALT WITH ACCORDINGLY.
- **Lab Assignments** – There will be 14 lab assignments throughout the term with a 48 hour turnaround time for completion. The assignments will be posted on the Blackboard site <http://learn.wsu.edu/> in the Lab Assignments folder and completed assignments will be placed into the associated drop box Your lowest lab assignment grade, not including the last lab (which is worth double points), will be dropped. In the labs you will be using relevant techniques to analyze data and estimate econometric models (utilizing the software package STATA and EXCEL).
- **Examinations** - There will be a midterm exam at approximately 7 weeks into the semester and a final exam (at the scheduled time by the university).

Student Learning Outcomes and Assessment: The following table summarizes the major learning outcomes and assessment methods.

At the end of this course, students should be able to:	The following will address this outcome:	This outcome will be evaluated primarily by:
Apply basic finance and economic concepts to identify researchable economic issues	Lectures and assigned readings	Written responses in homework and lab assignments, quizzes, and exams
Collect, organize, evaluate, and analyze appropriate finance and economic information/data	Lectures, assigned readings, and homework and lab assignments	Written responses in homework and lab assignments, quizzes, and exams
Specify and test finance and economic hypotheses	Lectures, assigned readings, and homework and lab assignments	Written responses in homework and lab assignments, quizzes, and exams
Utilize quantitative skills to estimate models with results that can be used for management decisions or policy recommendations	Lectures, and homework and lab assignments	Written responses in homework and lab assignments, quizzes, and exams

Class Expectations and Policies:

Be a positive contributing member of the class. Students are expected to participate in a manner that will facilitate learning as well as the learning of classmates. Mutual respect and collaborative effort are essential and will be expected at all times. Changes in classroom policies, such as changes in due dates for assignments or corrections to assignments will be announced in class and on Blackboard. Other announcements will be made on Blackboard, and hence students should check the system on a routine basis.

Academic Integrity:

As an institution of higher education, Washington State University is committed to principles of truth and academic honesty. All members of the University community share the responsibility for maintaining and supporting these principles. When a student enrolls in Washington State University, the student assumes an obligation to pursue academic endeavors in a manner consistent with the standards of academic integrity adopted by the University. To maintain the academic integrity of the community, the University cannot tolerate acts of academic dishonesty including any forms of cheating, plagiarism, or fabrication. Washington State University reserves the right and the power to discipline or to exclude students who engage in academic dishonesty. The following Web site can provide you with the needed resources to be successful and to avoid violating WSU's Standards of Conduct for Students regarding academic integrity.

<http://academicintegrity.wsu.edu/students/>. Also useful is the WSU Information Plagiarism website www.wsulibs.wsu.edu/plagiarism/main.html.

You are expected to uphold the WSU standard of conduct related to academic integrity. The guiding principle of academic integrity is that your submitted work, examinations, reports, and projects must be your own work. Plagiarism or cheating of any nature will not be tolerated. Any student caught cheating will be given an F as a final grade in this course and will be referred to the Office of Student Standards and Accountability. If you are unclear about what constitutes academic dishonesty, please see me or the Office of Student Standards and Accountability (335-4532).

Students with Disabilities:

Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please visit the Access Center to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center. Location: Washington Building 217; Phone: 509-335-3417. For information about the Access Center, see their website at <http://drc.wsu.edu>.

Other Resources: WSU has many resources that are designed to help you be successful as a student. Some helpful campus resources include:

Library Services: The Holland and Terrell Libraries contain many resources for WSU students and faculty interested in Economic Sciences, many of which can be accessed through their website <http://libguides.wsulibs.wsu.edu/economics>. This includes links to data sources that might be useful in your class project. If you have any questions not answered by their website or would like to request a book or journal on any subject related to Economic Sciences, please contact Mary Gilles at gilles@wsu.edu (Office: Terrell 120E, Phone: 335-8740).

Safety Statement: Washington State University is committed to maintaining a safe environment for its faculty, staff, and students. Safety is the responsibility of every member of the campus community and individuals should know the appropriate actions to take when an emergency arises. In support of our commitment to the safety of the campus community the University has developed a Campus Safety Plan, <http://safetyplan.wsu.edu>. It is highly recommended that you visit this web site as well as the University emergency management web site at <http://oem.wsu.edu/Emergencies.html> and become familiar with the information provided.

Weekly Course Syllabus

Week	Topic	Readings*	Lab	HW
1	Intro/Course overview/Review	Syllabus, App 2, CN-1	Lab 1: Data Management and Basic Statistics in Excel	
2	Review - Probability and Distributions	Ch App 2, CN-1 and CN-2	Lab 2: Intro to STATA	HW #1
3	Review - Estimation and Hypo Tests	Ch App 2, CN-3	Lab 4: Hypothesis Testing	HW #2
4	Data - Collection and Measurement	Ch 1 (1.2 only), CN-4 and CN-5 (1st section)	Lab 3: Data collection and Organization	HW #3
5	Simple Regression - Estimation	Ch 1	Lab 5: Linear regression in Excel and STATA	HW #4
6	Simple Regression - Assessing Fit and Examples	Ch 1	Lab 6: Data management and basic regression techniques in STATA	HW #5
7	Exam and Multiple Regression	Ch 2	Lab 7: Individual project data summary and analysis	
8	Multiple Regression/ Functional Form	Ch 2	Lab 8: Functional form selection (using own data)	HW #6
9	Dummy Variables/Model Selection	Ch 3 and CN-6	Lab 9: Dummies/Alternative Model Comparison (F test)	HW #7
10	Model selection/ Multicollinearity	Ch 4 and 7, CN-7	Lab 10: Multicollinearity	
11	Heteroscedasticiy	Ch 5 and CN- 8	Lab 11: Heteroscedasticity	HW #8
12	Autocorrelation	Ch 6 and CN- 9	Lab 12: Autocorrelation	HW #9
13	Economic Forecasting and other models	Ch 16 CN-10	Lab 13: Time Series	
Thanksgiving				

14	Time Series Econometrics	Ch 13	Lab 14: Semester Summary (Lab quiz - double)	HW #10
15	Time Series Econometrics	CN- 14 and 15	Open Lab- Project work	
Finals Week	Final Exam			

*Readings – Text Chapter (Ch) and Appendix (App); Class notes (CN) - #.