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: Spring 2017 (term/year) Course Typically Offered: Spring

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**

course subject/crosslist	course no.	title
EconS	522	Financial and Commodity Derivatives

Credit hrs	lecture hrs per week	lab or studio hrs per week	prerequisite
3	3	0	Admission to MS in Finance program; or permission of instructor

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: Randy Fortenbery

9/24/15 9/24/15

Chair/date **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.**

WASHINGTON STATE UNIVERSITY
School of Economic Sciences

MEMORANDUM

DATE: **September 25, 2015**

TO: **Dr. Kim Kidwell**

FROM: **Dr. Felix Munoz**

SUBJECT: **New Course Request for MS in Finance program**

Proposed Course Title: Financial and Commodity Derivatives, EconS 522

Course Description: This course focuses on the design, trading, structure, and pricing of derivatives. Derivatives differ from other financial securities in that their value is determined by the value of other assets. Derivatives include futures contracts, forward contracts, options, and swaps. The objective is for the student to develop a working knowledge of how derivative securities work, how they are used, and how they are priced. This has become an increasingly important part of the knowledge base required by both money management firms, and firms devoted to in-house financial risk management.

Course Syllabus: Enclosed in this proposal.

Justification of the New Course: Commodity markets trade agricultural products such as wheat, coffee, cocoa and sugar, and mined products such as gold and oil. The study of commodity derivatives, which include future contracts, forward contracts, options, and swaps, provides students with direct applications to contracts on agricultural and mining products, an essential ingredient for continuing the academic excellence of SES's graduate education as part of CAHNRS. In addition, derivative markets attract many international students, thus aligning well with the international outreach plan of CAHNRS and WSU.

Course Delivery Schedule: The course will be delivered once in each academic year in the spring semester, to begin Spring 2017. The instructor for this course will be drawn from SES's faculty members. The course will be delivered by Dr. Randy Fortenbery, who has taught the course already at another research university and hence the course development time will be minimal.

Marketing Plan: The course will be required for all graduate students in the new Master of Science in Finance program. We anticipate a student enrollment number between 10 and 30 in each year, depending on the recruiting outcome for master students. The course will be advertised both in the university course catalog and through email announcement to interested parties.

101 Hulbert Hall, PO Box 646210, Pullman, WA 99164-6210 USA
509-335-5556 • Fax: 509-335-1173 • econs@wsu.edu • www.ses.wsu.edu

Impact on the SES Resource: The proposed course is an additional course for the professor to teach, but is a priority area for continuing the academic excellence of SES's graduate (and undergraduate) education. This will require a realignment of existing resources, but not require new resources.

Funding Model: To the degree possible, we plan to use faculty on permanent budget in teaching the course.

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WASHINGTON STATE UNIVERSITY

ECONS 522: FINANCIAL AND COMMODITY DERIVATIVES

Spring 2017 – 3 credits
Class time: TuTh 10:35-11:50 a.m.
Location: TBD

Instructor:	Dr. Randy Fortenbery	Office:	Hulbert 203G
E-mail:	r.fortenbery@wsu.edu	Phone:	(509)-335-7637
Instructor Office Hours:	TBA	Fax:	(509)-335-1173
Teaching Assistants:	TBA	Office:	TBA
E-mail:	TBA		
TA Office Hours:	TBA		

Course Description
This course focuses on the design, trading, structure, and pricing of derivatives. Derivatives differ from other financial securities in that their value is determined by the value of other assets. Derivatives include futures contracts, forward contracts, options, and swaps.

The objective is for the student to develop a working knowledge of how derivative securities work, how they are used, and how they are priced. This has become an increasingly important part of the knowledge base required by both money management firms, and firms devoted to in-house financial risk management.

Recommended Preparation
Admission to the MS Finance program, or permission of instructor. Recommended preparation: two calculus courses, and a course in statistics, econometrics, and introductory finance.

Student Learning Outcomes and Assessment:

Learning Goal	At the end of this course, students should be able to:	The following will address this outcome:	This outcome will be evaluated primarily by:
LG 1, 2 & 7	Demonstrate a working knowledge of the role and use of derivatives in price discovery and market risk management.	Lectures and assigned readings	Written responses in assignments, and exams.
LG 1 & 2	Analyze option pricing models to determine fair market price, and evaluate the impact of volatility on option premiums.	Assignments, lectures, and discussion sections	Written responses in assignments, and exams.

Required Textbook (and Course Materials, available in Bookie):

The textbook is *Fundamentals of Futures and Options Markets, 8th Edition,* by John C. Hull. Students may purchase the optional Solutions Manual and Study Guide for this text.

Course website:
All lectures, homework, and other related course materials will be available on the class space in Blackboard.

Friday Discussion Sections and Teaching Assistant:
The teaching assistant for this course is (TBA). His email is TBA, and his office hours and location will be determined the first week of classes.

Grading:

Exams – 70% of the course grade. Each exam is 35% of the course grade.

There will be two in-class exams. The first will be the first class of week 7 and include material covered through week 6. The second will be on the last class of week 15, and cover material from week 7 through week 15.

Both exams will be closed book and closed notes. Students will be allowed pencils, erasers, pens and calculators only. NO CELL PHONES for calculators.

Make-up examinations will be available to those students with excused absences only. In these cases, the instructor must know of the intended absence for an examination three days prior to the examination date so a substitute examination can be written and the date for the examination established. Those students who miss an examination due to an unexcused absence will receive a score of zero ("0") for that examination.

Exams will be weighted equally.

Homework – 30% of the course grade.
There will be 4 homework assignments. They will be assigned in weeks 4, 5, 9, and 13. Assignments must be received by 5:00pm on the day due. NO HOMEWORKS WILL BE ACCEPTED LATE.

The final course grade will be determined by the following scale:

- 95-100% A
- 90-94.9% A-
- 85-89.9% B+
- 80-84.9% B
- 75-79.9% B-
- 70-74.9% C+
- 65-69.9% C

- 60-64.9% C-
- Below 60% F

Exam Policies:

- All exams will be closed book and closed notes. Student may only bring pens, pencils, erasers, and a calculator.
- Exam content will be based on assigned problems and examples in the class handouts.
- Students will be provided with a list of useful formulas. Students may not make own list.
- If caught cheating on an exam, student will receive a score of zero for the exam.
- The exams ***must*** be taken at scheduled times, unless student has a ***verifiable*** family or medical ***emergency***.
- All requests to have an exam re-graded must be submitted to instructor in writing within one week after exams are handed back to student. At that point, instructor will re-grade the entire exam.

Homework Assignments:

Four problem sets will be assigned. Students may work on the assignments with a partner. Groups larger than two people are not permitted. If working with another student, please submit only one copy of your solutions, with both students' names appearing at the top. Homework should not be done in consultation with students who are not members of your group.

Problem sets are due by 5:00 p.m. on the due date. If student does not hand in during class, student should place assignment under door of Hulbert Hall office or in instructor's mailbox on the first floor of Hulbert Hall. No late problem sets will be accepted.

Attendance and Class Participation:

Students are expected to attend all class meetings. Note that should you miss class you are still responsible for learning the material covered in all class meetings, and your assignments are due on the announced dates. You are expected to observe the following:

- Come to class on time and stay the entire duration.
- Please turn off mobile phones during the duration of the class. If some emergency requires cell phone be on, let instructor know before the class begins.
- Ask questions as needed.
- Participate actively in class lectures and discussions. Instructor will systematically cold call on groups and individuals; so read the assigned material before class.
- Please prepare a legible name card and put it up in front of you during every lecture.

Course Outline:

Date	Topic	Read	Assignment
Week 1	Introduction	Ch. 1	
	Mechanics of Futures Markets	Ch. 2	
Week 2	Hedging with Futures	Ch. 3	
	Hedging with Futures	Ch. 3	
Week 3	Interest Rates and Bonds	Ch. 4	Homework 1
	Interest Rates and Bonds	Ch. 5	
	DISCUSSION SECTION MEETS		
Week 4	Pricing Futures	Ch. 5	Hmk #1 Due
	Pricing Futures	Ch. 6	
Week 5	Interest Rate Futures	Ch. 6	
	Interest Rate Futures	Ch. 7	Homework 2
Week 6	Swaps	Ch. 7	
	Review		Hmk #2 Due
	DISCUSSION SECTION MEETS		
First Class Week 7	EXAM		
Second Class Week 7	Swaps	Ch. 7	
Week 8	Options Market	Ch. 8	
	Properties of Options and Options Strategies	Ch. 9	
Week 9	Options Strategies	Ch. 10	
	Case study on risk management		Homework 3
	DISCUSSION SECTION MEETS		
Week 10	Binomial Trees	Ch.11	
	Binomial Trees	Ch.11	Hmk #3 Due
Week 11	The Black-Scholes Model	Ch. 12	
	Options on Indices and Currencies	Ch. 13	
Week 12	Futures Options	Ch. 14	
	The Greek Letters	Ch. 15	
Week 13	The Greek Letters	Ch. 15	
	Open Lecture (to be determined based on cur events)		Homework 4
Week 14	Value at Risk	Ch. 18	
	Open Lecture (to be determined based on cur events)		
	DISCUSSION SECTION MEETS		
Week 15	Review		Hmk#4 Due
Finals Week	Exam		

• **WSU Reasonable Accommodation:**
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 either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations MUST be approved through the Access Center. For more information contact a Disability Specialist on your home campus:

Pullman or WSU Online: 509-335-3417
http://accesscenter.wsu.edu, Access.Center@wsu.edu

• **WSU Academic Honesty:**
Academic integrity will be strongly enforced in this course. Any student caught cheating on the exam will be given an F grade for the course and will be reported to the Office Student Standards and Accountability. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that you read and understand these definitions.

• **WSU Safety and Emergency Notification:**
Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors. It is highly recommended that you review the Campus Safety Plan (http://safetyplan.wsu.edu/) and visit the Office of Emergency Management web site (http://oem.wsu.edu/) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.

The schedule and procedures outlined in this syllabus are subject to change in the event of circumstances beyond the instructor's control or in response to ongoing assessment of learning.