Minnesota State University, Mankato

Curriculum Proposal

Please type or select the requested information. Print completed forms, add appropriate paper attachments, and route through MSU's curricular process for recommendations and decisions.

| College: Social and Behavioral Sciences | Proposal #: 91 |
| Department: Economics | Effective Date of Change: |
| Program: CIP | Academic Year: 06-07 |

Type of Change: COURSE PROPOSALS

Proposed:

Title Current: |

Title Proposed: Applied Econometrics of Financial Markets

24-Char. Abbrev: |

Course Designator: Econ 463/563

Number of Credits: 3

(If applicable)

Include a course or program description for the Bulletin (30-40 words maximum for courses, 100 for programs):

This course is designed to cover basic tools in time series analysis and to equip students with quantitative skills to analyze the financial market.

Rationale or Justification for change:

***For General Education or Cultural Diversity Courses Only***

<table>
<thead>
<tr>
<th>GE Category #</th>
<th>GE Category Name (Maximum of 3 Categories)</th>
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<tbody>
<tr>
<td>N/A</td>
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* For Writing Intensive Courses, attach a description of the kind and quantity of writing.

* For Upper Division Courses, include a description of the respects in which it is broad and general rather than narrow and specific, and so suitable as GE.

Attach paper copies of the following:

a. Syllabus or course outline.

b. Course's student learning outcomes associated with each GE competency or CD designation.

c. List of strategies to be used to assess students' achievement of each GE competency or CD designation.

***For New Courses***

<table>
<thead>
<tr>
<th>Instructional Type: Lecture</th>
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<tr>
<td>Course will be offered:</td>
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<tr>
<td>Fall Semester</td>
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<td>Spring Semester</td>
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<td>Summer Session</td>
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<table>
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<tr>
<th>Grading Format: Grade P/N</th>
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<tr>
<td>Econ 207</td>
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<tr>
<th>Other courses are being changed or eliminated. (Explain.)</th>
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Course content or title is similar to courses in other departments. (Attach copy of letter of agreement with other program(s) contacted. Indicate the nature of the discussions and/or resolution of differences or potential conflicts.)

Attach paper copies of the following:

a. Syllabus or course outline.

b. Course's student learning outcomes.

c. A list of resources required to offer and support this course.

d. A description of how teaching this course will affect department staffing.

e. If 400/500 level course, an explanation of added expectations of graduate students.
**For Program Proposals**

Attach paper copies of the following:

a. Student learning outcomes for the program.
b. Minutes from department and college curriculum meetings in which action was taken on this proposal.
c. Program Assessment Plan. Forms are available on the Academic Affairs Web site:
   http://www.mnsu.edu/acadaf/prae/forms/
d. List of program requirements for **New** programs, or a list of **Current** and **Proposed** program requirements for **Redesigned** programs.
e. A list of resources required to offer and support this program.
f. A description of how offering this program will affect department staffing.
g. A list of additional library holdings required for this program.

Please include rationale for any proposed changes in number of program credits.

**For Programs Requiring MnSCU Approval**

If any of the following changes are proposed, please fill out and attach MnSCU Program Approval Forms, which are available on the Academic Affairs Web site:

http://www.mnsu.edu/acadaf/Curriculum/currformsprocess.html

1. Creation of an entirely new program.
2. Redesign of existing programs, which takes any of the following forms:
   + Addition or deletion of a program option. Options are part of program design in which 30-50% of the courses are required as part of a common core for all students, and which offers curriculum alternatives greater than 30% of the total number of credits in the major. Options are appropriate to baccalaureate or masters programs.
   + Addition or deletion of a program emphasis. Emphases are part of program design in which more than 50% of the courses are required as part of a common core for all students, and which offers curriculum alternatives with a minimum of nine credits. Emphases are appropriate to associate and baccalaureate programs.
   + Change in program name.
   + Change in program CIP #.
   + Change in TOTAL program credits.
   + Change in degree award. For example, changing a B.A. to B.S.
   + Creation of a new degree award in a related academic area. Examples include creation of a certificate program from an existing degree program, or a new degree program from an existing degree program (e.g., Art History BA from Art BA.)
3. Relocation of an existing program. This is a proposal to move an existing program from one site to be exclusively offered at another site, and requires closing the program offered at the original site. For example, a program offered both on-campus and through extended campus is to be offered only at the extended campus site.
4. Replication of an existing program. This is a proposal to offer an existing program at a new site, which may be an existing MnSCU-approved site, or another campus of the same institution. Replicated programs are offered at both the original site and the new location.
5. Suspension or reinstatement of a program. This proposal suspends admission of students into an existing program, and is good for three years. Reinstatement proposals request the reopening of student admissions into a given program.
6. Closure of a program. This proposal requests closure of an existing program and its official inventory of academic programs. Unless a department seeks to re-open a suspended program, it should be closed within three years of suspension.
# Curriculum Proposal

## Department

**Recommended**: (Category/ies ________)

**Not Recommended**: (Category/ies ________)

**Comments**: The department feels this course will strengthen financial economics specialization.

**Department Chair**: 10/16/06

**College Curriculum Committee**

**Not Recommended**: (Category/ies ________)

**Committee Chair**: 11/4/06

**College Dean**

**Recommended**: (Category/ies ________)

**Not Recommended**: (Category/ies ________)

**Dean**: 11/6/06

**General Education Subcommittee**

**Recommended**: (Category/ies ________)

**Not Recommended**: (Category/ies ________)

**General Education Subcommittee Chair**: Date

**Undergraduate Curriculum and Academic Policy Committee**

**Recommended**: (Category/ies ________)

**Not Recommended**: (Category/ies ________)

**UCAP Faculty Chair**: 3/1/07

**Faculty Association Graduate Committee**

**Recommended**: (Category/ies ________)

**Not Recommended**: (Category/ies ________)

**Faculty Association Graduate Chair**: Date

**Graduate Dean**

**Recommended**: (Category/ies ________)

**Not Recommended**: (Category/ies ________)

**Graduate Dean**: Date

**Academic Affairs Council**

**Recommended**: (Category/ies ________)

**Not Recommended**: (Category/ies ________)

**Assistant Vice President**: 3/12/07

**Senior Vice President and Vice President for Academic Affairs**

**Approved**: (Category/ies ________)

**Not Approved**: (Category/ies ________)

**Sr. Vice President & Vice Pres. Academic Affairs**: 3/13/07

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Revised September 2002
Practical Econometrics of Financial Markets

Course Description:

This course is designed to cover basic tools in time series analysis and to equip students with quantitative skill to analyze the financial market. For each topic, we will start with the econometrics models and then explore their application in asset pricing issues. Students are expected to have taken Econometrics (Econ462/562). Eviews programming skill will be required for homework assignment.

Office Hour/Homework/Grading:

Readings and Notes:

There are three recommended textbooks for the course:


I will post sketchy notes on the course web page after each lecture, but it is not a substitute for lecture attendance and taking your own notes during the class. I will also post optional readings (mostly research papers on the relevant topics) from time to time.

Course Outline:

1. Introduction: Summary statistics about final markets
2. Linear regression, estimation and hypothesis testing Capital asset pricing model and multifactor model
3. Stationary autoregressive and moving average processes Impulse-response function estimation
4. Unit root processes and random walk test Market efficiency and predictability of stock returns
5. Spectral analysis in the frequency domain Business cycles and use of filters
6. High frequency data analysis Market microstructure: nonsynchronous trading, information dissipation, and lead-lag effect
7. Volatility estimation and prediction Systematic and idiosyncratic risk
Course student learning outcomes:

1. Upon completion of the 463/563 course, the student will perform the necessary steps on time series analysis to analyze the financial market.

2. The students will be able to exhibit technical competence in visual awareness by demonstrating commitment, presentation skills, creativity and technical competence.

3. The students will acquire a broad range of foundational knowledge and appreciation in financial markets.

4. The students will investigate and realize a historical trend of financial market and attempt to forecast the future trends and movements of financial markets.

5. The students will incrementally increase their working knowledge and appreciation with a prescribed level of sophistication in time series analysis, technology, and equipment.

List of resources required to offer and support this course:

1. Computer Lab

2. Time series analysis software, Eviews

3. Recommended Texts

Department staffing description:

Practical Econometrics of Financial Markets will be a class that will be offered as an elective to any student who has successfully completed Econometrics. The class will be offered in every Fall semester of each academic year. This will necessitate 1 departmental class (such as Econ 207 – Business Statistics or Econ 201 – Principles of Microeconomics) be taught by another member of the faculty. The department have 12 full-time faculty members now and plan to hire one more faculty in 2006-7 academic year so this staffing will not be a problem.

Graduate student requirements

Each graduate student is required to write his/her own research paper and to present the findings of the research to the class. The quality of research performed by each graduate student and the quality of the writing of the paper should be commensurate with that expected of graduate students. Consequently, graduate student research papers will be evaluated on a higher standard than undergraduate research papers.
From: Wilcox, Stephen E  
Sent: Friday, September 22, 2006 12:10 PM  
To: Park, Kwang Woo  
Subject: RE:

Ken,

The Department of Finance does not oppose the ECON Department offering a topics course in the econometrics of financial markets and is actually quite supportive of your efforts. If the course is approved, we want to evaluate the topic coverage further and we (eventually) might consider listing it as an elective for some of our tracks/areas of emphasis. Please let us know if ECON does decide to offer this course.

All the best,

Steve

Stephen E. Wilcox, Ph.D., CFA  
Professor of Finance and Department Chair  
Mail: 150 Morris Hall  
Minnesota State University, Mankato  
Mankato, MN 56001  
Phone: 507-389-5344  
Fax: 507-389-5497  
E-mail: stephen.wilcox@mnsu.edu
1) Add Ken Park to Committee
   Motion: Phil/Mike to add Ken to Committee. Passes unanimously.

Richard asks that we talk about the direction of the program. Some discussion on direction of the program. Richard mentioned that we want to think about who we hire next year and not do things on a haphazard basis on adding and deleting courses. Phil said that IO course is standard in other programs across the country. Ken said that we want to have availability of upper level courses; we want some market power to attract majors. It was mentioned that Ken has the blessing of the Finance Department for his class. Mike said that jobs economics majors take need quantitative skills. Bill said that we want to advertise what we are teaching. Some pressure to get the new courses approved for the fall deadline in the catalog. Committee agrees to have further motions approved by email.

2) Add Bill Brennan’s Industrial Organization to Economics Course Catalog for Fall 2007

Richard said that there should be more 300 classes. Bill said that he doesn’t have any problem teaching class at 300 level. Intermediate micro is dropped as a requirement for the class. Richard said course requirement on 307 needs to be changed to 207. Richard leaves for 10A class.

Phil/Mike Motion: Add Bill’s IO class (Eco 372) to fall catalog 2007 with prerequisites for Class: Eco 207 Statistics, Eco 202 Intro Micro, and Eco 201 Intro Macro. Committee will vote by email. Motion passes by email 10-0-0.

3) Add Ken Park’s Practical Econometrics of Financial Markets Class to Economics Course Catalog for Fall 2007

Motion: Phil/Mike: Keep class as is on 400 level and keep prerequisites for class at econometrics, and statistics. Committee will vote by email.

Discussion: Class could attract some graduate students and finance majors. Dick asked in his email will this course have math econ (new 301) as a prerequisite? Dick asked if we could remove the word "Practical" from the course name. Dick asked why the course has prerequisites of 355 and 356? Ken said by email that we should have 207 only. Dick asks shouldn’t we require EC 305 Money and Banking and Finance 362 as well? Dick says that the more prerequisites, the lower the potential enrollment.

Motion Passes by email: 8-1-1.

4) Math for Economists

Current class is Eco 410 Quantitative Analysis in Economics. Consensus is to drop class and add 300 level class. Ken said we should advertise to business department on class. Some discussion on what to call the class. Some discussion on text: Chiang
might be too hard for students. Mike said he teach class one semester. Bill said that he could teach class in other semester. Dick said he would like to discuss keeping EC 445 in the list of required courses. Dick asked should this course be a prerequisite for EC 355 and EC 356 or for all our upper level courses or for any upper-level courses. Dick said that unless we require it for upper-level courses, I think a number of students will postpone taking this course until late in their academic career when its benefits will be minimal in their remaining courses.

Motion: Mike/Phil: Change course 410 to Eco 301 in Fall Semester 2007 Catalog. Replace Eco 445 as requirement for major. Change title to “Quantitative Methods in Economics”. Under Course Description second sentence should read: “Topics include optimization methods, comparative statics, and linear algebra.” Prerequisites include 201, 202, and 207 only. Committee will vote by email. Motion Passes by email 8 – 1 – 1.

5) Cleaning up course catalog:

Don said by email we will be hiring this year, might the new faculty member want to teach one of those courses? Don also said dropping a course is usually easier than adding one. Don also raised the point by email that changing our major by dropping a required course changes the number of hours in our major. Don advised that probably the economics department should have a certain number of hours and not deviate too far, from the college norm.

Eco 404 Economics of Human Resources
Motion: Mike/Phil to drop class from catalog. Committee will vote by email. Email vote is 9 – 1 – 0 to accept motion.

Eco 425: Social Control of Economic Activity
Motion: Phil/Mike to drop class from catalog. Committee will vote by email. Email vote is 9-1-0 to accept motion.

Eco 445: Survey of Economic Ideas
Motion: Mike/Phil to keep class in catalog but drop requirement for major. Committee will vote by email. Email vote is 8-2-0 to accept motion.

Don asked would we want to replace 445 in our major with another course? Don also said if we don't hire someone to teach it, do we drop it totally. Dick said the name should be changed to "The History of Economic Thought", which "is what is called everywhere else in the civilized world."

Eco 471 Economics, Ethics, and Society
Motion: Mike/Phil to drop class from catalog. Committee will vote by email. Email vote is 9 – 1 – 0 to accept motion.

Committee Agrees to table items 7 How do we increase majors and 8 Other items to another meeting. Business foundations requirement for BS (Item 9) also to be included in next meeting. Discussion to make Applied Microeconomics Concentration to include Labor, Sports Econ, Natural Resources, IO.

7) How do we increase majors?
   – Advertise in 201/2 Classes?
- Fliers?
- Brochures?
- Target individual students?
- Undergraduate economics advertising meeting with cake and cookies?
- Alumni survey?

8) Other Items?
- Program Assessment Report (may need another meeting)
- Master's Program (may need another meeting)

Meeting adjourned 10:30A.
Economics Curriculum Committee Meeting 12:30P 10/12/06:

Here: Bill Brennan, Mike Spencer, Phil Miller, Richard Schiming, Ken Park, Shawn Osell, Atrayee Gosh Roy, Khan Saleen, Donald Renner

There: Vinnie Choe (had class)

1) Math for Economics prerequisite for Eco 355 and Eco 356. Dick raised the question of numbers in the department for quality of students. Should class be counted for everyone only BS students. After discussion all agree on class being for all majors. Mike suggested book to be used is Matrix for Economists and Business Students. Dick: do we have course for 355 and 356? Khan said some of his intermediate students have trouble with symbols. Mike said that course is even good for econometrics in reading slopes. Students should know what a partial derivative is. Phil said this course would be good for developing thinkers. Dick said course needs economic applications. Dick asked about a course proposal. Bill said he’d write one up for the meeting tomorrow. Atrayee said that Solow Models show up in International Trade. Dick wants Math 112 or equivalent added as a prerequisite. All agree. Mike raised the question of those with a double major in Math/Econ. Dick said that they can go to the chair to waive permission for course.

Motion: Dick/Shawn (who beats Phil by a hair): Have Prerequisites for Eco 301 be Eco 201, Eco 202, Eco 207, and Math 112 or the equivalent. Passes 9 – 0 – 0.

Motion: Dick/ Mike: Have Eco 301 as an additional prerequisite for Eco 355 and Eco 356. Passes 9 – 0 – 0.

2) Business Foundations Requirement for B.S. in Economics.

Phil: Drop business courses as a requirement for B.S. and pick up a minor in business. Some of his students have complained that the business classes requirements hurt their desire for a BS in Economics. Dick: this has been done in the past for a marketing angle. Phil: there is a problem of students getting into business classes. Phil: minor in business more marketable than current system; also minors in business improve status of getting into classes. Some discussion on what the difference between the BS and BA in economics. Dick: BA requires language requirement. Time constraint of meeting becoming important. Committee agrees to table issue for later meeting; proposal will not meet catalog.

2a) Eco 445
Motion: Dick/Phil Change title in Eco 445 to History of Economic Thought. Passes Unanimous 9 – 0 -0.

Committee agrees to table items 3-5 with small discussion on item 4.

3) Revising course concentrations in economics.

4) How do we increase majors?
   - Advertise in 201/2 Classes?
   - Fliers?
   - Brochures?
   - Target individual students?

Dick said that this has been effective – has seen students say that they were invited to become economics major in senior seminar class. Said that Phil’s name
has come up a couple of times for students saying who influenced them to become an economics major.

- Undergraduate economics advertising meeting with cake and cookies?
- Alumni survey?

5) Other Items?
   a. Program Assessment Report (may need another meeting)
   b. Master's Program (may need another meeting)

Meeting Ended at 1:30P.
Department of Economics
October 13, 2006
12:30 p.m.
MH 215
Minutes


#1 The following decisions were made:

- Dick Schiming proposed and Atryee Ghosh Roy seconded the motion that the following courses be dropped from the catalog: Economics 4/504, Economics of Human Resources; Economics 4/525, Social Control of Economic Activity; and Econ. 4/571, Economics, Ethics, and Society. The motion was carried unanimously.

- Dick Schiming proposed and Shawn Osell seconded the motion that Econ. 4/545, Survey of Economic Ideas, be renamed Econ. 4/545, History of Economic Thought. The motion was carried unanimously.

- Dick Schiming proposed and William Brennan seconded the motion that the renamed Econ. 4/545, History of Economic thought, be dropped as a requirement for the BA & BS degree in Economics. The motion was carried unanimously.

- Dick Schiming proposed and Michael Spencer seconded the motion that a new course, Econ. 372(3): Industrial Organization be added to the catalog. The motion was carried unanimously.

- Dick Schiming proposed and Michael Spencer seconded the motion that new course, Econ. 4/563(3): Applied Econometrics for Financial Markets, be added to the catalog. The motion was carried unanimously.

- Dick Schiming proposed and Michael Spencer seconded the motion that a new course, Econ. 301(3): Quantitative methods for Economics, be introduced as a required course for BA & BS degree. The motion was carried unanimously.

- Dick Schiming proposed and Michael Spencer seconded that motion that Econ. 301, Quantitative Methods be required as a prerequisite for Econ. 355 and Econ. 356. The motion was carried unanimously.

- Dick Schiming proposed and William Brennan seconded the motion that Econ. 4/510, Quantitative Analysis in Economics, be dropped from the catalog. The motion was carried unanimously.
#2. The matter of scheduling more of our upper level courses in the prime time was taken up for discussion. No decisions were made.

#3 The task of updating the Major Facts Sheets was assigned to the Curriculum Committee. They will give their feedback to the department in three weeks or sooner.