CGS Agenda Item: 08-28
Proposal Effective Date: Spring 2010

Eastern Illinois University

NEW COURSE PROPOSAL

Please check one: ☒ New course ☐ Revised course

PART I: CATALOG DESCRIPTION

1. **Course prefix and number, such as ART 1000:** ECN 5433
2. **Title (may not exceed 30 characters, including spaces):** Applied Econometrics
3. **Long title, if any (may not exceed 100 characters, including spaces):**
4. **Class hours per week, lab hours per week, and credit [e.g., (3-0-3)]:** 3-0-3
5. **Term(s) to be offered:** ☐ Fall ☒ Spring ☐ Summer ☐ On demand
6. **Initial term of offering:** ☐ Fall ☒ Spring ☐ Summer **Year:** 2010
7. **Course description (not to exceed four lines):** This course is the second phase of the econometric sequence. It focuses on applying feasible and valid empirical techniques to economic problems. Students will gain hands-on experience formulating and estimating models, making forecasts and interpreting results.
8. **Registration restrictions:**
   a. **Identify any equivalent courses** (e.g., cross-listed course, non-honors version of an honors course).
   b. **Prerequisite(s),** including required test scores, courses, grades in courses, and technical skills. Indicate whether any prerequisite course(s) MAY be taken concurrently with the proposed/revised course. ECN4973, or approval by the instructor or department chair.
   c. **Who can waive the prerequisite(s)?**
      ☐ No one ☒ Chair ☒ Instructor ☐ Advisor ☐ Other (Please specify)
   d. **Co-requisites** (course(s) which MUST be taken concurrently with this one): None
   e. **Repeat status:** ☒ Course may not be repeated.
      ☐ Course may be repeated to a maximum of hours or times.
   f. **Degree, college, major(s), level, or class** to which registration in the course is restricted, if any:
   g. **Degree, college, major(s), level, or class** to be excluded from the course, if any:
9. **Special course attributes** [cultural diversity, general education (indicate component), honors, remedial, writing centered or writing intensive]
10. **Grading methods** (check all that apply): ☒ Standard letter ☐ C/NC ☐ Audit ☐ ABC/NC ("Standard letter"—i.e., ABCDF--is assumed to be the default grading method unless the course description indicates otherwise.)

11. Instructional delivery method: ☒ lecture ☐ lab ☐ lecture/lab combined ☐ independent study/research

☐ internship ☐ performance ☐ practicum or clinical ☐ study abroad ☐ other

PART II: ASSURANCE OF STUDENT LEARNING

1. **List the student learning objectives of this course:**
   Students in this course will:
   1. Formulate models that build on existing literature to solve economic problems;
   2. Apply appropriate econometric techniques and methods to understand relationships among variables;
   3. Gain hands-on experience in using statistical programs, such as (but not limited to) SAS;
   4. Understand the power and limitations of econometric analysis; and
   5. Perform and present research by using relevant data and econometric tools.

   a. **If this is a general education course, indicate which objectives are designed to help students achieve one or more of the following goals of general education and university-wide assessment:**
      - **EIU graduates will write and speak effectively.**
      - **EIU graduates will think critically.**
      - **EIU graduates will function as responsible citizens.**

   b. **If this is a graduate-level course, indicate which objectives are designed to help students achieve established goals for learning at the graduate level:**
      - **Depth of content knowledge** Objectives 1, 2 and 3
      - **Effective critical thinking and problem solving** Objectives 1 and 4
      - **Effective oral and written communication** Objective 5
      - **Advanced scholarship through research or creative activity** Objectives 1 through 5

2. **Identify the assignments/activities the instructor will use to determine how well students attained the learning objectives:**

First, in-class lectures and hands-on training in statistical programs will help students achieve objective #1-#4.
Second, homework assignments will help students deepen understanding objectives #2 and #3.
Third, midterm and final exams will offer opportunity to examine students' understanding objective #4.
Finally, the quality of research paper and oral presentation will determine the achievement of objective #5.

	Objective 1	Objective 2	Objective 3	Objective 4	Objective 5
In-class lectures/ hands-on training	X	X	X	X	
Homework assignments		X	X		
Midterm and final exams				X	
Research paper					X

Oral presentation					X

3. **Explain how the instructor will determine students' grades for the course:**

Homework assignments	30%
Research paper/presentation	30%
Midterm	20%
Final	20%

4. **For technology-delivered and other nontraditional-delivered courses/sections, address the following:**
   a. **Describe how the format/technology will be used to support and assess students' achievement of the specified learning objectives:**
   b. **Describe how the integrity of student work will be assured:**
   c. **Describe provisions for and requirements of instructor-student and student-student interaction, including the kinds of technologies that will be used to support the interaction (e.g., e-mail, web-based discussions, computer conferences, etc.):**

5. **For courses numbered 4750-4999, specify additional or more stringent requirements for students enrolling for graduate credit. These include:**
   a. **course objectives;**
   b. **projects that require application and analysis of the course content; and**
   c. **separate methods of evaluation for undergraduate and graduate students.**

6. **If applicable, indicate whether this course is writing-active, writing-intensive, or writing-centered, and describe how the course satisfies the criteria for the type of writing course identified. (See Appendix *.)**

PART III: OUTLINE OF THE COURSE

Provide a week-by-week outline of the course's content. Specify units of time (e.g., for a 3-0-3 course, 45 fifty-minute class periods over 15 weeks) for each major topic in the outline. Provide clear and sufficient details about content and procedures so that possible questions of overlap with other courses can be addressed. For technology-delivered or other nontraditional-delivered courses/sections, explain how the course content "units" are sufficiently equivalent to the traditional on-campus semester hour units of time described above.

This course will be 75-minute class periods over 15 weeks. Detailed tentative contents are provided in the following table.

Week	First class of the week	Second class of the week
1	Review of Basic econometric theory, ordinary least squares method	
2	Review of inference, functional forms, dummy variables	
3	Nonlinear models	
4	Probit models	Logit models
5	Tobit models	Tobit models
6	Instrumental variables, 2 stage least square	
7	Simultaneous equation models	

8	Simultaneous equation models / Review	Midterm
9	Panel data analysis	
10	Panel data analysis	
11	Introduction to time series data	
12	Serial correlation, unit root, cointegration	
13	Volatility modeling	
14	Non-parametric analysis	Review
15	Presentation	
16	Final	Final

PART IV: PURPOSE AND NEED

1. **Explain the department's rationale for developing and proposing the course.**
   We have developed this course for three reasons. Most available graduate field courses in the MA program require a research paper. Since the Department has only one course in econometrics that must cover core theory, another course has become necessary to give students a fuller training on the basic tools professional economists use to do empirical work. Students have also expressed the need to learn more of such techniques for better economic analysis. Secondly, this course will be highly valued by employers in public as well as private sectors looking to hire a well-trained economist. Thirdly, students who want to move on to a PhD program will also be able to compete well with those coming in from other programs since applied econometrics has become a popular course at many of our peer institutions. It is for this reason that in our graduate program we are also developing an applied economics track of which this course will be an integral and extremely important part.
   a. **If this is a general education course, you also must indicate the segment of the general education program into which it will be placed, and describe how the course meets the requirements of that segment.**
   b. **If the course or some sections of the course may be technology delivered, explain why.**

2. **Justify the level of the course and any course prerequisites, co-requisites, or registration restrictions.**
   This course will be a second course in econometrics following up on ECN4973: Introduction to Econometrics which is available to graduate and promising undergraduate students. Many of the new methods of applied research to be introduced in the proposed course will build on the basic material covered in ECN4973.

3. **If the course is similar to an existing course or courses, justify its development and offering.**
   a. **If the contents substantially duplicate those of an existing course, the new proposal should be discussed with the appropriate chairpersons, deans, or curriculum committees and their responses noted in the proposal.**
   b. **Cite course(s) to be deleted if the new course is approved. If no deletions are planned, note the exceptional need to be met or the curricular gap to be filled.**

4. **Impact on Program(s):**

   a. **For undergraduate programs, specify whether this course will be required for a major or minor or used as an approved elective.**

b. For graduate programs, specify whether this course will be a core requirement for all candidates in a degree or certificate program or an approved elective.

If the proposed course changes a major, minor, or certificate program in or outside of the department, you must submit a separate proposal requesting that change along with the course proposal. Provide a copy of the existing program in the current catalog with the requested changes noted.

PART V: IMPLEMENTATION

1. **Faculty member(s) to whom the course may be assigned:** This course may be taught by Drs. Hui Li, Mukti Upadhyay, Minh Dao, Noel Brodsky, or any qualified member of the graduate economics faculty.

   If this is a graduate course and the department does not currently offer a graduate program, it must document that it employs faculty qualified to teach graduate courses.

2. **Additional costs to students:** None

   Include those for supplemental packets, hardware/software, or any other additional instructional, technical, or technological requirements. (Course fees must be approved by the President's Council.)
3. **Text and supplementary materials to be used (Include publication dates):**

Tentative Textbooks:

Introductory Econometrics: A Modern Approach (with Economic Applications Online, Econometrics Data Sets with Solutions Manual Web Site Printed Access Card), South-Western College Pub; 4th edition (2008), by Jeffrey Wooldridge.

Introductory Econometrics with Applications, 5th Edition, South-Western College Pub; (2002), by Ramu Ramanathan

PART VI: COMMUNITY COLLEGE TRANSFER

If the proposed course is a 1000- or 2000-level course, state either, "A community college course may be judged equivalent to this course" OR "A community college course will not be judged equivalent to this course." A community college course will not be judged equivalent to a 3000- or 4000-level course but may be accepted as a substitute; however, upper-division credit will not be awarded.

PART VII: APPROVALS

Date approved by the department or school: September 17, 2008

Date approved by the college curriculum committee: October 3, 2008

Date approved by the Honors Council ***(if this is an honors course):***

Date approved by CAA: **CGS:**

*In **writing-active courses**, frequent, brief writing activities and assignments are required. Such activities -- some of which are to be graded – might include five-minute in-class writing assignments, journal keeping, lab reports, essay examinations, short papers, longer papers, or a variety of other writing-to-learn activities of the instructor's invention. Writing assignments and activities in writing-active courses are designed primarily to assist students in mastering course content, secondarily to strengthen students' writing skills. In **writing-intensive courses**, several writing assignments and writing activities are required. These assignments and activities, which are to be spread over the course of the semester, serve the dual purpose of strengthening writing skills and deepening understanding of course content. At least one writing assignment is to be revised by the student after it has been read and commented on by the instructor. In writing-intensive courses, students' writing should constitute no less than 35% of the final course grade. In **writing-centered courses** (English 1001G, English 1002G, and their honors equivalents), students learn the principles and the process of writing in all of its stages, from inception to completion. The quality of students' writing is the principal determinant of the course grade. The minimum writing requirement is 20 pages (5,000 words).