UCONN | COLLEGE OF LIBERAL ARTS AND SCIENCES

COMMITTEE ON CURRICULA AND COURSES

Proposal to Add a New Graduate Course

Last revised: September 24, 2013

1. Date: April 8, 2014
2. Department requesting this course: Public Policy
3. Semester and year in which course will be first offered: Fall 2014

Final Catalog Listing

Assemble this after you have completed the components below. This listing should not contain any information that is not listed below!

PP 5331. Quantitative Methods for Public Administration
3 credits. Seminar.

This course will provide the student with quantitative tools necessary to manage and evaluate public programs.

Items Included in Catalog Listing

Obligatory Items

1. Abbreviation for Department, Program or Subject Area: PP
2. Course Number: 5331
3. Course Title: Quantitative Methods for Public Administration
4. Number of Credits (use digits, "3" not "three"): 3
5. Course Description (second paragraph of catalog entry):
6. Course Type, if appropriate:
   __Lecture __ Laboratory _X_ Seminar __ Practicum

Optional Items

7. Prerequisites: None.
8. Recommended Preparation: None.
9. Consent of Instructor: Not Required.
10. Exclusions: None.
11. Repetition for credit: None.
12. S/U grading: A-F Graded.

Justification

1. Reasons for adding this course:
The Master of Public Administration (MPA) program recently completed a curriculum review. The review affirmed the need for all students to have a substantial treatment in multiple regression analysis. Multiple regression was not emphasized in PP 5376 which was once required for both the M.A. in Survey Research and MPA (both programs are in the Department of Public Policy). PP 5376 remains required by the M.A. in Survey Research but no longer meets MPA needs, requiring the creation of a new course. This new course is part of the MPA core curriculum.

2. Academic merit:
The course is important for students studying in the MPA program as part of their core requirements.

3. Overlapping courses: None
4. Number of students expected: about 20
5. Number and size of sections: 1 section
6. Effects on other departments: Department of Economics and Department of Statistics
7. Staffing: Staffing for the course will be provided by the Department of Public Policy. No new staff is necessary to offer this course.
8. Dates approved by
   Department Curriculum Committee:
   Department Faculty:
9. Name, Phone Number, and e-mail address of principal contact person:

Ken Dautrich
860-570-9090
K.Dautrich@uconn.edu

Syllabus

A syllabus for the new course must be attached to your submission email.

Additional Approval

New graduate courses must also be approved by the Graduate Faculty Council.

COURSE SYLLABUS

University of Connecticut
Department of Public Policy
Quantitative Methods for Public Administration
Fall 2013 | PP 5397 | LB 403
Thursdays 4:00-6:30pm

Instructor: Eric Brunner TA: Diane Diaz Office: Library 404 Office: Library 40X Phone: (203) 582-3489 Email: eric.brunner@uconn.edu
Email: diane.diaz@uconn.edu

Office Hours: T & TH 3:00-4:00. Office Hours: Monday 6:30 – 8:30pm

Course Description:

This course is an introduction to the methods and tools used in applied public policy research. The course begins with a review of fundamental statistical concepts including: probability distribution functions, estimators, sampling distributions, and hypothesis testing. It then turns to estimation and inference in the simple linear regression model and the multivariate regression model. Additional topics include functional form in regression models, dummy variables, and joint hypothesis testing.

Course Materials:

The assigned textbook for the class is: Stock, J. and Watson, M. (2011). Introduction to Econometrics, 3rd Edition, Boston, MA, Addison-Wesley.

Students interested in a slightly less technical text that focuses on the intuition behind regression analysis and its application may also wish to purchase the following text: Kahane, L. (2008). Regression Basics, 2nd Edition, Sage Publications, CA.

In addition to the assigned textbook, a series of lecture notes which follow the material presented in class will be posted on HuskyCT.

The course will require extensive use of STATA, one of the primary statistical packages used by public policy analysts and economists. STATA is available on the computers in the DPP computer lab. In addition, students can purchase a one-year license for Stata IC 13 for $98. See the following website for further details.
http://www.software.uconn.edu/software/software_detail.php?softid=stata

Requirements:
Course grades are based on 2 semester exams, a final exam and a set of problem sets. The relative weight assigned to each of these in the determination of course grades is:

Semester Exams	50% (25% each)
Final Exam	30%
Problem Sets	20%

Academic Accommodation:
Please let me know in the first two weeks if you have a disability that may be relevant in this class. You can communicate with either the Center for Students with Disabilities (CSD) or the University Program for College Students with Learning Disabilities (UPLD) as a first step.

Academic Code of Conduct:
Students are expected to undertake all assignments with honesty and integrity as detailed in the University of Connecticut's Responsibilities for Community Life: The Student Code. Please see: http://www.dosa.uconn.edu/student_code.html. Violations of this policy can result in severe penalties.

Course Overview
Topic
Chapter/Section
1. Introduction to Quantitative Methods for Public Policy 1
2. Random Variables and Probability Distribution Functions
    a) Discrete and Continuous Random Variables
    b) Probability Distribution Functions
    c) Characteristics of Random Variables (Expected Value, Variance, etc)

3. Estimators and Sampling Distributions
    a) Point Estimators
    b) Sampling Distributions for sample mean and variance
    c) Important Probability Distributions

4. Statistical Inference: Estimation and Hypothesis Testing
    a) Inference regarding the population mean
    b) Inference regarding the population variance

5. Introduction to Linear Relationships
    a) Jointly Distributed Random Variables

b) Covariance and Correlation
c) Estimating Linear Relationships

Exam One

6. Simple Linear Regression
    a) Simple Linear Regression Model
    b) Estimation and Interpretation
    c) Inference 4 & 5

7. Multivariate Regression Analysis
    a) The Multivariate Regression Model
    b) Estimation and Interpretation
    c) Inference 6 & 7

Exam Two

8. Nonlinear Regression Functions
    a) Functional Form
    b) Dummy Variables and Interaction Terms

9. Regression with Binary Dependent Variables
    a) The Linear Probability Model
    b) Probit and Logit Models

10. Special Topics
    a) Robust Inference with Heteroscedasticity
    b) Introduction to Randomized Experiments

Class Notes

Final Exam