Add Course Request

Submitted on: 2013-09-10 12:37:41

1. **COURSE SUBJECT**	URBN
2. **COURSE NUMBER** (OR PROPOSED NUMBER)	2301Q
3. **COURSE TITLE**	Research Methods and Analysis in UCS
4. **INITIATING DEPARTMENT or UNIT**	Urban and Community Studies
5. **NAME OF SUBMITTER**	Edith Barrett
6. **PHONE of SUBMITTER**	Phone: +1 860 570 9029
7. **EMAIL of SUBMITTER**	Email: edith.barrett@uconn.edu
8. **CONTACT PERSON**	Edith Barrett
9.**UNIT NUMBER of CONTACT PERSON** (U-BOX)	HTFD
10. **PHONE of contact person**	Phone: 860-570-9029
11. **EMAIL of of contact person**	Email: edith.barrett@uconn.edu
12. Departmental Approval Date	10/24/2012
13. School/College Approval Date	04/03/2013
14. Names and Dates of additional Department and School/College approvals	
15. Proposed Implementation Date	Term: Summer, Year: 2014
16.Offered before next printed catalog is distributed?	Yes
17. **General Education Content Area**	
18. **General Education Skill Code (W/Q).** Any non-W section?	Q
19. Terms Offered	Semester: Fall Spring Summer Year: Every_Year
20. Sections	Sections Taught: 1
21. Student Number	Students/Sections: 25
22. Clarification:	
23. **Number of Credits**	3 if VAR Min: Max: credits each term

24. **INSTRUCTIONAL PATTERN**
Initially, the course will be offered through the web during the long summer session. Students will have weekly lessons, readings, assignments, and exams with a calendar and deadlines. There

will be no specific real-time class meeting, however. It is also the intention of the UCS program to offer the course every other year on each of the primary campuses offering the UCS major (Greater Hartford, Storrs, Waterbury).

25. Will this course be taught in a language other than English?	No If yes, then name the language:

26. Please list any prerequisites, recommended preparation or suggested preparation:
STAT 1000Q or STAT 1100Q

27. Is Instructor, Dept. Head or Unit **Consent Required**?	No

28. Permissions and Exclusions:

Other, specify: Open to sophomores or higher

29. Is this course **repeatable for credit**?	No If yes, total credits allowed: Allow multiple enrollments in same term?

30. **Grading Basis**	Graded

31. If satisfactory/unsatisfactory grading is proposed, please provide **rationale**:
NA

32. Will the course or any sections of the course be taught as Honors?
No

33. Additional Details:

Offered at the Greater Hartford, Storrs, Waterbury campus
Other (specify): web-based course

34. Special Attributes:

web-based during summer session

35. **REGIONAL CAMPUS AVAILABILITY**:
The course will be offered through the web during the summer session and will be open to students regardless of campus.

36. PROVIDE THE PROPOSED TITLE AND COMPLETE CATALOG COPY:

URBN 2301. Research Methods in Urban and Community Studies

Three credits. Prerequisite: STAT 1000Q or 1100Q. Open to sophomores or higher.

An introduction to research methods and analysis techniques useful in understanding urban issues and assessing public and non-profit social programs.

37. **RATIONALE** FOR ACTION REQUESTED

The UCS major currently offers no URBN course that specifically addresses the methods and statistical techniques used by urban scholars. We have relied on other departments to give our students the necessary background, but this has meant that our students do not necessarily know

skills specific to our discipline. To be sure there are overlaps with other social sciences, but the issues addressed in urban studies are unique to the field, and students would benefit from a course that deals specifically with urban-focused data. Initially the course will be offered exclusively online. The UCS major is available on four UConn campuses (Greater Hartford, Storrs, Torrington, and Waterbury) and offering a UCS research course online will better enable students across the system to complete their degree in a timely manner.

38. **SYLLABUS:**

Online URL: (https://web2.uconn.edu/senateform/request/course_uploads/edb11004-1378830264-URBN 2301 Methods and Analysis in UCS.docx)

39. **Course Information: ALL General Education courses, including W and Q courses, MUST answer this question**

a. The objective of this course is to introduce students to the research methodologies and statistical techniques useful in analysis of urban-issue related data. The course covers methodological concerns such as research design, measurement, and data collection, as well as some of the elementary statistical techniques for univariate and bivariate data analysis. Students should gain a working knowledge of each technique and should be able to apply each technique when appropriate for the data and research question.

b. midterm exam, final exam, and weekly problem assignments.

c. Why we do Research, and the Scientific Method
Topic Selection and Hypothesis Formation
Research Design
Sampling
Measurement Strategies: Scaling, Reliability, and Validity
Data Collection Techniques
Describing Variables: Charts and Graphs
Describing Single Variables: Descriptive Statistics
Testing Statistical Significance: Inferential Statistics
Nonparametric Statistics: Cross-Tabulation and Chi Square
Pearson Product-Moment Correlation and Simple Regression

d. NA

40. **Goals of General Education: All Courses Proposed for a Gen Ed Content Area MUST answer this question**

Q requirements

1. Include mathematics and/or statistics at or above the basic algebra level as an integral part of the course which is used throughout the course. During the second half of the course, students will be computing simple descriptive and inferential statistics by hand in order to help them better understand what the formula represent. Students will also use the computed statistics to test hypotheses, thus requiring them to use the numbers to answer a deeper question.

2. Include use of basic algebraic concepts such as: formulas and functions, linear and quadratic equations and their graphs, systems of equations, polynomials, fractional expressions, exponents, powers and roots, problem solving and word problems. As mentioned under #1, students will use the statistics they compute to address urban research questions. The students will become familiar with statistical formulas, how they are used mathematically, and what they can tell us about our urban world.

3. Require the student to understand and carry out actual mathematical and/or statistical manipulations, and relate them to whatever data might be provided in order to draw conclusions. Students will be doing computations without the aid of a statistical software package. They will be allowed to use calculators and spreadsheets, but to use either, they will need to know how to manipulate the formulas. The expectation at the end of the course is that students will know not only which statistical test is appropriate for the given data and research question, but also how to use that test and what the results mean.

41. **Content Area and/or Competency Criteria: ALL General Education courses, including W and Q courses, MUST answer this question.:** Specific Criteria

   a. **Arts and Humanities:**
   b. **Social Sciences:**
   c. **Science and Technology:**
     i. **Laboratory:**
   d. **Diversity and Multiculturalism:**
     43. **International:**
   e. **Q course:**

1. Include mathematics and/or statistics at or above the basic algebra level as an integral part of the course which is used throughout the course. During the second half of the course, students will be computing simple descriptive and inferential statistics by hand in order to help them better understand what the formula represent. Students will also use the computed statistics to test hypotheses, thus requiring them to use the numbers to answer a deeper question.

2. Include use of basic algebraic concepts such as: formulas and functions, linear and quadratic equations and their graphs, systems of equations, polynomials, fractional expressions, exponents, powers and roots, problem solving and word problems. As mentioned under #1, students will use the statistics they compute to address urban research questions. The students will become familiar with statistical formulas, how they are used mathematically, and what they can tell us about our urban world.

3. Require the student to understand and carry out actual mathematical and/or statistical manipulations, and relate them to whatever data might be provided in order to draw conclusions. Students will be doing computations without the aid of a statistical software package. They will be allowed to use calculators and spreadsheets, but to use either, they will need to know how to manipulate the formulas. The expectation at the end of the course is that students will know not only which statistical test is appropriate for the given data and research question, but also how to

use that test and what the results mean.
f. **W course:**

42. **RESOURCES:** Does the department/school/program currently have resources to offer the course as proposed YES If NO, please explain why and what resources are required to offer the course.
43. **SUPPLEMENTARY INFORMATION**:
ADMIN COMMENT: Senate approved new course 11.11.13. NewQ_091013kcp.

URBN 2301

RESEARCH METHODS AND ANALYSIS IN URBAN AND COMMUNITY STUDIES

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COURSE DESCRIPTION

The objective of this course is to introduce students to the research methodologies and statistical techniques useful in analysis of urban-issue related data. The course covers methodological concerns such as research design, measurement, and data collection, as well as some of the elementary statistical techniques for univariate and bivariate data analysis. Students should gain a working knowledge of each technique and should be able to apply each technique when appropriate for the data and research question.

The course is taught in two parts. The first half of the course (Lessons 1-6) focuses on design issues, and the second half of the course (Lessons 7-11) addresses statistical techniques useful

for analyzing urban data. In addition to weekly problem assignments, there will be a midterm at the end of the first half of the course and a non-comprehensive final exam at the end of the second half of the course.

LEARNING OBJECTIVES

After completion of this course, students will be able to:

- Formulate a researchable topic and write a research hypothesis to answer the specific question.
- Determine the dependent and independent variables in a research project.
- Identify different levels of measurement.
- Identify useful sources of data.
- Compute parametric measures of central tendency and dispersion.
- Demonstrate an understanding of and be able to apply basic statistical tests of significance, including z-test, t-test, and chi-square.
- Demonstrate an understanding of the relationship between variables, be able to compute a Pearson Product-Moment correlation, and explain the meaning of a two independent variable multiple regression equation.

COURSE REQUIREMENTS AND GRADING POLICY

Grades will be computed as follows:

Homework assignments	30%
Midterm Exam	35%
Final Exam	35%

Final Grades will be based on the following scale:

		B+	88-89.9	C+	78-79.9	D+	68-69.9		
A	92+	B	82-87.9	C	72-77.9	D	62-67.9	F	<60
A-	90-91.9	B-	80-81.9	C-	70-71.9	D-	60-61.9		

TEXTS AND ADDITIONAL COURSE MATERIALS

Remler, Dahlia K., & van Ryzin, Gregg G. (2011). *Research Methods in practice: Strategies for Description and Causation*. Thousand Oaks, CA: Sage Press. ISBN: 978-1-4129-6467-8
Other reading materials are available on the course HuskyCT.

PLAGIARISM AND ACADEMIC DISHONESTY

Plagiarism is defined as:

- Using someone else's work in your assignment without appropriate acknowledgement.

- Making slight variations in the language and then failing to give credit to the source.

Cheating is defined as:

- Copying another's test or assignment.

- Communication with another during an exam or assignment (i.e. written, oral or otherwise).

- Giving or seeking aid from another when not permitted by the instructor.

- Buying, using, stealing, transporting, or soliciting a test, draft of a test, or answer key.

- Possessing or using unauthorized materials during the test.

Common examples of plagiarism include:

- Copying and pasting from a website without properly attributing and citing the source

- Quoting word-for-word from previously published work, such as a website, textbook, article, etc., without using quote marks and properly attributing and citing the source

- Paraphrasing and/or borrowing ideas from previously published work, such as a website, textbook, article, etc., without properly attributing and citing the source.

Plagiarism and cheating will not be accepted in this course. For more information on the topic, see the Student Code (http://www.community.uconn.edu/student_code_appendixa.html).

WEEKLY TOPICS AND READINGS

Session 1: Introduction to the Course, Why we do Research, and the Scientic Method
Readings
Remler & van Ryzin, *Research Methods in Practice*, Chap 1

Session 2: Topic Selection and Hypothesis Formation
Readings
Remler & van Ryzin, *Research Methods in Practice*, Chap 2

Session 3: Research Design
Readings
Remler & van Ryzin, *Research Methods in Practice*, Chap 12, 13

Session 4: Sampling
Readings
Remler & van Ryzin, *Research Methods in Practice*, pp. 139-160; 169-176

Session 5: Measurement Strategies: Scaling, Reliability, and Validity
Readings
Remler & van Ryzin, *Research Methods in Practice*, Chap 4
Guttman Scalting: http://www.socialresearchmethods.net/kb/scalgutt.php
Likert Scaling: http://www.socialresearchmethods.net/kb/scallik.php
Thurstone Scaling: http://www.socialresearchmethods.net/kb/scalthur.php

Session 6: Data Collection Techniques
Readings
Remler & van Ryzin, *Research Methods in Practice*, pp. 181-195; 211-237

Midterm Exam

Session 7: Describing Single Variables: Charts and Graphs
Readings
Remler & van Ryzin, *Research Methods in Practice*, pp. 241-250
Ott, R. Lyman, Larson, Richard, Rexroat, Cynthia, & Mendedhall, William. (1992). *Statistics: A Tool for the Social Sciences*. Boston: PWS-Kent Publishing. Chapter 3 (pp. 50-80)

Session 8: Describing Single Variables: Descriptive Statistics
Readings
Remler & van Ryzin, *Research Methods in Practice*, pp. 250-255

Healy, Joseph. (1990). Statistics: A Tool for Social Research. Belmont, CA: Wadsworth. Chapters 3 and 4 (pp. 52-91).

Schutt, Russell. (2006). Investifating the Social World. Thousand Oaks, CA: Pine Forge Press. (pp. 457-466).

Session 9: Testing Statistical Significance: Inferential Statistics

<u>Readings</u>

Remler & van Ryzin, *Research Methods in Practice*, pp. 160-168; 270-282

Ott, R. Lyman, Larson, Richard, Rexroat, Cynthia, & Mendedhall, William. (1992). *Statistics: A Tool for the Social Sciences*. Boston: PWS-Kent Publishing. Chapter 7 (pp. 240-274 only)

Kenny, David. (1987). Statistics for the Social and Behavioral Science. Boston; Little, Brown. Chapter 13 (pp. 203-211 only).

Session 10: Nonparametric Statistics: Cross-Tabulation and Chi Square

<u>Readings</u>

Remler & van Ryzin, *Research Methods in Practice*, pp. 256-258

Bohrnstedt, George, and Knoke, David. Statistics for Social Data Analysis. Itasca, IL: F. E. Peacock. Chapter 5 (pp. 101-127)

Session 11: Pearson Product-Moment Correlation and Simple Regression

<u>Readings</u>

Remler & van Ryzin, *Research Methods in Practice*, pp. 260-268; 293-303

Kenny, David. (1987). Statistics for the Social and Behavioral Science. Chapter 7 (pp. 108-126).

Final Exam