Washington State University
MAJOR CURRICULAR CHANGE FORM - COURSE
(Submit original signed form and ten copies to the Registrar’s Office, zip 1035.)

Future Effective Date: 08/16/2013
(effective date cannot be retroactive)

☐ New course  ☐ Temporary course  ☐ Drop service course
☐ There is a course fee associated with this course (see instructions)

☐ Variable credit
☐ Increase credit (former credit _______)
☐ Number (former number 504 _______)
☐ Crosslisting (between WSU departments)
(Must have both departmental signatures)

☐ Conjoint listing (400/500)
☐ Request to meet Writing in the Major [M] requirement (Must have All-University Writing Committee Approval)
☐ Request to meet GER in _______ (Must have GenEd Committee Approval)
☐ Professional course (Pharmacy & Vet Med only)
☐ Graduate credit (professional programs only)
☐ Other (please list request)

CrmJ

Crscourse prefix
522 course no.

Foundations of Quantitative Methods

title


3 3 0 0

credit lecture hrs lab hrs studio hrs per week per week per week

prerequisite

Description (20 words or less) Application of foundational quantitative methods utilized in the field of Criminal Justice and Criminology.

Instructor: Hamilton, Zachary
Contact: Mareinin, Otwin
Campus Zip Code: 4872

Phone number: (509) 358-7961
Email: zachary.hamilton@wsu.edu
Phone number: (509) 335-8428
Email: otwin@wsu.edu

- Please attach rationale for your request, a current and complete syllabus, and explain how this impacts other units in Pullman and other branches (if applicable).
- Secure all required signatures and provide 10 copies to the Registrar’s Office.

Chair/date 9/16/12
Dean/date 9/24/12
General Education Com/date
Dean (if crosslisted/interdisciplinary) *
Graduate Studies Com/date

All-University Writing Com/date
Academic Affairs Com/date
Senate/date

*If the proposed change impacts or involves collaboration with other units, use the additional signature lines provided for each impacted unit and college.
FOUNDATIONS OF QUANTITATIVE METHODS

CRMJ 522

Instructor: Zachary Hamilton, PhD
Office: SAC 403K
Phone: 509.358.7961
Office Hours: By appointment only
Email: zachary.hamilton@wsu.edu

Course Description

The intent of this course is to provide students with a base of knowledge toward the further use of statistical methods in Criminal Justice. Although there will be some overlap, it is anticipated that students enter the course with some basic knowledge of experimental and quantitative methods. The structure of this course does not focus on the understanding of statistical formulas but instead examines the use and manipulation of data through statistical software. Students will be expected to manipulate and analyze data using SPSS, structure and create visual aids of analysis findings and become proficient academic writers of statistical findings.

Course Objectives

1. To help students think clearly about applying research designs and quantitative methods to their areas of research interest, to prepare them for independent research.
2. To build a foundation for thinking about causal inference in quantitative observational research.
3. To further develop the skills for consuming and critiquing research.
4. To gain hands-on experience with all steps of the process of conducting quantitative research.

Course Materials


Attendance and Participation

Students are expected to attend class and read course materials. Course material is comprehensive, in the sense that new material builds upon the understanding of previous lessons learned. Some, or all, of the material discussed will be difficult to grasp. Missing classes may result in a significant lack of understanding, and create difficulty in the comprehension of future class discussions.

Attendance and participation will not be factored into the final grade. With the exception of exam and assignment due dates, it is not necessary to provide any written or verbal notice for missing class. Although it is strongly suggested that one attends every class, the responsibility of attendance and attaining course materials (assignments and class notes) falls squarely on the student. Even if a valid excuse is presented, the instructor will not provide notes to any student who fails to attend any particular class session.

Assignments

Course assignments are completed each week and are designed to apply what you have learned in the previous week. Most assignments will require an analysis of data in SPSS, the creation of visual aids (tables and figures) and written interpretation of findings. It is expected that assignments will be completed in MS Word. Tables and figures can be created using MS Word, Excel or SPSS. However, all tables provided and the write-up of findings must be of “journal quality” with proper titles, legends and axis labels. Students are
encouraged to examine journal articles with similar analyses and examples provided in the course Dropbox. Assignments are assigned on the week the course material is presented and are due at the beginning of the following week's class. If a student is unable to attend class they must make arrangements to submit their assignment early to the Instructor. Late assignments will only be allowed with valid documentation (i.e. Physician's note of illness).

Instructor Availability

Regular office hours will not be provided. It has been the experience of the Instructor that making appointments tends to be the most efficient way of assisting student outside of class. Most weeks the Instructor conducts a regular (9-5) workweek. Appointments may be made anytime within this period and appointments outside of this time period are also available when deemed necessary. The best way to arrange an appointment is to send an email with suggested dates and times of availability. It is the student's responsibility to make the appropriate arrangements to gain outside assistance. The Instructor will not track students down if they are failing or having difficulty grasping course content. To repeat, if a student is having difficulties, it is the student's responsibility to make an appointment with the Instructor to attain the appropriate assistance.

It is not the Instructor's intention to give "C's", "D's" or "F's" and will make every attempt to assist students who require additional attention. However, one should not confuse empathy with sympathy. If an individual fails to complete any of the requirements listed, they will be graded appropriately and exceptions will not be provided.

Course Medium

This course will take place in two campuses, Pullman and Spokane. The Instructor will, for the most part, lecture from the Spokane campus. AMS will be used to provide a video conference of lectures to the (other) remote campus. For those unable to attend class, or need a refresher from past lectures, AMS uploads the video recording of each course and makes them available to registered students typically within a few days after class. To view video recordings please visit the following webpage https://ams.wsu.edu/Videostreaming/ClassList.aspx?sem=Fall&y=2012. However, students should not rely on the availability of video recordings as an excuse for not attending course lectures. The Instructor will not make a habit of providing additional instruction or clarification of lecture recordings or materials for students that do not attend class for reasons other than an excused absence.

Course materials will include the use of PowerPoint slides, data sets and SPSS syntax files. Because of the size of these files, course materials will be made available via Dropbox. The DropBox program can be installed on your computer and allows the Instructor to share large files with you. It is important to note that the files are being shared with you and belong to the Instructor. When obtaining files from the Dropbox do not delete or save files in the Instructor's Dropbox folder. Copy, paste and save the files to your own computer prior to using them. All lecture materials will be made available prior to class and all assignment materials will be provided a week prior to their due dates. The Instructor will send you an invitation to drop box that will direct you to the programs web space and allow you to set up an account. The free account offered will be all that you need to create. All other course materials will be made available via the course space on Angel.

Midterm Grade Submittal

Midterm grades will be submitted for all students by 5:00 p.m. on the Wednesday of the eighth week of the semester. Midterm grades will consist of a C or F grade only. For midterm grades, C and F are defined as follows: A C midterm grade is given to any student who is making satisfactory progress. An F midterm grade is given to any student whose progress is not acceptable and who needs to discuss his/her progress with the instructor. This assessment should not be interpreted as a formal grade, but rather as an indication of
the student's progress to date. Midterm grades are advisory and do not appear on the student's permanent record, the WSU transcript.

**Academic Dishonesty and Plagiarism Policy**

The WSU Statement on Academic Integrity (which includes plagiarism) reads:

As an institution of higher education, Washington State University is committed to principles of truth and academic honesty. All members of the University community share the responsibility for maintaining and supporting these principles. When a student enrolls in Washington State University, the student assumes an obligation to pursue academic endeavors in a manner consistent with the standards of academic integrity adopted by the University. To maintain the academic integrity of the community, the University cannot tolerate acts of academic dishonesty including any forms of cheating, plagiarism, or fabrication. Washington State University reserves the right and the power to discipline or to exclude students who engage in academic dishonesty.

Responses to cheating/plagiarism in this course will be as follows:

1st Offense: Any assignment plagiarized will receive an "F" (0 points) and the matter referred to the Criminal Justice Director and the Office of Student Affairs. Students will not be allowed to rewrite or resubmit a plagiarized assignment.

2nd Offense: The student will receive an "F" in the course with repeat referrals.

For clarification on what constitutes plagiarism, refer to the following websites:
1. http://owl.english.purdue.edu/owl/resource/589/1/
2. www.wsulibs.wsu.edu/plagiarism/main.html

**Campus Safety Plan**

The WSU (Pullman) campus Safety Plan can be found at http://safetyplan.wsu.edu. A listing of university policies and information related to campus safety, emergency management and the health and welfare of the campus community can be found at http://oem.wsu.edu/emergencies.

**Students with Disabilities**

Reasonable accommodations are available for students with a documented disability. If you have a disability and may need accommodations to fully participate in this class, please visit the Disability Resource Center (DRC). All accommodations MUST be approved through the DRC (Admin Annex Bldg, Room 205). Please stop by or call 509-335-3417 to make an appointment with a disability specialist. If you have questions, please contact Rosie Pavlov at pavlovrt@wsu.edu or 335-3417. Additional information is available on the DRC website is www.drc.wsu.edu.

**Examinations**

Two examinations (a midterm and a final) will be given. Test dates are announced in the syllabus, but the instructor reserves the right to move test dates according to the progress made in class. The tests will cover textbook and lecture materials.
Grade Distribution

Assignments (10) 30%
Midterm 35%
Final 35%

Make-up Examination and Late Work

Both of the examinations are to be taken at their scheduled dates and times. There will be no make-up examinations, with the exception of documented medical and/or family emergency. If available, prior notification of said emergencies is required. Late assignments will be deducted a full letter grade for day they are late. The clock for late assignments begins at the conclusion of the lecture in which they are due.

Course Schedule

August
21st
Introduction

23rd
Experimental and Sampling Methods

28th
Introduction to SPSS
Required Reading: Field Ch 3 & 4

30th
Univariate Statistics: Central Tendency, Dispersion and Error
Required Reading: Field Ch 1and 2
Assignment 1 due

September
1st
Univariate Statistics: Central Tendency, Dispersion and Error
Continued

5th
Checking and Cleaning: Assumptions, Outliers and Missing Data
Required Reading: Field Ch. 5

Week 2

Week 3

11th
Checking and Cleaning: Assumptions, Outliers and Missing Data
Continued
Assignment 2 due

13th
Bivariate Statistics: Continuous Data Analysis (Correlations)
Required Reading: Field Ch. 6

Week 4

Week 5

18th
Bivariate Statistics: Continuous Data Analysis (Correlations)
Continued
Assignment 3 due

20th
Bivariate Statistics: Categorical Data Analysis (Cross-Tabulations)
Required Reading: Field Ch. 18

Week 6

25th
Bivariate Statistics: Categorical Data Analysis (Cross-Tabulations)
Continued
Assignment 4 due

27th
Bivariate Statistics: Comparing Means (t-Tests and ANOVAs)
Required Reading: Field Ch. 9 and 10
October

2nd Bivariate Statistics: Comparing Means (t-Tests and ANOVAs)

4th Midterm Exam Review

9th **Midterm Exam**

16th OLS Regression
Required Reading: Field Ch7
Assignment 6 due

23rd OLS Regression
*Continued*

25th OLS Regression
*Continued*

30th Logistic Regression
Required Reading: Field Ch8

November

1st Logistic Regression
*Continued*
Assignment 7 due

6th Propensity Score Matching

8th Propensity Score Matching
Assignment 8 due

13th No Class - ASC

15th No Class - ASC

20th No Class - Thanksgiving

22nd No Class - Thanksgiving

27th Reliability, Factor Analysis and an introduction to Latent Class Analysis
Required Reading: Field Ch 17
Assignment 9 due

29th Reliability, Factor Analysis and an introduction to Latent Class Analysis
*Continued*

December

4th Final Exam Review
Assignment 10 due

6th **Final Exam**

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Required Reading: Field Ch 1and 2

Assignment 1 due

September

4<sup>th</sup>  Univariate Statistics: Central Tendency, Dispersion and Error

Continued

6<sup>th</sup>  Checking and Cleaning: Assumptions, Outliers and Missing Data

Required Reading: Field Ch. 5

11<sup>th</sup>  Checking and Cleaning: Assumptions, Outliers and Missing Data

Continued

Assignment 2 due

13<sup>th</sup>  Bivariate Statistics: Continuous Data Analysis (Correlations)

Required Reading: Field Ch. 6

Week 5

18<sup>th</sup>  Bivariate Statistics: Continuous Data Analysis (Correlations)

Continued

Assignment 3 due

20<sup>th</sup>  Bivariate Statistics: Categorical Data Analysis (Cross-Tabulations)

Required Reading: Field Ch. 18

Week 6

25<sup>th</sup>  Bivariate Statistics: Categorical Data Analysis (Cross-Tabulations)

Continued

Assignment 4 due

27<sup>th</sup>  Bivariate Statistics: Comparing Means (t-Tests and ANOVAs)

Required Reading: Field Ch. 9 and 10

October

2<sup>nd</sup>  Bivariate Statistics: Comparing Means (t-Tests and ANOVAs)

Continued

Assignment 5 due

4<sup>th</sup>  Midterm Exam Review
9th
Midterm Exam
OLS Regression
Required Reading: Field Ch7
Assignment 6 due

16th
Week 8

23rd
OLS Regression
Continued

25th
OLS Regression
Continued

30th
Logistic Regression
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November
1st
Logistic Regression
Continued
Assignment 7 due

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27th
Reliability, Factor Analysis and an introduction to Latent Class Analysis
Required Reading: Field Ch 17
Assignment 9 due

29th
Reliability, Factor Analysis and an introduction to Latent Class Analysis
Continued

Week 10

December
4th
Dead Week

6th
Dead Week

11th
Final Exam Review
Assignment 10 due

13th
Final Exam

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