ED 601 - RESEARCH AND PROGRAM EVALUATION
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Spring 2019
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COURSE DESCRIPTION
This course is designed to provide a foundation in basic social science research methods, particularly as they pertain to counseling. Issues in research design, basic statistics, and systematic evaluation are stressed. Students will learn how to read and understand research studies in order to develop an evidence-based practice and how to gather and use data in their own practices. This is an introductory research class, and it assumes no prior knowledge of quantitative, qualitative, or experimental techniques.

OBJECTIVES AND RELATIONSHIP TO PROGRAM GOALS
This course has five main objectives: (1) increase your understanding of the importance of research in the counseling profession, (2) increase your research literacy and understanding of research design, (3) increase your knowledge of basic statistics, (4) increase your knowledge of and competency in program evaluation, and (5) increase your competency in the use of technology in program evaluation and research. This course addresses the following program goal: Critically and intentionally utilize multiple theories of counseling and human development and multiple sources of evidence to inform and develop their own practice and to promote growth and positive change.

CACREP (2016) STANDARDS ADDRESSED IN THIS CLASS
Section 2F8: Research and Program Evaluation
a. the importance of research in advancing the counseling profession, including how to critique research to inform counseling practice
b. identification of evidence-based counseling practices
c. needs assessments
d. development of outcome measures for counseling programs
e. evaluation of counseling interventions and programs
f. qualitative, quantitative, and mixed research methods
g. designs used in research and program evaluation
h. statistical methods used in conducting research and program evaluation
i. analysis and use of data in counseling
j. ethical and culturally relevant strategies for conducting, interpreting, and reporting the results of research and/or program evaluation
Summary Outline of Competencies/Topics

I. Research methods
   a. Quantitative
      i. Descriptive
      ii. Correlational
      iii. Quasi-experimental
      iv. Experimental
   b. Qualitative methods and naturalistic inquiry
   c. Mixed methods
   d. Action research

II. Research literacy

III. Program evaluation
   a. Assessing needs
   b. Gathering data
   c. Interpreting data
   d. Reporting results

IV. Statistical concepts and skills
   a. Descriptive statistics
      i. Measures of central tendency
         1. Mean
         2. Median
         3. Mode
      ii. Measures of variability/dispersion
         1. Range
         2. Percentiles/Quartiles
         3. Variance
         4. Standard deviation
         5. Skewness
         6. Kurtosis
      iii. Graphical representation of data
         1. Frequency distributions
         2. Bar chart and histogram
         3. Time-series graph
         4. Measures of relative position
         5. Hypothesis testing
         6. Statistical significance
   b. Inferential statistics
      i. Correlation coefficient (Pearson’s r)
      ii. t-tests
      iii. ANOVA
      iv. Linear regression
OUTLINE OF CONTENT AND SCHEDULE OF COURSE WORK

- Assignments listed for each week are to be read in advance of the class session.
- Some adjustments to this outline may need to be made as the course advances, depending on group discussions, progress, and group project needs.
- OSB= OnlineStatBook

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<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>TOPICS &amp; TASKS</th>
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| 1    | 1/28  | Course overview; The research process; Statistics intro; Measures of central tendency  
Assignment: Houser, ch. 1 & ch. 11; OSB ch. 3A: [central tendency](#)  
Lab: Excel overview; mean, median, mode |
| 2    | 2/4   | Research ethics; Measures of variability; Frequency distributions pt.1  
Assignment: Price et al. (2017), ch.3; [OSB ch. 1](#) (Introduction, sections A through I [Distributions]), ch. 7 and ch. 3 section on measures of variability  
Lab: range, standard deviation, variance |
| 3    | 2/11  | Formulating research questions; Evaluating research articles (pt. 1); Frequency/graphing distributions , part 2  
Assignment: Houser, ch. 11; Develop a Research Question (Canvas);  
OSB [ch. II](#) (Graphing distributions)  
Lab: Graphs  
Homework #1 due |
| 4    | 2/18  | Quantitative research designs; Evaluating research articles (pt. 2); Program evaluation; Correlations  
Assignment: Houser, ch. 4 & 19; OSB [ch. 4](#)  
Lab: Correlations |
| 5    | 2/25  | Quantitative designs (cont’d); Reliability & validity; Culturally competent research; Developing outcome measures  
Assignment: Houser, ch. 12, [OSB VI.3](#) (Measurement); [CRR OMSI guide](#); Kwan et al. (2018)  
Lab: time dedicated for group project work  
Homework #2 due |
| 6    | 3/4   | Surveys; Interviews; The normal curve & the Central Limit Theorem; Probability  
Assignment: Price et al. (2017); Salkind, ch. 8 (in Canvas); OSB [ch. VII](#)  
Exam # 1  
Lab: z scores |
| 7    | 3/11  | Hypotheses and significance testing; Intro to qualitative research  
Assignment: Houser, ch. 5; OSB [ch. XI](#)  
Lab: Z-tests |
| 8    | 3/18  | Spring Recess- no class |
### Qualitative Research; Program Evaluation
Assignment: Houser ch. 6 and 19; Trochim (2006); Dimmitt (2010)
Lab: surveys

### T-tests; Culturally Competent Evaluation
Assignment: CDC ‘Practical Strategies’ booklet; t-test [URL 1], [URL 2], [URL 3]; Salkind statistical decision tree (in Canvas)
Lab: t-tests

**Homework #3 due**

### Presenting Results; ANOVA, MANOVA
Assignment: Holm-Hansen (2008); Comfort & Hoggarth, ch. 9; ANOVA [URL 1, URL 2]
Lab: ANOVA

### Action Research; Correlation Coefficient
Assignment: Guiffrida et al. (2011); Whiston (1996); Peg et al. (2015); OSB ch. IV (through ‘Computing Pearson’s r’)
Lab: correlation coefficient

### Linear Regression; Nonparametric Tests; Group Project Work
Assignment: [URL 1, URL 2, URL 3, URL 4]
Lab: linear regression

### Class Time Dedicated to Working on Group Project

### Group Project Presentation; Project Paper Due; Review
No lab- time available for independent or group study session

### Exam #2

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**Requirements and Evaluation**
Knowledge and skills will be evaluated as indicated above and as follows:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>CACREP 2F8</th>
<th>Points</th>
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<tbody>
<tr>
<td>Homework 1</td>
<td>h,i</td>
<td>10</td>
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<tr>
<td>Homework 2</td>
<td>h,i,j</td>
<td>10</td>
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<tr>
<td>Homework 3</td>
<td>c,h,i</td>
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<tr>
<td>Exam #1</td>
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<tr>
<td>Exam #2</td>
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<tr>
<td>Group program evaluation project</td>
<td>a,b,c,d,e,f,g,h,i,j</td>
<td>30</td>
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<tr>
<td>Total</td>
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<td>100</td>
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A 92%
B 82%
C 72%
D see me
**Homework:** You will have three homework assignments that will assess your knowledge and skills related to the course content. Some of the assignments will require the use of Microsoft Excel to complete. Excel is installed on most computers on campus. In addition, Excel 2016 is available to students for free on vDesk (https://vdesk.pugetsound.edu). Students can also install Excel and the Office 365 suite for free here: https://products.office.com/en-us/student/office-in-education. Please note that there may be restrictions on installing and using the Data Analysis Toolpak if using the vDesk or Office 365 versions of Excel.

**Exams:** There are two exams during the course. The first exam will focus on basic premises of research, qualitative research methods, descriptive statistics, and additional topics covered within the first half of the course. The second exam is more comprehensive but will focus on quantitative research methods, inferential statistics, program evaluation, and additional topics covered within the second half of the course.

**Evaluation Project:** Students will work together on a group evaluation project to apply and demonstrate knowledge skills learned in the course. The project will involve evaluating aspects of a counseling program and will progress through the steps of program evaluation from setting the boundaries of the evaluation to the final reporting. As is typical with many program evaluations, the project may evolve as the work progresses. The project will include a literature review, use quantitative and qualitative approaches, and will conclude with an in-class presentation and a written report. While some class time will be set aside for work on the project, successful completion of this project will require additional time beyond class hours. More information will be given throughout the course.

It is expected that students take responsibility for timely completion of written work. It is the student's responsibility to ensure that material submitted electronically has been received. If you do not receive confirmation of receipt, please contact the instructor. Laboratory sessions, small group discussions and general participation, are as important as class lectures. Regular attendance and on-time arrival ensures optimal participation. The above variables will be taken into account when grading.
REQUIRED TEXTS


REQUIRED ARTICLES


OTHER RELEVANT INFORMATION

Classroom Emergency Response Guidance

Please review university emergency preparedness, response procedures and a training video posted at [www.pugetsound.edu/emergency/](http://www.pugetsound.edu/emergency/). There is a link on the university home page. Familiarize yourself with hall exit doors and the designated gathering area for your class and laboratory buildings.

If building evacuation becomes necessary (e.g. earthquake), meet your instructor at the designated gathering area so she/he can account for your presence. Then wait for further instructions. Do not return to the building or classroom until advised by a university emergency response representative.

If confronted by an act of violence, be prepared to make quick decisions to protect your safety. Flee the area by running away from the source of danger if you can safely do so. If this is not possible, shelter in place by securing classroom or lab doors and windows, closing blinds, and turning off room lights. Lie on the floor out of sight and away from windows and doors. Place cell phones or pagers on vibrate so that you can receive messages quietly. Wait for further instructions.

Office of Accessibility and Accommodations

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Peggy Perno, Director of the Office of Accessibility and Accommodations, 105 Howarth, 253.879.3395. She will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

Copyright and Fair Use

Course materials are for educational purposes only and limited to students enrolled in the course. They are protected by copyright law and may not be copied, downloaded, stored, transmitted, shared or changed in any way.

Names and Pronouns

I want to call you by what you consider you name, no matter what the official roster might tell me. Similarly, I want to use pronouns appropriate to your gender. Please inform me if you want me to refer to you differently than the official record.