

**HDCN 6349**  
**Research Methods & Statistics**  
**Winter Term 2014**

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Office Hours: By Appointment

**Course Description:**

This course will help you become a more discerning research consumer. My goal is for you to be able to evaluate the quality and importance of research in counseling. Your ability to evaluate research will be crucial to your future adoption of counseling techniques and your subsequent career development.

**Text:**

**Cozby, P. & Bates, S. Methods in Behavioral Research, 11<sup>th</sup> Edition,**  
**McGraw Hill, 9780078035159.**

**Exams (250 points):** Two exams worth 125 points each will be given. Each exam will contain an in-class, closed-book part, and an open-book, take-home part.

**Exam Schedule:**

Exam 1            Class Meeting 5

Exam 2            Class Meeting 10

**Critique #1 (50 points):** Both a written and a verbal critique of a research article using a correlational design will be required. These critiques will follow specific guidelines given in class. The article selected will be of the student's choice **but prior approval for your selected article must be obtained from the instructor by week three of class.** The written critique will be worth 30 points and the verbal critique will be worth 20 points.

**Critique #2 (50 points):** Both a written and a verbal critique of a research article using an experimental design will be required. These critiques will follow specific guidelines given in class. The article selected will be of the student's choice **but prior approval for your selected article must be obtained from the instructor by week seven of class.**

The written critique will be worth 30 points and the verbal critique will be worth 20 points.

**Research Proposal (50 points):** A brief, written research proposal will be required. This proposal may involve either an experimental or a correlational design, **but must be each individual students' own, original work.** You may consult with your professor in developing your research proposal. An oral presentation and defense of this proposal will be required. The written proposal will be worth 40 points and the verbal presentation/defense will be worth 10 points. **Your research proposal will be due by week nine of class.**

**Participation:** Your participation in class is important. You must read the assignments before class and be prepared to apply them within various research contexts. Your critiques of other students' research ideas and proposals will be very valuable both to you and to them. You will be expected to complete statistical problems in class and as part of homework assignments. You will need a calculator capable of the following operations: addition, subtraction, multiplication, division, squares, and square roots. In addition, you will be expected to be able to recognize basic statistical symbols and to analyze data sets using basic statistical formulas.

**Grading Scale:**

372-400 = A 360-371 = A-

348-359 = B+ 320-347 = B

300-319 = B- Below 300 = C

**Learning Objective**

**Measurable Outcome**

Students will learn to distinguish research from other sources of information (theory, opinion, or anecdote).	Students will synthesize the content presented in lecture and be asked to generate their own criteria for analytic and critical research evaluations
Students will be able to evaluate critically the quality and importance of a research report as well as its statistical analyses.	Students will demonstrate understanding of key principles of research design by applying them to select research reports.
Students will learn how research can benefit them in their counseling practice and career.	Students will demonstrate their understanding of how research can help them in the development of their professional skills by discussion and examination.

**Background Assignments:**

**Before starting HDCN 6349: Research Design and Statistics, please read Cozby & Bates, Chapters 12-13, and Appendices A & B. This course requires the preparation and oral presentation/defense of a brief, written research proposal in APA Format (Appendix A) as well as a familiarity with basic mathematical calculations and statistical symbols (Chapters 12-13, Appendix B). We will not be having a class meeting during the first week of classes, so you will have plenty of time to review this assignment. We will schedule a make-up class later in the quarter to replace the class we will miss on Tuesday, October 22<sup>nd</sup>.**

**Tentative Schedule:**

Class            Topic

**COZBY/BATES CHAPTER ASSIGNMENTS**

One\*            Scientific Approach, Library Research, & Research Ethics

Z-scores, Normal Distribution, Hypothesis Testing

**Cozby/Bates Chapters 1-3**

**\* Note: Our first class meeting will be on Tuesday, October 29<sup>th</sup>.**

Two            Reliability, Validity, Non Experimental Research

Correlations

**Cozby/Bates Chapters 4-5**

Three           Sampling, Questionnaires, Interviews

Chi Square, 2-way Chi Square

**Cozby/Bates Chapters 6-7**

Four           Correlational Study Reports

Five            **EXAM 1**

**Cozby/Bates Chapters 1-7**

Six            Experimental Design

t-tests, ANOVA

**Cozby/Bates Chapters 8-9**

Seven           Factorial Designs

Factorial ANOVAs

**Cozby/Bates Chapters 10**

Eight	Single Case, Developmental, Quasi-Experimental Designs Visual Analyses  <b>Cozby/Bates Chapters 11</b>
Nine	Experimental Research Reports
Ten	<b>EXAM 2</b>  <b>Cozby/Bates Chapters 8-12</b>

### **Tentative Schedule for Statistics Lectures and Labs:**

Typically, statistical presentations and labs will be coordinated with the lectures on research design. This will help vary the class format across the class period.

### **Departmental and University Policies:**

#### *Statement on Attendance:*

- *Instructors should be given 24 hours' notice of any absence whenever possible*
- *If a student must miss one class, it is the student's responsibility to contact a classmate to get all material and assignments covered during their absence.*
- *A student's final grade will be impacted if two absences occur.*
- *A student missing more than two classes may, at the instructor's discretion:*
  - *receive a grade of Incomplete if the requirements to do so have been met (see the policy on Grades of Incomplete contained in this syllabus)*
  - *receive a failing grade for the course*
  - *drop or withdraw from the course. (This option may have a financial and/or financial aid impact. Student should refer to the Add/Drop Policy and the Withdrawal Policy for the Counseling program which can be found at <http://www.smu.edu/Simmons/AreasOfStudy/DRC/C/Counseling/AcademicCalendar13-14> then consult with the Program Specialist if they believe this option is a possibility.)*

Statement on Class Decorum - Please turn off (or set on vibrate) all cell phones or pagers. Please do not read newspapers, books for other classes, or other outside reading material during class, or use laptops for non-class related activities during class. Walking into class late is disruptive, as is leaving early, so please avoid this whenever possible. If you have to leave early, make arrangements before class begins, and when you leave, please do so quietly. Professional respect and courtesy for your fellow students is expected at all times.

Disability Accommodations - Students needing academic accommodations for a disability must first contact Disability Accommodations & Success Strategies (DASS) at 214-768-1470 or [www.smu.edu/alec/dass.asp](http://www.smu.edu/alec/dass.asp) to verify the disability and to establish eligibility for accommodations. They should then schedule an appointment with the professor to make appropriate arrangements. (See University Policy No. 2.4; an attachment describes the DASS procedures and relocated office.)

Religious observance - Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. (See university Policy No. 1.9)

Excused Absences for University Extracurricular Activities - Students participating in an officially sanctioned, scheduled university extracurricular activity will be given the opportunity to make up class assignments or other graded assignments missed as result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (University Undergraduate Catalogue)

Grade of Incomplete - A student may receive a grade of I (Incomplete) if at least 50 percent of the course requirements have been completed with passing grades, but for some justifiable reason, acceptable to the instructor, the student has been unable to complete the full requirements of the course. At the time a grade of I is given, the instructor must stipulate in writing to the student and to the University registrar the requirements and completion date that are to be met and the grade that will be given if the requirements are not met by the completion date. The maximum period of time allowed to clear the Incomplete grade normally is 12 months. If the Incomplete grade is not cleared by the date set by

*the instructor or by the end of the 12-month Policies and Procedures 25 deadline, the grade of I will be changed to the grade provided by the instructor at the time the Incomplete grade was assigned or to a grade of F if no alternate grade was provided. The grade of I is not given in lieu of a grade of F or W, or other grade, each of which is prescribed for other specific circumstances.*

*If the student's work is incomplete, poor quality and not acceptable, a grade of F will be given. The grade of I does not authorize a student to attend the course during a later term. Graduation candidates must clear all Incomplete grades prior to the deadline in the Official University Calendar, which may allow less time than 12 months. Failure to do so can result in removal from the degree candidacy list and/or conversion of the grade of I to the grade indicated by the instructor at the time the grade of I was given.*

*For graduate students, a maximum of two (six hours) concurrently held grades of Incomplete in courses other than thesis is allowed. If this maximum is reached, the student will be allowed to take only one three-hour course per term until the Incomplete total is reduced. Students who accumulate a total of three grades of Incomplete in courses other than thesis will be put on probation and not allowed to enroll further until the total is reduced.*

*SMU Fall 2009 Emergency Preparedness Syllabus Insert - As part of the federal government response to the H1N1 (Swine Flu) virus, the Department of Health and Human Services issued a nationwide public health emergency preparedness declaration on April 26, 2009. The declaration was renewed on July 23, 2009 and is currently in force. For the semester ahead, there is concern that the level and intensity of flu cases could increase substantially.*

- 1. For updates on the campus-wide status of flu conditions at SMU, please visit <http://www.smu.edu>.*
- 2. If flu conditions require cancellation of a class session or other changes for this course, an email will be sent to all class members.*
- 3. In the event of a major campus emergency at SMU, course requirements, deadlines, and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances beyond the instructor's control.*

*Statement on Academic Integrity - Students are reminded of the SMU Honor Code as referenced in the Student Handbook. Intellectual integrity and academic honesty are both the foundation and the goals for this*

*program. Please reference and review the university policies on the responsibilities, policies, and penalties regarding academic honesty found at:*

[http://www.smu.edu/studentlife/PCL\\_05\\_HC.asp](http://www.smu.edu/studentlife/PCL_05_HC.asp)

*Statement on APA Guidelines - Students are expected to have a high degree of familiarity with the APA manual and its requirements. Plagiarism is plagiarism, whether intentional or not. To avoid plagiarism, follow guidelines in the current edition of the APA Publication Manual. Some general guidelines from the 2001 5<sup>th</sup> edition include:*

- Always cite the source of a quote or paraphrase (pp. 120 & 349)
- When quoting:
  - o Copy the original material word-for-word (p. 117)
  - o If a quotation is less than 40 words, place quotation marks around it; if it is 40 or more words, indent the quote as a block. Double space all text (p. 117)
  - o Follow the conclusion of a quotation immediately with the citation of author(s), year of publication – or year of creation if original material is unpublished, and page number(s) (p. 120)
- When paraphrasing:
  - o Restate concepts in *substantially different words* than the original material (p. 349)
  - o Immediately after paraphrased material, cite author(s), year, and, whenever possible, page number(s) (pp. 121 & 349)
  - o In addition, according to Pan (2003), if paraphrased material extends to multiple paragraphs, be sure to cite the source in *each* paragraph (pp. 61-62).

*The term ‘plagiarism’ includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. Plagiarism also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials. A faculty member can assign specific penalties. Penalties can include reducing or changing a grade or issuing a failing grade for an assignment/test or for the entire course and/or expulsion from the academic program and the university. A student penalized for academic misconduct has the right of appeal. SMU counseling program students should be prepared to submit papers and other written work electronically so that the instructor can use anti-plagiarism software to validate the originality of the student’s work. Students also have access to these plagiarism prevention tools and are strongly encouraged to utilize these resources.*

*Statement on Confidentiality and Emotional Safety - In order to provide a safe learning environment for students in the class and to protect the confidentiality of practice clients and class members, students will discuss case material and other’s personal information, reactions, etc.*

*only while in class or privately with other current class members. It is the responsibility of each class member to treat classmates with respect and integrity, thus providing emotional safety for each other during class activities. All students in the Counseling Department will demonstrate behavior that is consistent with the Ethical Standards forwarded by the APA and ACA in their code of ethics. Failure to do so can result in termination from the Department.*

FOOD - You are welcome to bring your own lunches, snacks, and drinks and consume as needed. Please clean your area when class is over.