

**The University of Texas at El Paso**  
**College of Health Sciences**  
**Clinical Laboratory Science Program**  
**Clinical Investigation (CLSC 4274)**  
**Fall 2009**

**Instructor:**

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**Lectures:** (Attendance required) Friday, 10:00 am. – 12:00 p.m.

**Office hours:** Friday, 9:00 – 10:00 am.

**Textbook:** **Exploring research, 5<sup>th</sup> ed.**  
Authors: Salkind N.  
Publisher: Prentice Hall Publishing

**Course Description:**

This course is designed to introduce CLS students to the fundamental processes of conducting research in the health sciences. This course serves as an introduction to the basic aspects of reading, evaluating and writing research as well as overview of various methods and tools used in health science research. The lectures will cover various topics including selecting appropriate research papers to review, writing scientific summary, analyzing and presenting information in research papers. By the end of the course students are expected to perform an independent health related research project, write it in a research paper format and present it to their fellow students in class.

**Course Objectives:**

Upon completion of this course the students are expected to be able to:

1. Plan and evaluate research, which includes selecting a problem, locating and using appropriate references, critiquing and summarizing research studies, and using appropriate referencing format.
2. Plan and carry out analysis for descriptive data, differences between or among groups, and relationship among variable.
3. Interpret statistical analysis, tables, and summaries typically presented in research studies.
4. Design and interpret analytical, descriptive and experimental research.
5. Understand basic measurement concepts such as validity, reliability and objectivity, scales of measurement, field tests and laboratory tests.
6. Use written and verbal forms for research reporting.

### **Course overview:**

- This class will be a combination of a lecture and discussion format. Students are expected to read the chapters from their textbook related to the topic that will be discussed in class, and they should come to class prepared to participate in active discussion related to this topic.
- There will be two tests during the semester covering material discussed in lecture.
- Various assignments may be given during the semester to practice research skills and publication tolls.
- Students are expected to use the research tools and methods they are mastering in class to carry out an independent research project. The results of the students' research projects should be submitted in a research paper format and should also be presented to class. Details about students' research projects will be discussed in details during the first week of classes.

### **Grading Policy:**

Tests	30 %
Assignments	10 %
Research paper	30 %
Research presentation	30 %

### **Grading Scale:**

90 - 100	A
80 - 89	B
75 - 79	C
< 75	F

**Class Calendar:**

<b>Lecture</b>	<b>Topic</b>
1	Introduction; The Scientific Method
2	Research Planning
3	Research Design
<b>4</b>	<b>Test # 1</b>
5	Data Collection
6	Descriptive Statistics; Inferential Statistics
7	Dissemination and Critical Evaluation of Research
<b>8</b>	<b>Test # 2</b>
9	Student presentations
10	Student presentations
11	Student presentations
12	Student presentations
13	Student presentations
14	Student presentations