



THE UNIVERSITY OF TEXAS AT EL PASO

College of Education
Educational Psychology and Special Services

**EDPC 5310 (Section 1): Applied Research Design for Educators
(Special Ed. & Ed. Diag. Majors)**

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Office Hours: Online Wednesday 2:00 – 4:30; on campus Thursday 1:30 – 4:00; or by appt.
Required Text: Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2014). *How to Design and Evaluate Research in Education* (9th ed.). New York: McGraw-Hill.
Recommended Text: American Psychological Association (2010). *Publication Manual of the American Psychological Association* (6th ed.). Washington, D.C.: American Psychological Association.
Required Supplemental Readings: Research articles to be assigned (TBA)

Course Overview

This course introduces students to research methods used in educational and community settings that serve diverse populations. Emphasis will be placed on understanding the nature of research, the research process, and various quantitative and qualitative research methodologies so that students can read, use and design research to address educational and community problems and program needs.

Course Objectives

1. Understand the importance of research in advancing the special education profession, including its use to inform evidence-based practice
2. Identify and describe special education-related educational problems
3. Formulate educational research questions
4. Understand the steps of planning and conducting an educational research study
5. Conduct a brief literature review in order to identify and review credible sources informing an educational problem
6. Understand and identify the types and roles of variables, hypotheses, and sampling procedures in educational research
7. Understand qualitative, quantitative and mixed research methods and designs and when they are used

8. Understand basic statistical methods used in educational research
9. Interpret basic statistical data and results in educational research
10. Understand ethical issues and practices in conducting, interpreting, and reporting results of educational research
11. Explain the importance of validity, reliability, and scales of measurement in reading and conducting educational research

Because this is a graduate course of study leading to an advanced academic degree, I have high expectations for you. Likewise, you should have high expectations for me. Our behavior in the class reflects our professional attitudes about education as a profession. This class will be taught in a hybrid format, so these expectations include behavior both in class and online.

I expect the following of students:

- Time management: This is a time-intensive and content-intensive class. The rule of thumb for studying in graduate courses is approximately three (3) hours for every credit hour taken. This is a standard figure recommended for graduate school by American universities. This means that for every hour we meet on campus, you should expect to devote up to 3 hours out of class to written assignments and preparing for class. For online weeks, you should expect to devote up to 12 hours on written assignments and preparing for the next week's class. You may not always need to devote this amount of time but you should be prepared to do so if necessary to be successful in this class.
- Regular attendance at on-campus classes. Much of our learning will be done in the interactive, collaborative setting of the class. If someone is not here, it affects the learning of everyone in the class. If you must miss class due to professional reasons, please provide documentation ahead of time. If you know ahead of time that you must miss more than one class due to professional or personal reasons, you should plan to take the class in a subsequent semester. If you must miss class due to unexpected emergencies, please notify the instructor with documentation as soon as possible.
- Careful preparation for class. Because our time together is limited, it is essential that you come to class prepared. This means that you should read and reflect on assigned materials before class in order to be thoroughly prepared to discuss them. Details on requirements are provided in the course timeline and course modules.
- Bring textbook and research articles to every class. In-class activities require having these available in order to actively participate; therefore they are a part of attendance and participation. *If you are unable to print or download assigned articles to a hand-held device, please notify the instructor in advance and I will make a copy available.*
- Active participation in face-to-face and online activities based on thorough preparation, thoughtful contributions, and respectful support of your colleagues' learning.

- Make regular use of the Blackboard site for this class as it will be our primary means of communication outside of class, and for learning when we are online. You should plan to check Blackboard several times weekly for announcements and Blackboard emails.
- On-time completion and submission of all assigned activities and assignments.
- Assignments will be submitted electronically through Blackboard before the due dates. Late assignments will be penalized one letter grade for each day they are late, unless prior arrangements have been made with the instructor. In order to make sure that you receive credit, it is strongly recommended that you do not wait until the last minute to submit assignments through Blackboard in case it goes down or you lose power unexpectedly. In the unlikely event that Blackboard is down when you are submitting an assignment, you should send it to me via UTEP email. However, you are still required to submit it through Blackboard when it becomes available.

Students should expect the following of me:

- Careful and thorough planning and preparation in support of your learning for classes and online activities.
- Feedback on assignments will usually be returned to you within one week of due date, barring unforeseen circumstances.
- Timely out-of-class communication, which will usually consist of Blackboard email correspondence since it is the most efficient and convenient method of communication. I will make every effort to respond to messages 2-4 times daily Monday through Friday and within 24 hours on weekends. I will also be available for office hours and for personal and phone conferences by appointment. Use UTEP email only if Blackboard is down.
- Modeling effective teaching practices and professionalism.

Course Requirements

Attendance and Participation

I expect each of you to make every effort to attend all class meetings and participate actively in learning activities. Attendance and participation include the following: arriving to class on time, staying for the entire class, reading assigned chapters in the textbook and research articles before coming to class, bringing textbook and research articles to class, and actively participating in learning activities. Lack of any of these elements of attendance and participation without making prior arrangements will constitute an unexcused absence. I acknowledge that your obligation to this class will be superimposed on family and professional responsibilities. However, absence, lack of punctuality, or lack of preparation, does not excuse any of us from our obligations to our own learning and to the learning of others. Completion of this course constitutes partial fulfillment of the requirements for an advanced academic degree and professional certification. I expect that absence, late arrival, or early departure will be handled professionally. As a

professional courtesy, the instructor should be contacted before class whenever possible.

Attendance, on-time submission of assigned introductory activities, practice quizzes, active participation, and completion of in-class activities will be credited 5 points per class or online week.

Practice Quizzes

For most chapters in the textbook, there will be one to three practice quizzes on Blackboard. You will not be graded based on your scores on these quizzes, but on-time completion of the quizzes will earn your attendance/participation points for each online week. Practice quizzes for weeks when we meet on campus are optional, but it is strongly recommended that you complete them because it will help you check your understanding of important concepts and it will also help you review for the exams. You will see your scores on these quizzes in your Blackboard grade center but they are not part of your calculated grade; completion of practice quizzes counts toward your attendance/participation points for online weeks.

Research Project (Parts 1, 2, and 3)

Because this course fulfills requirements leading to a professional degree in education, the written assignments are designed to give you authentic experiences in planning major phases of reading and designing educational research. They are sequenced to walk you through important steps of the research process to design a research study on an educational problem of interest to you. Each assignment is worth 40 points and will be graded using rubrics that spell out point values for each component of the assignment. In order to be as authentic as possible, you will have the option to complete these individually or in groups of up to four members, since research is nearly always, but not necessarily, a collaborative enterprise. Parts 1 and 2 can be revised based on my feedback to earn back points.

Exams

In addition to written assignments, there will be two open book online exams worth 40 points each. These exams are designed to assess your ability to understand and apply important research concepts and to help you prepare for professional exams. In addition to the exams, you will complete selected modules from the CITI IRB training for ethics in research and protection of human subjects. There is one brief quiz for each IRB module, for a total of 20 points. Performance on the IRB quizzes will be documented by submitting a screen capture of the modules completed, including the quiz scores and your name. These IRB quizzes may be retaken to improve your score, but the documentation for completion must be submitted by the due date. It is recommended, therefore, that you complete this training early so that you may retake the quizzes if you choose.

Research Article Discussions

An important goal of this class is developing skills in reading research articles. In order to facilitate this goal, part of our learning will involve in-class discussions about research articles.

You will be assigned to groups of approximately four students to conduct these discussions in class. In order to ensure that everyone is prepared for the discussion, you will be required to post online responses to specific questions concerning each assigned research article. These will be due the evening before the in-class discussions take place. Specific instructions and due dates for the discussions will be provided. Online responses will count toward additional weekly attendance/ participation points.

Learning Modules

For most of the chapters in the textbook, I have prepared learning modules to facilitate your learning. These modules include a summary of the most important topics in each chapter, offer examples of research concepts, and include YouTube videos to illustrate many of the important concepts. Although the modules do not include required assignments or quizzes, it is strongly recommended that you take advantage of these learning materials to help supplement your learning in the course. Please note that they do not replace reading the chapters which contain more detailed information.

Following is a listing of the course requirements and point values:

Assignment	Points Possible
Week 1 Tasks	20
Research Project Part 1	40
Research Project Part 2	40
Research Project Part 3	40
IRB training (documented with screen capture of module completion)	20
Exams (2 @ 40 points each)	80
Online responses to research article questions (3 wks @ 5 points each)	15
Participation/attendance/practice quizzes (15 wks @ 5 points each)	<u>75</u>
Total Points	330

Grading

Grading rubrics will be provided for each required written assignment. Letter grades will be assigned using the following scale:

- A = 90% to 100%
- B = 80% to 89%
- C = 70% to 79%
- D = 60% to 69%
- F = 59% and below

IMPORTANT NOTE ABOUT GRADES: You will be able to see your grades in Blackboard. However, it is the responsibility of each student to monitor your own grades and bring any concerns to the attention of the instructor. Unfortunately there are occasional glitches in the grade center in Blackboard, but I can only correct them if I am made aware of them. It is also the responsibility of the student to contact the instructor if there are concerns about performance in

the class. This must be done early enough in the semester so that a plan for improvement can be put into place. If you wait until the end of the semester, it is too late. Although there may be occasional opportunities during the semester for all students to earn extra credit points, no such opportunity will be offered to individual students at any time.

Students with Disabilities

The university is committed to the principle that in no aspect of its programs shall there be differences in the treatment of persons because of race, creed, national origin, age, sex, or disability, and that equal opportunity and access to facilities shall be available to all. If you require special accommodations, please provide documentation to the Center for Accommodations and Support Services (CASS).

UTEP Policy on Academic Integrity

Academic dishonesty is prohibited and is considered a violation of the UTEP Handbook of Operating Procedures. It includes, but is not limited to, cheating, plagiarism, and collusion. Cheating may involve copying from or providing information to another student, possessing unauthorized materials during a test, or falsifying research data on laboratory reports. Plagiarism occurs when someone intentionally or knowingly represents the words or ideas of another person's as ones' own. And, collusion involves collaborating with another person to commit any academically dishonest act. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be taken seriously and will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Academic dishonesty is an assault upon the basic integrity and meaning of a University. Cheating, plagiarism, and collusion in dishonest activities are serious acts which erode the University's educational and research roles and cheapen the learning experience not only for the perpetrators, but also for the entire community. It is expected that UTEP students will understand and subscribe to the ideal of academic integrity and that they will be willing to bear individual responsibility for their work. Materials (written or otherwise) submitted to fulfill academic requirements must represent a student's own efforts. Any act of academic dishonesty attempted by a UTEP student is unacceptable and will not be tolerated. Violations will be referred to the Dean of Students Office for possible disciplinary action. Students may be suspended or expelled from UTEP for such actions.

Policy on cell phones, tablets, etc.

Please respect the instructor and your peers by turning off your cell phones and beepers upon entering our classroom, unless you have notified me at the beginning of class that you have a critical family situation about which you must be notified. This should constitute only emergencies. Also, refrain from bringing anything to class that rings, buzzes, beeps, or otherwise makes a distracting noise. Text messaging or use of any other technology for anything other than note-taking or classroom learning activities (e.g. research article discussions) are also not permitted.

Tentative Course Schedule

Date	Topic	Reading assignments, tasks, and practice quizzes due (check BB for specifics on assignments and due dates/ times)	Graded Written Papers/ Exams
Week 1: 1/17-18 Online	Introduction to the Course Syllabus What is Educational Research? <ul style="list-style-type: none"> • What are the purposes of educational research? • What is the scientific method in education and psychology? • What is the nature of educational and psychological research in schools, classrooms, and communities? 	Obtain textbook Read syllabus Send syllabus BB email to instructor (due 1/18; no later than 1/22) Post introductory message on BB discussion board (due 1/18; no later than 1/22) Complete Week 1 activities (see due dates in Blackboard)	
Week 2: 1/19 – 1/25 Meet on campus 1/25	Basics of Research, Part 1: Planning research and selecting a research problem Basics of Research, Part 2: Searching for research literature	Read FWH Ch. 1-2 Skim FWH Ch. 3 Completion of optional practice quizzes recommended	
Week 3: 1/26 – 2/1 Online	Basics of Research, Part 3: Variables, Hypotheses, and Sampling <ul style="list-style-type: none"> • Independent and dependent variables • Operational definitions of psychological and educational variables • Forms of hypotheses: Hypotheses versus research questions • Populations and samples: Probability and non-probability sampling procedures 	Read FWH Ch. 5-6 Read handout on plagiarism Complete learning modules Complete practice quizzes on BB by Wednesday 2/1 at 11:59 PM	Begin working on Research Project Part 1
Week 4: 2/2 – 2/8 Meet on campus 2/8	Basics of Research, Parts 1-3: Review and application Research article discussion	Review FWH Ch. 1-2, 5-6 Read research article in preparation for in-class article discussion Post answers to research article questions by <u>Tuesday, 2/7 at 11:59 PM</u>	
Week 5:	Basics of Research, Part 4: Measuring	Skim FWH Ch. 7	Research

2/9 – 2/15 online	Variables in Educational Research <ul style="list-style-type: none"> • Validity and reliability of measures • Scales of measurement • Internal validity 	Read FWH Ch. 8-9 Complete learning modules Complete practice quizzes on BB by Wednesday 2/15	Project Part 1 due Wednesday 2/15 at 11:59 PM
Week 6: 2/16– 2/22 Meet on campus 2/22	The Basics of Research, Part 4: Review and application	Review FWH 8-9	Begin working on Research Project Part 2
Week 7: 2/23 – 3/1 Meet on campus 3/1	The basics of research, Part 5: Statistical concepts for quantitative research <ul style="list-style-type: none"> • Descriptive statistics: Measures of central tendency and measures of variability – <i>Means and standard deviations</i> • Inferential statistics and hypothesis testing: <i>t-tests, ANOVA, chi-square tests</i> 	Read FWH Ch. 10-11 Complete learning modules Completion of optional practice quizzes recommended	Work on Research Project Part 2
Week 8: 3/2 – 3/8 Meet on campus 3/8	The basics of research, Part 5: Review and application <ul style="list-style-type: none"> • How to read and interpret the results section of a research report 	Review FWH Ch. 10-11 Read FWH Ch. 12 Completion of optional practice quizzes recommended	Review for mid-term exam Work on Research Project Part 2
Week 9: 3/9 – 3/12; 3/18 – 3/22 Online	Research methods 1: Quantitative research—experimental, single subject	Read FWH Ch.13 - 14 Review FWH Ch. 9 Complete learning modules Complete practice quizzes on BB by Wednesday 3/22 at 11:59 PM	Mid-term exam due Sunday 3/12 at 11:59 PM
Week 10: 3/23 – 3/29 Meet on campus 3/29	Review experimental and single subject research in special education	Review Ch. 13 - 14 Read research article in preparation for in-class article discussion Post answers to article questions by Tuesday, 3/28 at 11:59 PM	

<p>Week 11: 3/30 – 4/5</p> <p>Meet on campus 4/5</p>	<p>Research article discussion single subject</p> <p>Research methods 2: Correlational and causal comparative</p> <p>Introduction to Research methods 3: Qualitative research – observation and interviewing</p>	<p>Read FWH Ch. 15 – 16</p> <p>Complete learning modules</p> <p>Completion of optional practice quizzes recommended</p>	<p>Work on Research Project Part 2</p>
<p>Week 12: 4/6 – 4/12</p> <p>Online</p>	<p>Qualitative research</p>	<p>Read FWH Ch. 18-19</p> <p>Complete learning modules</p> <p>Complete practice quizzes on BB by Wednesday, 4/12</p> <p>Read research article in preparation for in-class article discussion</p> <p>Post answers to article questions by <u>Tuesday, 4/18 at 11:59 PM</u></p>	<p>Research Project Part 2 due Wednes- day 4/12</p>
<p>Week 13: 4/13 – 4/19</p> <p>Meet on campus 4/19</p>	<p>Research methods 4: Mixed methods and action research</p> <p>Research article discussion – qualitative/mixed methods</p>	<p>Read FWH Ch. 23-24</p> <p>Complete learning modules</p> <p>Completion of optional practice quizzes on BB recommended</p>	<p>Begin working on Research Project Part 3</p>
<p>Week 14: 4/20 – 4/26</p> <p>online</p>	<p>Ethics in Research: Protection of Human Subjects</p>	<p>Read FWH Ch. 4</p> <p>Read APA manual pp. 11-20</p> <p>Complete IRB CITI training modules by Wednesday, 4/26 at 11:59 PM</p>	<p>Complete required IRB CITI training modules; Work on Research Project Part 3</p>
<p>Week 15: 4/27 – 5/3</p> <p>Meet on campus 5/3</p>	<p>Review of Educational Research</p>	<p>Review Ch. 9, 13 – 19; 23-24</p>	<p>Work on Research Project Part 3</p>
<p>Finals Week</p>		<p>Research Project Part 3 due by Sunday 5/7 at 11:59 PM</p> <p>Final Exam due by Tuesday 5/9 at 11:59 PM</p>	