Syllabus: LTEC 5610

LTEC 5610: Analysis of Research in Educational Technology

University of North Texas
Online Course, 3 credits
Instructor: Dr Regina Kaplan-Rakowski

Course Instructor

Dr. Regina Kaplan-Rakowski
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Office Hours: By Appointment

Course Description

Interpretation, analysis, and synthesis of current research in educational technology for the purpose of integrating research methodology and application to educational environments.

Textbook(s)


Course Platform and Structure

This course uses Canvas (https://unt.instructure.com) as its main platform, although other media and tools may be incorporated based on class needs.

The course consists of six modules. Each module will be scheduled with a beginning and ending date, with multiple activities assigned and due within each module. All students will participate, collaborate, and progress together within each scheduled module.

- Module 1: Quantitative research, descriptive vs. inferential statistics
- Module 2: Correlations, reliability & validity, hypotheses, and probability
- Module 3: Significance, one-sample z-test, t-test, ANOVA
- Module 4: Qualitative research
- Module 5: Mixed methods research
- Module 6: Research critique
Online Synchronous Meetings

Although most course activities take place asynchronously, we may have several online synchronous meetings during the semester.

- Tentative Meeting Dates/Times are still to be determined.

Course Objectives

At the end of this course, students will be able to:

- Describe the characteristics of quantitative research.
- Differentiate between descriptive and inferential statistics.
- Describe different types of correlations.
- Describe scales of measurement.
- Explain different types of reliability and validity.
- Describe the difference between a sample and a population.
- Describe the difference between the null and research hypotheses.
- Describe the characteristics of the normal curve.
- Explain the concept of significance.
- Distinguish between Type 1 and Type II errors.
- Explain when the Z-test for one sample is appropriate to use.
- Decide when it is appropriate to use the t-test for independent samples.
- Decide when it is appropriate to use the t-test for dependent samples.
- Decide when it is appropriate to use ANOVA.
- Describe the characteristics of qualitative research.
- Explain the difference between quantitative and qualitative research.
- Describe mixed methods research.
- Critically analyze and evaluate research studies.

Assignments

Changes in the assignment requirements or due dates may be announced at later dates in Canvas (Announcements). Therefore, reading the course announcements is required. It is the student’s responsibility to keep up with these updates and to have all assignments ready on time.


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<th>Module</th>
<th>Assignments</th>
<th>Points</th>
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<td>Introduction</td>
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<td>Mod 1 Quiz</td>
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<td>5</td>
<td>Examples</td>
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<td>6</td>
<td>Research article critique</td>
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<td></td>
<td>Reflection</td>
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**Grading Scale**

A = 90 - 100% (450 – 500 points)
B = 80 - 89% (400– 449 points)
C = 70 - 79% (350– 399 points)
D = 60 – 69% (300 – 349 points)
F = Below 60% (below 299 points)

**Late Assignment Policy**

All course-related assignments are expected to be submitted on time. Special circumstances where a student is unable to submit work on time will be taken under consideration but only if prior arrangements with the instructor have been made, otherwise late work will receive zero points. **If you have a valid reason for missing assignment deadlines, please contact the instructor before the deadline**
Medical Emergencies

If you have a medical emergency that will prevent you from completing the course as scheduled, you MUST notify your instructor at the time of your medical problem. Requests for a grade of incomplete or to drop the course should come at the time of the medical emergency and must be supported by a letter from your physician indicating that your medical situation will NOT permit you to work at your computer in order to submit your assignments as scheduled.

Requests based on a medical emergency cannot be granted after the medical emergency except in the rarest cases when prior communication was not possible. All requests for a grade of incomplete must be initiated by the student and meet standard university policy as outlined in the Incomplete Grade Information section below.

Incomplete Grade Information

The department complies with university policy regarding the assignment of an Incomplete Grade in any course. Please see http://registrar.unt.edu/grades/incompletes for information.

Plagiarism

Under all circumstances, you are bound by the UNT policies on academic dishonesty and cheating. Any materials you have used or adapted must be fully credited and the original author and location fully cited. Any verified act of plagiarism, no matter how seemingly-small or inconsequential, will result in an F in the course (subject to appeal based on a finding of plagiarism) and possible additional sanctions by the University. The UNT Dean of Students requires official reporting of all instances of plagiarism.

All works submitted for credit must be original works created by the student uniquely for the class. Any exceptions to this (e.g., collaborative work or a variation of something submitted to another course) must be documented and approved by the instructor in advance. It is considered inappropriate and unethical, particularly at the graduate level, to make duplicate submissions of a single work for credit in multiple classes, unless specifically requested by the instructor. Work submitted at the graduate level is expected to demonstrate higher-order thinking skills and be of significantly higher quality than work produced at the undergraduate level. You are encouraged to become familiar with the university’s Student Standards of Academic Integrity policy: https://policy.unt.edu/policy/06-003

Of particular interest are the following terms:
Cheating – intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.

Plagiarism – the deliberate adoption or reproduction of ideas, words, or statements of another person or of oneself in a prior work as one’s own current work without acknowledgement.

Fabrication – intentional and unauthorized falsification or invention of any information or citation in an academic exercise.

Facilitating academic dishonesty – intentionally or knowingly helping or attempting to help another to violate a provision of the institutional code of academic integrity.

Copyright Notice:
Some or all of the materials on this course website may be protected by copyright. Federal copyright law prohibits the reproduction, distribution, public performance, or public display of copyrighted materials without the express and written permission of the copyright owner, unless fair use or another exemption under copyright law applies. Additional copyright information may be located at: http://copyright.unt.edu/content/unt-copyright-policies.

Course Participation

Students are expected to participate in all class activities and to submit assignments on time. If students have any problems with Canvas, they are to contact Student Helpdesk for assistance and the instructor immediately. Students are expected to conduct themselves professionally. Professionalism includes, but is not limited to, the following:
- Participating in class activities in a positive manner
- Turning in assignments on time
- Completing assignments without spelling and grammatical errors
- Treating class members and colleagues with respect

Network Etiquette
- Don't use all caps. It is the equivalent of screaming.
- Use clear subject lines.
- Don't use abbreviations or acronyms unless the entire class knows them.
- Be sensitive and reflective to what others are saying.
- Think before you hit the post (enter/reply) button.
- Don't flame - These are outbursts of extreme emotion or opinion.
- Don't use offensive language.
- Be forgiving. Anyone can make a mistake.
- Keep the dialog collegial and professional.
Electronic mail

A university-assigned student email account is the official means of communication with all students. Students are responsible for all information sent to them via this university-assigned email account. If a student chooses to forward their University email account or to use some other email account, he or she is still responsible for all information sent to the official UNT email account. The instructor will do her best to respond to students' emails within 48 hours during weekdays.

Students with Disabilities

University of North Texas recognizes its responsibility for creating an institutional climate in which students with disabilities can thrive. In accordance with university policy, if you have a documented disability and require accommodations to obtain equal access in this course, please contact the instructor at the beginning of the semester or when given an assignment for which an accommodation is required. Students with disabilities must verify their eligibility through the Office of Student Disability Services.