

# *Educational Leadership and Policy Studies*

**College of Education**  
PARTNERS for the  
**FUTURE**



**EDAD 6304: K-16 Quantitative Research Design &  
Methodology**

**Fall 2012**

## **Instructor Information:**

<b>Instructor:</b>	Dr. Maria Adamuti-Trache	<b>Phone:</b>	817-272-2109
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**Office Hours:** Monday, Wednesday & Thursday 2:30-5pm (please call or email before coming); or by arrangement.

## **Course Information:**

<b>Course Title:</b>	K-16 Quantitative Research Design & Methodology
<b>Course Number:</b>	EDAD 6304
<b>Semester:</b>	Fall 2012
<b>Course Location and Time:</b>	Room TH 216; Mondays 5-8pm

**Requirements:** Students must attend class on Monday nights, specifically for this course: August 27, September 10, 24; October 8, 22; November 5, 19; December 3. Students have to actively participate in Blackboard activities and discussions. For the weeks when no classes are scheduled, students are expected to arrange one-on-one meetings with the instructor in order to discuss their research proposals.

## **Catalog Description**

Advanced course that covers the logic of research methods and design with an emphasis on empirical and other quantitative methods, including designing, conducting, and analyzing research from multiple paradigms. Emphasis will be placed on the steps involved in the administration of a research project including the literature review, methodology, data collection and analysis, and presentation and publication in multiple media. State-of-the-art technology will be utilized.

## **Course Prerequisites:**

No prerequisites. Students must be formally admitted into the K-16 Educational Leadership PhD program.

### **Student Learning Outcomes:**

The course is designed to provide students with an overview of the research paradigms used in education as well as opportunities to apply specific research methods related to these paradigms. At the end of the course, students will demonstrate an understanding of the following aspects of contemporary social science research methodologies:

- 1) Research processes
- 2) Library and technology resources
- 3) Research ethics
- 4) Advantages and disadvantages of qualitative research
- 5) Advantages and disadvantages of quantitative research
- 6) Sampling methods
- 7) Reliability and validity
- 8) Descriptive studies
- 9) Correlational studies
- 10) Causal comparative research
- 11) Survey research methods
- 12) Experimental designs
- 13) Quasi-experimental designs
- 14) Scales of measurement
- 15) Determining the proper usage of statistical procedures

Course learning objectives will provide the tool for conducting research on issues relevant to school and post-secondary education, and will help the student explore research areas of interests and make decisions on the appropriate methods of investigation. We will focus on quantitative research design and methodologies. Teaching and learning will be approached within a K-16 (and beyond) perspective. The main goal of this course is to bring you one step closer to becoming educational researchers.

### **Textbook(s) and Materials:**

#### **Required Text**

Gall, M. D., Borg, W.R., & Gall, J.P. (2007). *Educational research: An introduction, 8/E*. White Plains, NY: Longman.

This textbook will be used as a central material for class discussion. Other resources will be made available, and students will be expected to search for various references to complete their assignments.

#### **Other course materials**

American Psychological Association (2009). *Publication Manual of the American Psychological Association* (6th ed.). Washington, DC: Author.

Vogt, P. (2005). *Dictionary of statistics & methodology : A nontechnical guide for the social sciences*. Thousand Oaks, CA: Sage. (note: the 1999 full text ebook edition is available for viewing from the UTA netLibrary collection)

**Tentative lecture/topic schedule**

Date	Weekly topic	Activities/Due dates			
		Assignments	Readings	Online (in-between classes)	Class
August 27	<p><u>Course Introduction</u>: Educational Research – An Overview K-16 system and individual life course perspective</p> <p><u>Planning a research study</u> The Research Process</p>		Ch. 1		Introduction, course overview, course expectations, research process
September 10	<p>a) <u>Ph.D. Student Fall Welcome Event</u> b) <u>Planning a research study</u> Reviewing the Literature APA Format</p>	<p>a) 5-6:30pm (University Club) b) 6:30 - 8pm My education pathway: How does it shape my interest in educational research? (500-750w) → <b>Sept 10</b></p>	b) Ch. 2 & 4	<p>b) 1. Identify research topics and questions (RQs) → Sept 11-21 2. Review literature (at least 5 references relevant to the research topic) → Sept 11-21 3. Share your research topic; form groups of 2-3 students with similar interests → by Sept 23</p>	<p>a) ELPS Department b) Outline of a quantitative or qualitative research proposal</p>
September 24	<p>Library Resources (guest speaker) <u>Research Methods</u> Select Statistical Techniques Quantitative Sampling Techniques Large-scale databases (1)</p>		Ch. 5-6 (selected parts)	Readings review and discussion → Sept 25-Oct 7	Discuss your RQs in class and small groups
October 8	<p><u>Research Methods</u> Methods of Data Collection Large-scale databases (2) Introduction to SPSS (lab session)</p>	<p><b>Step 1a:</b> Research topic, research questions, literature review (2000w) → <b>Oct 5 (feedback, not graded)</b> <b>Step 1b:</b> <b>Oct 15 (Assign 2-final)</b></p>	Ch. 7-9 (selected parts)	Readings review and discussion → Oct 9-21	Lab session
October 22	<p><u>Quantitative Research Design - Nonexperimental</u> Descriptive and Causal Comparative Design Correlational Design</p>	<p>Step 2a: Research design, methods, data (1500w) (first draft) → <b>Oct 29 (feedback, not graded)</b></p>	Ch. 10-11 (selected parts)	Readings review and discussion → Oct 23-Nov 4	Present your topic, share 1-2 journal articles; engage the class in discussion
November 5	<p><u>Quantitative Research Design - Experimental</u> Experimental Research Research Ethics The IRB Process (guest speaker)</p>	<p>Step 2b: Research design (revised based on instructor's feedback) → <b>Nov 12 (Assign 3-final)</b></p>	Ch. 12-13 (selected parts) Ch.3	Readings review and discussion → Nov 6-18	Present your topic, share 1-2 journal articles; engage the class in discussion
November 19	<p><u>Qualitative Research - brief review</u> Overview Case Study Research Historical Research</p>	<p>Step 3: Ethics, study limitations, significance (500-750w) → <b>Nov 26 (feedback, not graded)</b></p>	Ch. 14-16 (selected parts)	Readings review and discussion → Nov 20-Dec 2	Present your topic, share 1-2 journal articles; engage the class in discussion
December 3	<p>Mixed methods Course evaluation Further steps</p>	<p>Step 4: Assemble final research proposal (4500-5000w) → <b>Dec 10 (Assign 4 -final)</b></p>	Review; Questions		<p>Prepare final proposal Present your topic, share 1-2 journal articles; engage the class in discussion</p>

### **Grade Calculation:**

<u>Activity</u>	<u>% of final grade</u>
Attendance/Participation in class discussions	10%
Weekly online discussions (Sept 11-Dec 2)	15%
Proposal presentation (various stages)	10%
Assignment 1: My education pathway (Sept 10)	10%
Assignment 2: Research topic/questions and framework - Final (Oct 15)	20%
Assignment 3: Methods of inquiry - Final (Nov 12)	20%
Assignment 4: Final research proposal (Dec 10)	15%

Online activities will help students with the readings, literature search, research questions.

At the end of the semester you will be given an opportunity to evaluate course contents and the quality of instruction provided.

### **Email Communication:**

UTA e-mail will be considered the official means of communication between the university and students. Utilize your UTA e-mail for all communications. You are responsible if you do not receive information because you do not regularly check your UTA email.

**Attendance Policy:** Regular and prompt attendance is expected. As doctoral students, you understand the importance of participation in class discussion, including participation in Blackboard activities which continue the discussion of topics covered in class. When you miss taking part in these discussions, we lose out on hearing your ideas and you miss out on hearing ours.

**Course Late-Work Policy:** If you are unable to submit a paper the evening it is due, your paper will receive a 1-point deduction every day it is late (e.g., assignment 1 will receive maximum 9 points if received next day). Please contact the instructor to discuss any issue related to your assignment's submission.

### **Grading Policy:**

- A = 90-100
- B = 80-89
- C = 70-79
- D = 60-69
- F = 0-59

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center. Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. **Students will not be automatically dropped for non-attendance.** Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://www.uta.edu/ses/fao>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the *Americans with Disabilities Act (ADA)*. All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Academic Integrity:** All students enrolled in this course are expected to adhere to the UT Arlington Honor Code:

*I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence.*

*I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code.*

Instructors may employ the Honor Code as they see fit in their courses, including (but not limited to) having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. Per UT System *Regents' Rule* 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

**Student Support Services:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

**Electronic Communication:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week *unless specified in the class syllabus*. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Librarian to Contact:** Our research librarian is  
Andy Herzog, MLS  
Reference/Instruction Librarian  
Central Library, Rm. 313  
University of Texas at Arlington  
[amherzog@uta.edu](mailto:amherzog@uta.edu)  
<http://libguides.uta.edu/profile.php?uid=33755>  
817.272.7517

**University Mission:**

*The mission of The University of Texas at Arlington is to pursue knowledge, truth and excellence in a student-centered academic community characterized by shared values, unity of purpose, diversity of opinion, mutual respect and social responsibility. The University is committed to lifelong learning through its academic and continuing education programs, to discovering new knowledge through research and to enhancing its position as a comprehensive educational institution with bachelor's, master's, doctoral and non-degree continuing education programs.*

**College Mission:**

*The mission of the UTA College of Education is to develop and deliver educational programs that ensure the highest levels of teacher, administrator, and allied health science practitioner preparation and performance. As a recognized contributor to the fields of education and allied health science, the College engages in effective teaching, quality research, and meaningful service. The College is committed to diversity and to the advancement of active teaching and learning in all educational environments and at all levels.*

Core Values:

Excellence	Student-Centered Environments,
Research	Collaboration
Diversity	Technology
Field Experiences	Life-Long Learning

## Conceptual Framework:

The work of the College of Education is grounded in constructivism as a theory of teaching and learning and is done in a spirit of expectation that all involved in the College of Education, whether candidate, faculty or administrator, will hold the following as important: **Excellence, Student-Centered Environments, Research, Collaboration, Diversity, Technology, Field Experiences and Life-Long Learning.**

Partners for the Future serves as the theme of the College of Education and epitomizes the understanding that it takes a village of partners to insure the future of education for all.

In 2011, the Library migrated its website to the University's content management system. As a result the Library's website address changed from <http://library.uta.edu> to <http://www.uta.edu/library>. Although the library staff instituted a series of automatic redirects, many syllabuses and online courses have deep links into the Library's website that will no longer work.

Unfortunately a simple "find & replace" function won't solve the problem of updating these links. Instructors will need to manually locate the places in each syllabus and course webpage where they link to the Library and update the URLs (as they appear on the new site). If you need help doing this, both [Center for Distance Education](#) staff and the [Subject Librarian](#) for your area can help you.

This is a page where we have gathered many commonly used resources needed by students in online courses:

<http://www.uta.edu/library/services/distance.php>

The following is a list of commonly used library resources:

Library Home Page .....	<a href="http://www.uta.edu/library">http://www.uta.edu/library</a>
Subject Guides.....	<a href="http://libguides.uta.edu">http://libguides.uta.edu</a>
Subject Librarians .....	<a href="http://www-test.uta.edu/library/help/subject-librarians.php">http://www-test.uta.edu/library/help/subject-librarians.php</a>
Database List.....	<a href="http://www-test.uta.edu/library/databases/index.php">http://www-test.uta.edu/library/databases/index.php</a>
Course Reserves .....	<a href="http://pulse.uta.edu/vwebv/enterCourseReserve.do">http://pulse.uta.edu/vwebv/enterCourseReserve.do</a>
Library Catalog.....	<a href="http://discover.uta.edu/">http://discover.uta.edu/</a>
E-Journals.....	<a href="http://utalink.uta.edu:9003/UTAlink/az">http://utalink.uta.edu:9003/UTAlink/az</a>
Library Tutorials .....	<a href="http://www.uta.edu/library/help/tutorials.php">http://www.uta.edu/library/help/tutorials.php</a>
Connecting from Off- Campus....	<a href="http://libguides.uta.edu/offcampus">http://libguides.uta.edu/offcampus</a>
Ask A Librarian.....	<a href="http://ask.uta.edu">http://ask.uta.edu</a>

Finally, the subject librarian for your area can work with you to build a customized course page to support your class if you wish. For examples, visit <http://libguides.uta.edu/os> and <http://libguides.uta.edu/policyissues>. If you have any questions, please feel free to contact the Coordinator for Information Services, Suzanne Beckett, at [sbeckett@uta.edu](mailto:sbeckett@uta.edu) or at 817.272.0923.