



THE UNIVERSITY OF TEXAS AT EL PASO
COLLEGE OF SCIENCE
DEPARTMENT OF MATHEMATICAL SCIENCES
¡BIENVENIDOS (WELCOME)!

note: From the top of <http://www.math.utep.edu/Faculty/lesser/schedule.html> or our Bb course shell, you can access this syllabus if you misplace yours, want to explore its links, or see any updates to it. Syllabus is subject to change by instructor to meet course needs, especially if there are unexpected disruptions or changes in class size, resources, UTEP deadlines/policies, etc.

Course Number: MATH 5396-003 (CRN 27768)
Course Title: Graduate Research (in Mathematics Education)
Credit Hours: 3
Term: Spring 2018
Prerequisite: Departmental Approval
Course Fee: none

Course Meetings & Location: we will have a virtual group meeting each Monday at 5pm (except March 12, of course); while the ending time could go as late as 6:20pm, there will be days in which the natural end of the class will be earlier; other time will be available (that day or other days) for individual conversations as needed, for questions that are not resolved during the group meeting time. For the finals week meeting (which UTEP scheduled for 4-6:45pm Monday, May 7) and/or the date of paper presentations, we will decide as a class whether to do this in person (at UTEP) or virtually.

Instructor: Dr. Larry Lesser. See background at <http://www.math.utep.edu/Faculty/lesser/> or hear my introductory rap at <https://www.youtube.com/watch?v=sFizdFK0918>

Office Location: Bell Hall 213
Contact Info: Phone: (915) 747-6845

Email **Lesser (at) utep.edu** (please have the subject line include: 5396)
emailing me from your miners.utep.edu address is better because it provides more security and minimizes the chance of the UTEP server rejecting it

Homepage: <http://www.math.utep.edu/Faculty/lesser/>

Fax: (915) 747-6502 (note: this is a math department fax, so be sure to have my name clearly on it; be aware that staff are not available to relay faxes to me outside the math dept's hours of M-F 8-12, 1-5)

Emergency Contact: (915) 747-5761 (during math dept office hours)

Office hours: the hour before each class (and by appointment), and this may be in person or virtual; additional office hours or changes will be announced or posted later; you are

also welcome to try stopping by or emailing anytime for easy questions; for questions requiring live conversation, just email me several possible times that would work and I will reply with which option works in my schedule.

Textbook: no new textbook is required to purchase; we will sometimes refer to materials from MATM 5360, 5361, 5364 courses, and other materials may be identified that are freely available online, through the UTEP library, or in our Blackboard course shell

Required technology:

The syllabi from your MATM 5364 and 5361 courses listed many technological resources that can support any qualitative or quantitative data analysis you may do (e.g., Minitab; see <https://admin.utep.edu/Default.aspx?tabid=74328>). You may also use other commonly available technology to help save time when with transcribing interviews (e.g., <https://www.youtube.com/watch?v=JGAYpS5LJTY>).

You will also need to make sure you have access to the technological setup to participate in the virtual meetings. The expectation is that you are using a technology setup that gives us the option of hearing you, seeing your face (especially when you're presenting), and letting you share your screen (e.g., if we need you to show us a document). Our default environment will be **Blackboard Collaborate Ultra** (<https://admin.utep.edu/Default.aspx?tabid=74604>). And while I believe you can access this environment on mobile devices, it will probably be easier for you (e.g., to read/share a document) if you are on a laptop/desktop with the Google Chrome browser. I initiate the session by emailing you a link, so look for that email when it gets near our meeting time. For help: <https://help.blackboard.com/Collaborate/Ultra/Participant>

In the unlikely event that Blackboard is down, stay tuned (and stay positive) as I set the class in motion using another means. Our "Plan B" (hopefully we won't ever need a "Plan C", but there are lots of free options out there) will be UTEP's **Skype for Business** (<https://admin.utep.edu/Default.aspx?tabid=74466>), which is similar to (but separate from) "regular" Skype, and you install Skype for Business on your computer by logging in to your email account from my.utep.edu clicking the "gear," choosing settings, and then Software. Click on the Skype for Business icon. (If you already have Microsoft Office 2016, you might not need to download the software -- see if **Skype for Business** is under your Microsoft Office 2016 folder under "All Programs.") To install on your Apple, Android, or Windows mobile devices, just install the apps from your app store.

If you have technology issues, remember that the UTEP HelpDesk is there for you: 747-4357, helpdesk@utep.edu, UTEP Library room 300, <https://admin.utep.edu/Default.aspx?tabid=74105> <https://admin.utep.edu/Default.aspx?tabid=74092>.

Course Objectives (Learning Outcomes): Students will....

- Extend and synthesize knowledge and skills from prior mathematics education research courses (e.g., MATM 5360, 5361, 5364)

- Gain further experience with the collaborative aspects of research, such as: multiple raters/researchers, peer debriefing, co-writing, giving/receiving constructive feedback on written work and oral presentations, etc.
- Write a high-quality research paper (in APA style) and give a high-quality presentation of it
- Discuss professional norms involved in submitting a conference proposal or a journal article (as well as identifying appropriate venues)
- Gain further knowledge about what is needed to write a paper as well as identify an appropriate conference or journal to submit it to
- Make further connections with how research can inform important and practical questions related to one's classroom teaching or professional development

Course Activities/Assignments: The ultimate, main assignment in this course is the writing and presenting of a research paper. Weekly virtual meetings will monitor progress towards this goal as well as discuss questions that arise. As needed to support course objectives and/or address issues that arise, there will be some brief reflections, HW or readings or student-facilitated discussions. Any quizzes would be looked at only if your average falls just short of a letter grade cutoff.

Assessment of Course Objectives: Assessments include written reflections, team write-ups, class discussions, oral presentations.

Course Schedule: Census Day: Jan. 31 for UTEP
 Deadline to Drop with a "W": March 29
 Last Regular Class Meeting: Monday, April 30
 Finals week meeting: scheduled by UTEP for May 7, 4-6:45pm
 (we will discuss later if/how to address the starting time and whether the meeting will be virtual or in-person)

Grading Policy: after any rescaling needed for all components to be on the 0-100 scale, the grade is determined by the usual cutoffs of 90-80-70-60 based on these parts:

Final Paper (55%): MS Word file with double-spacing and a standard 12-point font (e.g., Times New Roman), checked for spelling and grammar, with any appropriate output/graphics electronically pasted into the document. The paper may incorporate prior work as long it is made clear to me what part of the work was already done (e.g., in MATM 5360 or 5361) and that a significant part of the 5396 paper involves new data and/or analysis from spring 2018. You may write the 5396 paper by yourself or with one classmate. Currently, the paper is due 5pm April 30, and more details on the structure of the paper will be provided soon.

Presentation of Final Paper (15%): (see [resources for giving oral presentations](#))

Attendance/Participation (15%): Equally divided among the number of our meetings. For example, if we have 15 meetings, you get 1% for each meeting that you show up prepared and make at least one nontrivial contribution to discussion rather than just being silent or off-task. For up to 3 excused absences (e.g., doctor appointment, required professional development workshop or teacher open house night), you will still get attendance credit, but if you end up having more, we will need to discuss your situation and/or arrange for you to participate asynchronously.

CITI (Collaborative Institutional Training Initiative) Training (15%): email to me by 5pm Feb. 1 a screenshot or scanned copy of your Completion Report that verifies that

you have successfully completed this online training sometime after January 2016. You'll go to <http://www.citiprogram.org>, register, select the "Human Subjects Research" coursepath, then choose "Social and Behavioral". (Note: UTEP has an example of website screenshots that may be helpful to see even though they refer to someone choosing a different course path than the one you'll take:

<https://research.utep.edu/Portals/99/Doc/policies/rcr/CITI%20Instructions%2008-08-13%20v1.pdf>).

By listing your affiliation as with UTEP and not requesting CEUs, this training is free and the certification is good for 3 years. If you have any questions about the CITI process, contact utepresearchtraining@utep.edu. This training is part of what you have to do to keep open the option of disseminating your research beyond our course, but also will give you valuable knowledge about the research process in general even if you currently do not have an interest in disseminating your classroom research.

Evidence of submission (by May 11) of 5396-related paper for an appropriate peer-reviewed journal or acceptance (by May 11) of 5396-related presentation for an appropriate conference (5% extra-credit): here are just a few examples of possible venues out there -- the next deadline for *Texas Mathematics Teacher* (which can include almost any math ed topic) is July 1; papers can be sent to *Teaching for Excellence and Equity in Mathematics* (which can include almost any math ed topic as long as there is a connection to equity; articles on English learners are a particularly nice fit) or *Mathematics Teacher*; the deadline for the May 2018 national (but virtual) conference **eCOTS** (if you teach AP statistics) is March 1; the deadline for the March 27-28 **UTEP Women's History Month Conference** (if your interest is gender issues in mathematics education) is January 26. Of course, these are just some examples and you're welcome to bounce off of me others you may find and I'll let you know if they seem appropriate. Some opportunities will fall outside the timeline for this extra-credit opportunity, but are still worth considering, such as the next **UTEP Graduate Student Research EXPO**, which will be mid-fall 2018.

Quizzes: any quizzes will be taken into account only if your final average falls a point below a letter grade cutoff (i.e., they can only help)

Human Subjects Research (IRB): We are responsible for knowing and complying with all federal and institutional policies regarding research. Some studies (e.g., content analysis of curriculum materials) do not involve human subjects and therefore require no IRB involvement at all. You also do not need to file an IRB exemption request if you are doing a classroom research study on your students where all 6 of these conditions are met: (1) you're collecting "data" (e.g., homework assignments) that is within the scope of what you might collect anyway as their teacher as part of assessing their work and informing your efforts to teach them, (2) you're complying with all regulations your school has on confidentiality, etc., (3) the study is intended to gain experience with the methods of research rather than to produce knowledge that generalizes beyond your classroom, (4) you has disclosed the project's methodology in advance to your MATH 5396 professor so that any potential issues could be discussed, (5) the study involves no risk or minimal risk to subjects, and does not involve sensitive topics, and (6) the results will not be shared outside your peers in our class (i.e., will not be disseminated at a conference or in a journal, though discussing patterns in de-identified data with your school's math teachers for a math department professional development meeting should be okay). If, however, your data involves human subjects and you would like the option of sharing beyond

our class (e.g., in order to fulfill the 5% extra-credit option described earlier), you will need to submit the Exemption Application (available from the Forms page: <https://research.utep.edu/Default.aspx?tabid=72172>) if you qualify (for some discussion of relevant considerations about what qualifies, see https://research.utep.edu/Portals/99/_irb_web/irb%20research%20guidance%20docs/UTEP%20IRB%20Guidance%20on%20Classroom%20Research.pdf), or you may instead be required to submit all parts needed for IRB expedited or full review (see <https://research.utep.edu/Default.aspx?tabid=72171> and <https://research.utep.edu/Default.aspx?tabid=72175>). Note that you will need to very carefully plan your timeline so that you allow time for all needed approvals to be in place *before* collecting data. So, for example, you might submit the IRB process in January, get approval in February, and then collect data in March. For any questions about the IRB process and rules that are still not clear, feel free to contact UTEP's very helpful IRB Administrator Christina Ramirez (747-7693, Kelly Hall 709, cramirez22@utep.edu).

Attendance Policy: To support the main goal of the course (i.e., your paper), we will have synchronous (generally, virtual) meetings that will give accountability on our incremental progress, a forum to discuss readings and issues that arise, and a chance to give each other real-time feedback. Obviously, we can't resimulate those discussions, insights and interactions, so attendance is important.

As the UTEP *Catalog* says, "When in the judgment of the instructor, a student has been absent to such a degree as to impair his or her status relative to credit for the course, the instructor may drop the student from the class with grade of "W" before the course drop deadline [March 29] and with a grade of "F" after the course drop deadline." In practical terms, this means a student is **subject to being dropped for 4 or more absences** (unless you have given me a written or emailed reason I have approved). If you choose to withdraw, you should submit the formal paperwork (and send me an email to let me know) rather than just stop attending class and assume you will be withdrawn automatically.

It's **your responsibility** to....

- (1) give me a written note or email by the 15th day of the semester [Feb. 5] if you will have absence for religious holy days (which are excused, of course).
- (2) give me an email or written documentation as soon as possible if you anticipate the possibility of missing large parts of class due to exceptional circumstances such as military service/training, childbirth, or competing on official UTEP athletic teams.
- (3) let me know by email (**Lesser (at) utep.edu**) or voicemail (747-6845) or daytime math dept. fax (747-6502) at the *earliest opportunity* if you have a serious situation which may affect a major assessment deadline, the final exam week meeting, or a large number of "regular" meetings. If you miss a single "regular class meeting," you don't need to contact me, but you **DO** need to get copies of notes and announcements from a classmate: **be sure to have contact info for at least 3 classmates** for this purpose

Academic Integrity Policy: It's UTEP's policy (and mine) for all suspected violations to be referred to the Dean of Students for investigation and disposition (see the Handbook of Operating Procedures, <http://admin.utep.edu/Default.aspx?tabid=73922>). Cheating, plagiarism and collusion in dishonest activities are serious acts which erode the university's purpose and integrity and cheapen the learning experience for us all. Don't resubmit work completed for other classes without specific acknowledgment and permission from me. It is

expected that work you submit represents your own effort (or your own group's effort, if it is a group project), will not involve copying from or accessing unauthorized resources or people (e.g., from a previous year's class). You must cite references that you do consult, using **APA style** with complete citations even for websites and people you consult.

For Group Work: Within a group, members are allowed to divide up subsets of the project for which individuals will take the initial responsibility for coordinating efforts, but it is assumed that by the time a group turns in a writeup that all members have read, discussed, contributed to, and understand what is being turned in. Group members may even discuss general ideas and strategies with members of other groups, but NOT share parts of actual written work. At a minimum, to be safe, put away all written notes and writing materials and recording devices before having any intergroup conversations. And if you still see a "gray area," play it safe and ask the instructor! Conversations between teams are not allowed during in-class quizzes taken as teams.

Civility Statement: You are expected to follow basic standards of courtesy (<http://admin.utep.edu/Default.aspx?tabid=73922>) and may be dismissed from class for blatant or sustained disruptive behavior. Your comments during classroom discussions need to focus constructively and respectfully on the intellectual merit of a position, *not* critiquing the person expressing it.

Student Accommodations Statement: If you have or believe you have a disability requiring accommodations, you may wish to self-identify by contacting the Center for Accommodations and Support Services (CASS; 747-5148; East Union Building 106; cass@utep.edu; <http://sa.utep.edu/cass/>) to show documentation or register for testing and services. CASS will ask you to discuss needed accommodations with me within the first 2 weeks of the semester or as soon as disability is known, and at least 5 working days before an exam. You are responsible to make sure I receive any CASS instructions and accommodation letters. CASS provides note taking, sign language, interpreter, reader and/or scribe services, priority registration, adaptive technology, diagnostic testing for learning disabilities, assistance with learning strategies/tutoring, alternative testing location and format, and advocacy.

Military Statement: Give me an email or written documentation as soon as possible if you anticipate the possibility of missing large parts of class due to military service.

ADDITIONAL INFORMATION

Campus Concealed Carry: <http://sa.utep.edu/campuscarry/>

Professionalism: Beyond the previously mentioned Civility Statement, students in this course are required to exhibit professionalism that goes beyond avoiding negative behaviors. This includes making a good faith effort in preparation for and participation in individual and collaborative class activities. A classroom culture must be actively supported that understands that "wrong answers" are usually correct answers to a different question or valuable learning opportunities to address a common misconception. Also, be open to local opportunities for professional growth. For example, teachers may (GEPCTM), state (TCTM), or national (NCTM, TODOS, ASA). The UTEP Graduate School offers workshops, some of which are on evenings or Saturdays (<https://www.utep.edu/graduate/Calendar/index.html>), and archives materials (<https://www.utep.edu/graduate/pd/workshops-and-events.html>) that may be useful to you. At UTEP, the College of Education has a **PhD program in Teaching, Learning**

and Culture (which includes dissertations in mathematics education) that will often have mathematics education research presentations on Thursdays at 5pm this semester. There are also archived mathematics education research presentations/discussions available at <http://mathed.podomatic.com/>, <https://www.causeweb.org/cause/webinars>, etc.

Additional Resources:

APA style: <https://owl.english.purdue.edu/owl/resource/560/1/>

<http://www.math.utep.edu/Faculty/lessor/APA.html>

Writing your research: <https://owl.english.purdue.edu/owl/section/1/2/>

<http://online.sfsu.edu/mgriffin/WritingTheThesis.pdf>

http://www.ldeo.columbia.edu/~martins/sen_res/writingtips2.htm

Giving a good talk: <http://www.d.umn.edu/~jgallian/goodPPtalk.pdf>

<http://www.math.utep.edu/Faculty/lessor/speaking.html>

More places to publish your work: <http://mathedjournals.wikispaces.com/>

<http://www.math.zju.edu.cn/zlx/Journals-Education.htm>

Student Support: My training is limited to academic resources (e.g., my chapter on statistics anxiety on (e)reserve in the UTEP library under “MATH 5364”), but I want anyone who feels overwhelming stress/crisis to know about these broader resources:

- UTEP Counseling Center (free to all students): 747-5302 (after-hours goes to a crisis line)
- Mental Health Crisis Line: 779-1800
- National Suicide Prevention Hotline: 1-800-273-8255
- Veterans Crisis Line: 1-800-273-8255
- NAMI (National Alliance Against Mental Illness) of El Paso: 534-5478
- <http://caringeducators.tumblr.com/survival>