UTA TQ Teacher Questioning Seminar
(EDUC 5309: Advanced Instructional Strategies, Spring 2012)
The role of teacher questioning in mathematical discourse management

5:00–6:30 PM Tuesdays, 109 PKH, UTA

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Office Hours: before/after class, Mon. 4 PM & by appt.

Catalog description (EDUC 5309): This course engages students in a study of advanced models of teaching and learning such as concept attainment, inductive thinking, inquiry, problem-based learning, role play, simulation games and other models, with an analysis of research on the effectiveness of these models. Emphasis is on current trends in the content areas.

Class description (EDUC 5309): This special *year-long* section of EDUC 5309 is part of a THECB-funded grant program providing professional development for teachers of K–8 mathematics, and as such the emphasis on content-area current trends is a focus on teacher questioning and discourse management in the mathematics classroom, for practicing teachers who already have a graduate background in mathematics education (MATH 5370 and 5375–5379 or equivalent).

Prerequisites and special requirements: Graduate standing and consent of instructor. Class discussions and assignments will make explicit reference to ideas and assignments from MATH 5370, and to some extent MATH 5375–5379. As part of a practitioner-oriented program, this class features assignments which require regular interaction with K–12 mathematics students.

Texts: See required readings in bibliography later in this syllabus. Links to online readings will be provided on the class web page. (Supplementary materials will be provided in class and/or online.)

Course home page: http://mathed.uta.edu/kribs/5309.html

Last day for withdrawal: March 30

Learning outcomes: Students who complete this course will be able to:

- describe and develop sociomathematical classroom norms that foster effective mathematical discourse, including dispositions for justification and generalization
- describe and implement language and authority patterns that foster student-centered mathematical discourse and student acquisition of mathematical vocabulary
- select and develop mathematical tasks with high cognitive demand and potential for engaging all students in a learning community
- describe and apply techniques for moderating effective small-group and whole-class mathematical discussions
- describe and apply techniques for analysis of both student and teacher discourse moves

Format: In this course we will study discourse management in mathematics classrooms by examining our own practice and that of others. In class we will discuss readings from research journals, analyze video and transcriptions of actual classroom practice, and develop the ability to evaluate our own teaching reflectively as well as provide feedback to peers. The success of the course depends on participants arriving prepared for each session, with all required materials including notes on assigned readings. The course culminates with an action research project involving detailed discourse analysis of one's own teaching (based on transcription of a recorded lesson).

That said, this course also aims to promote participants' autonomy as action researchers, with significant flexibility to follow up participants' interests, so the course's success also depends on participants taking the initiative to identify topics on which more time needs to be spent.

POLICIES:

• Students who are not classroom teachers will need to make arrangements to interact with K–8 students for many of the assignments, notably the project and journal.

• Students are expected to be on time, prepared and ready to work every week. This class meets every Tuesday from Aug. 30 to Dec. 13, and from Jan. 17 to May 8 (except Mar. 13). Each student is allowed the equivalent of two weeks' absence (3 total hours) for whatever reason without penalty. All subsequent absences (including arriving significantly late) will result in the reduction of the final course grade by one-half letter grade (5%) for each absence. *Students who miss an entire class must talk with the instructor prior to the next class.*

• With the exception of examples of student work, written assignments are expected to be typed and use correct grammar and punctuation.

• Each student is allowed one late submission during the semester. The paper must be submitted before the beginning of the class period following that in which it was due. Papers not submitted by the end of class time on the due date are considered late. Submission of a late paper constitutes the student's agreement that this is the one allowed late assignment.

• Each student is allowed one electronic submission during the semester. Electronic submissions must be complete and not missing any ancillary materials such as student work necessary for grading. (If the electronic submission is made late, then it is both the only late paper allowed and the only electronic submission allowed.) This does not include drafts sent for consultation prior to submission, but consultation must take place in person or via telephone.

• Each student is allowed to submit one revised paper for a regrade, under the following terms: The revised paper and the graded original must be turned in together at the penultimate class meeting. The new grade replaces the original. Students are encouraged to consult with the instructor prior to submitting a revised paper.

• As a sign of respect for your peers and our common work, please keep all cellular phones, computers, and other electronic devices turned off during class. In emergencies cell phones may be set to vibrate only, and brief calls taken in the hallway outside.

• The calendar given in this syllabus is tentative and may be adjusted during the course of the semester. In case of doubt regarding assignment due dates or unanticipated changes to meeting dates/times/places, please check with the instructor.

• This course follows University and college (COEHP) policies. Please see the attached supplement for further details on topics such as drops, withdrawals, academic integrity, accommodating disabilities, mission statements, etc.

• **RESEARCH STUDY**: The grant funding agency (THECB) supporting this course requires that the pre/post-test questionnaire and selected course assignments be used to evaluate the grant project's impact on participants. These data will also be used for a research study of mathematics discourse practices, being conducted by a research group led by Dr. Kribs Zaleta at UTA with the possibility for publication. This study examines instructional practices that promote effective discourse in K–12 mathematics classrooms, with the aim of informing teachers and professional development providers. Although the assignments are required as part of participation in the grant courses, allowing the researchers to use the same data for their own research purposes is completely voluntary and will have no effect on your standing in the class/program either way should you choose to participate. No personal identifying information (name, etc.) will be included in the analysis or any publications. Nothing additional outside of the required activities will be requested for participation in the research study. Should you wish to exclude your data at any time from the research study, please inform your professor.

GRADES: The grade for this course consists of five components, each of which is described in more detail on the following pages. Components are weighted as given below, with final letter grade assignment following the traditional ten-point scale (90–100 A, 80–89 B, etc.).

1. Action research project: discourse self-analysis (40%)
2. Journal (10%)
3. Class participation (20%)
4. Beliefs mapping (5%)
5. Reflections (25%)

Assignments

1. Action research project: discourse self-analysis

The major project in this course is an action research project in which you will record, transcribe, and analyze a complete discussion from a lesson you taught, and make a short presentation on the results of your analysis. We will be discussing and developing the tools you need (both theoretical and technical) throughout the course, and will frequently spend time in class on the analysis, especially toward the end of the course.

The lesson whose discourse you analyze should be a typical day in your classroom, rather than some kind of showcase, because the point is to analyze your practice in order to see how you can make progress in your personal professional goals. You may wish to record multiple classes, in order to let the newness of being recorded wear off, as well as in order to work out technical difficulties (primarily sound issues, so that you can hear both yourself and the students clearly). We will be providing flip videocameras for participants' use recording lessons, so no obtrusive equipment will be necessary. By the halfway point of the course, you will need to submit documentation showing you have a recorded lesson (a digital video file which you will eventually submit as part of your project for transcription verification), and noting the approximate date, length, and topic.

Once you have a recording with usable audio, you will need to transcribe the discourse. This is likely to be a lengthy but not difficult process (but make sure the audio is audible all the way through) for which templates will be provided and practice obtained in class. See calendar for the deadline for submitting the transcription file, but you should start work as early as possible and work steadily on it, in order to allow plenty of time for analysis.

The most interesting part of the project will be your analysis of the discourse. In the second half of the course we will become familiar with several frameworks for analyzing both student and teacher discourse, and we will have discussed several examples of such projects (see bibliography). You will also have articulated your personal professional beliefs and goals regarding mathematics teaching (see beliefs mapping and reflections). You will identify a particular question or theme to investigate in your transcribed lesson, and apply both quantitative and qualitative frameworks to analyze them. The emphasis here is not on defending your teaching in the lesson you analyze, but on developing your ability to analyze your own practice (in particular how you manage mathematical discourse) and reflect on ways to adapt it in order to accomplish goals you set for yourself. Class meetings will provide opportunities for individual feedback from both peers and the instructor. Eventually you will incorporate both types of written feedback into your formal written analysis (see calendar for deadline).

Finally, you will make a 10-15 minute presentation on your analysis. You are encouraged, but not required, to use visual aids for your presentation (charts, diagrams, video clips, PowerPoint if you wish). The presentation (like the written analysis) should identify clearly the main question you investigated, the main analysis tools you used, and the main findings with regard to your goals.

The four components of the project (recording with brief documentation, full transcription, discourse analysis paper, and final presentation) receive equal weight in grading (i.e., each represents 10% of the course grade). Please consult your instructor if you have questions about any part of the project.

2. Journal

As part of developing and documenting the disposition to reflect on one's own practice, participants will keep a journal in which they will make notes on significant moments, events, or ideas that occur on a daily basis in their own teaching. From time to time the instructor will give a specific prompt in class (such as identify a language issue you'd like to work on), but in general the topic is each participant's prerogative. Journal entries are not fully fleshed-out essays; rather, they are meant to be short entries of 2 or 3 sentences (up to a paragraph) noting something significant that the participant noticed during or after a lesson. Journals may be handwritten (but legible); it may be most convenient simply to keep a small notebook in one's desk for jotting down observations from time to time.

Journals should be brought to class, in order to inform discussion, but will only be collected once, toward the end of the course (see calendar). Grading will be limited to verifying some documentation of professional growth, with a minimum of one entry per week.

3. Class participation

Participants are expected to contribute consistently to both small-group and whole-class discussions. This includes demonstrated respect for peers and our common work (see also course policies) including monitoring small-group functionality as well as coming to class prepared. Full marks will also require participation in large-group discussion at least ten times per semester.

4. Beliefs mapping

As part of our reflection on our own teaching practices, participants will create a beliefs mapping (cf. Boaler and Humphreys, Chapter 1), a single sheet which maps the beliefs closest to the heart of one's teaching. We will discuss this in detail in Session 2a (see calendar), but here are some prompts to get you started (from Herbel-Eisenmann and Cirillo, p. 16):

- Over the next month, carry a set of stick-on notes with you and, as ideas occur to you, use them to write words, pictures, or phrases that you think capture what drives your instructional decision making.
- What kinds of experiences do you think are important for your students to have in your classroom? What kinds of expectations do you have for your students?
- What are some of the roles you play in the classroom, and why do you think those roles are important? What are some of the roles that students play in your classroom, and why do you think those are important? What role does your textbook play in the classroom?
- What does it mean to "know" and "do" mathematics?
- What part do students' experiences outside the classroom play in your classroom?
- After you have defined a set of professed beliefs, create a spatial map on a large sheet of paper. If the center of the paper is what is "closest to your heart in your teaching," how do all the things you wrote relate to the core of your professed beliefs? (If helpful, you can draw connecting lines and write connector words between the different stick-on notes.)

Grading for this component will be limited to verifying a thoughtful articulation and arrangement of beliefs related to the teaching and learning of mathematics. Note that the beliefs mapping is due earlier than the reflection that will eventually accompany it (see R6 below); you should bring your beliefs mapping to class on the date it is due, in order to inform discussion, but should submit only a copy or (by e-mail) electronic scan, so that you have your original while writing the reflection.

5. Reflections

Participants will write a total of ten one-page reflections (see calendar for schedule) on different aspects of mathematical discourse. Prompts are given below; responses are not meant to be authoritative references, but thoughtful applications of discussions and techniques from class (so don't work too far ahead), which serve to inform subsequent class discussions. These reflections are to be turned in at the end of class; I will respond to them in writing and return them at our next meeting.

R1 *Critical colleagueship & action research.* Your role as an action researcher in this community of practice involves both opening your own practice up to analysis by yourself and other community members, and providing constructive analytical feedback to your peers regarding their own work, in more formal ways than you may have done before. What challenges does each of these two aspects of critical colleagueship hold for you, and what hopes do you have for them?

R2 *Beliefs & goals.* Write a coherent narrative including one paragraph on each of the following: (a) What are your beliefs about the teacher's role in mathematical discourse? (b) What are your beliefs about students' role in mathematical discourse? (c) What are your goals for yourself in this course? (d) What are your goals for your students in mathematics? [Note this reflection has only limited overlap with the beliefs mapping assignment, since the latter requires you to identify which of your beliefs are most central to your teaching. You may use it as a starting point.]

R3 *Sociomathematical norms in your classroom.* Respond to the questions from Ball (1991) with regard to your own classroom, describing both the present reality and your ideal.

R4 *Task analysis.* Select a problem used in one of your lesson papers for the MATH 537X (TQ) courses and analyze it in terms of the discourse opportunities, and how the scaffolding/structure suggested in the lesson plan shapes student responses (both mathematically and in terms of discourse), cf. Rigelman (2009).

R5 *Your "teacher moves".* After discussing readings on teacher moves and challenges, write a reflection summarizing your own effective teacher moves, teacher moves you're working on, and your greatest challenges in moving forward.

R6 *Beliefs mapping.* Explain your beliefs mapping: Why are certain beliefs placed at the center, and others further out? Which are connected to each other in some way? Submit a copy of your beliefs mapping with your paper.

R7 *Discourse plan.* Select one of your lesson papers for the MATH 537X (TQ) courses and develop a detailed discourse plan, including anticipated student difficulties and solution approaches, whole-class debriefing structure, etc. Your plan should be clearly specific to the problem/lesson involved, not a generic launch-explore-summarize.

R8 *Student discourse analysis.* Analyze the student discourse in one of your case studies from the MATH 537X (TQ) courses, using the 5-level OMLI scale (see, e.g., Rigelman (2009)) to describe the overall cognitive level. (You may also wish to use appropriate elements of PSTM Standard 3 in your description.) Write a paragraph summarizing which aspect(s) of student discourse in this episode most promoted learning, and which most closely relate to your focal area(s) for developing your discourse moderation abilities further.

R9 *Literature review.* Read one of the optional readings (see bibliography) and write a review of it, including a paragraph on each of the following: a summary of the article, your response to it (agree/disagree, what does/doesn't seem useful, etc.), and how it relates to what you are working on in your own discourse management. Include a *full* bibliographic citation for the reading you review.

R10 *Giving critical feedback.* Give critical feedback on a colleague's work. In class we will form small groups in which to share and discuss our drafts of self-analyses for the project. Choose one colleague's draft to which to respond more formally: identify the framework(s) used in the analysis (e.g., Flanders, OMLI, Krussel et al., etc.) and look for evidence from the transcript cited in the analysis as evidence of the given level. Or write what stands out most to you about the discourse under analysis and what framework might best illuminate that point. (Other approaches are also possible.) The idea is not to find fault with your colleague's work, but to give you practice, within a supportive environment, in providing thoughtful constructive feedback to peers.

Readings on mathematical discourse management

Assigned readings for EDUC 5309/TQTQ

Source books

1 Jo Boaler and Cathy Humphreys, *Connecting mathematical ideas: middle school video cases to support teaching and learning*, Heinemann, Portsmouth NH, 2005.

2 Beth Herbel-Eisenmann and Michelle Cirillo (eds.), *Promoting purposeful discourse*, NCTM, Reston VA, 2009.

3 Libby Knott (ed.), *The role of mathematics discourse in producing leaders of discourse*, Information Age Publishing, Charlotte NC, 2009.

4 National Council of Teachers of Mathematics, *Professional standards for teaching mathematics*, Author, Reston VA, 1991.

Articles

5 Deborah Loewenberg Ball, What's all this talk about 'discourse'?, *Arithmetic Teacher* 39(3): 44–48, November 1991.

6 Deborah Loewenberg Ball, Imani Masters Goffney, and Hyman Bass, Guest editorial: The role of mathematics instruction in building a socially just and diverse democracy, *The Mathematics Educator* 15(1): 2–6, 2005.

7 Barbara Lynn Blanke, Understanding mathematical discourse in the elementary classroom: a case study, doctoral dissertation, Oregon State University, 2009.

8 L. Bonne, R. Pritchard et al., Teachers developing as researchers: Teachers investigate their use of questions in mathematics, Redwood School and Victoria University of Wellington College of Education, 2007.

9 Beth Herbel-Eisenmann, Some essential ideas about classroom discourse, in [2], Chapter 2, pp. 29–44.

10 Beth Herbel-Eisenmann and M. Lynn Breyfogle, Questioning our patterns of questions, *Mathematics Teaching in the Middle School* 10(9): 484–489, May 2005.

11 Karen M. Higgins, Cary Cermak-Rudolf, and Barbara Blanke, "Yeah, but what if...?": a study of mathematical discourse in a third-grade classroom, in [3], Chapter 4, pp. 61–76.

12 Jean Krusi, Revoicing: the good, the bad, and the questions, in [2], Chapter 7, pp. 117–135.

13 Jill Bodner Lester, Establishing a community of mathematics learners, in Deborah Schifter (ed.), *What's happening in math class? Envisioning new practices through teacher narratives*, Teachers College Press, New York, 1996. pp. 88–102.

14 Cheryl Ann Lubinski and Nancy Nesbitt Vacc, The influence of teachers' beliefs and knowledge on learning environments, *Arithmetic Teacher* 41: 476–479, April 1994.

15 Amy M. Martino and Carolyn A. Maher, Teacher questioning to promote justification and generalization in mathematics: what research practice has taught us, *Journal of Mathematical Behavior* 18(1): 53–78, 1999.

16 Nova Southeastern University Center for Teaching and Learning, Flanders Interaction Analysis, http://www.nova.edu/hpdtesting/ctl/fia.html (expository videos), 2007.

17 Blake E. Peterson and Keith R. Leatham, Learning to use students' mathematical thinking to orchestrate a class discussion, in [3], Chapter 6, pp. 99–128.

18 Nicole Miller Rigelman, Eliciting high-level student mathematical discourse: relationships between the intended and enacted curriculum, in [3], Chapter 8, pp. 153–172.

19 Thomas E. Rowan and Josepha Robles, Using questions to help children build mathematical power, *Teaching Children Mathematics* 4(9): 504–509, May 1998.

20 M. G. Sherin and Elizabeth A. van Es, A new lens on teaching: learning to notice, *Mathematics*

Teaching in the Middle School 9(2): 92–95, 2003.

21 Angie Shindelar, Maintaining mathematical momentum through "talk moves", in [2], Chapter 9, pp. 165–178.

22 Nancy Nesbitt Vacc, Implementing the professional standards for teaching mathematics: questioning in the mathematics classroom, *Arithmetic Teacher* 41(2): 88–91, 1993.

23 John Van de Walle, *Elementary and middle school mathematics: Teaching developmentally*, Allyn and Bacon, Boston MA, 2007. Chapter 5, Planning in the problem-based classroom.

24 Dave Weaver, Tom Dick, and Nicole Miller Rigelman, Assessing the quality and quantity of student discourse in mathematics classrooms, RMC Research Corporation, Portland, Oregon, August 2005.

Additional readings (optional)

Jo Boaler and K. Brodie, The importance of depth and breadth in the analysis of teaching: a framework for analysing teacher questions. Paper presented at the annual meeting of PMENA, Toronto, ON, 2004.

Courtney Cazden, *Classroom discourse: the language of teaching and learning*, 2nd edition, Heinemann, Portsmouth NH, 2001.

Suzanne H. Chapin, Catherine O'Connor, and Nancy Canavan Anderson, *Classroom discussions: using math talk to help students learn*, 2nd edition, Math Solutions, Sausalito CA, 2009.

N. Cengiz, T. J. Grant, and K. Kline, Teacher questioning to extend student thinking. Paper presented at the annual meeting of the American Educational Research Association, Chicago, Illinois, April 2007.

Douglas A. Grouws, Conceptions of Mathematics Inventory, University of Iowa, Iowa City IA, 1994.

Kimberly Hufferd-Ackles, Karen C. Fuson, and Miriam Gamoran Sherin, Describing levels and components of a math-talk learning community, *Journal for Research in Mathematics Education* 35(2): 81–116, Mar 2004.

D. R. Ilaria, Questions that engage students in mathematical thinking, in *Proceedings of the annual meeting (of the) North American Chapter of the International Group for the Psychology of Mathematics Education* (24th, Athens, GA, October 26-29, 2002), 2002. Vol. 1–4. ERIC document SE 066 887.

Elham Kazemi, Discourse that promotes conceptual understanding, *Teaching Children Mathematics* 4: 410–414, March 1998.

L. Krussel, B. Edwards, and G. T. Springer, The teacher's discourse moves: a framework for analyzing discourse in mathematics classrooms, *School Science and Mathematics* 104(7): 307–312, November 2004.

Carol Simon Weinstein and Andrew Mignano, Jr., *Elementary classroom management: lessons from research and practice*, McGraw Hill, New York, 2007. Chapter 10, Managing groupwork.

See also Beth Herbel-Eisenmann's extensive list of study group readings on discourse on pp. 192–195 of [3].

Calendar

A tentative schedule with topics is given below (subject to updating).

Date	Sess.	Topic	Readings	Assignments Due
30 Aug	1a	Introduction to discourse analysis		*none*
06 Sep	1b	Review of research background	[6]	R1
13 Sep	2a	Beliefs and goals	[1]1, [14]	
20 Sep	2b	The physical learning environment	[4]4	R2
27 Sep	3a	Sociomathematical norms	[1]7, [4]5, [11], [13]	
04 Oct	3b	Authority patterns	[5], [9]	
11 Oct	4a	Language	[9]	R3
18 Oct	4b	The role of tasks in shaping discourse	[4]1	
25 Oct	5a	Cognitive entropy in enacted tasks		
01 Nov	5b	Task analysis	[4]1	
08 Nov	6a	Techniques for moderating discourse	[12]	R4
15 Nov	6b	Cognitively guided discourse	[7]†, [10], [17], [20]	
22 Nov	7a	Small-group discourse	[21]	Beliefs mapping
29 Nov	7b	Whole-class discourse	[21]	
06 Dec	8a	Teacher questioning	[4]‡,[7]‡,[15]3.3,[19],[22]	R5
13 Dec	8b	Planning discourse	[23]	R6
17 Jan	9a	Introduction to discourse analysis II		Project video
24 Jan	9b	Flanders Interaction Analysis	[16] videos	
31 Jan	10a	Student discourse analysis	[24], [18] pp. 155–157	R7
07 Feb	10b	”	[4]3	
14 Feb	11a	Teacher discourse analysis	[4]2	R8
21 Feb	11b	”		
28 Feb	12a	Applications and working session 1	[1]4	Project transcript
06 Mar	12b	”	[15]8.1	
20 Mar	13a	Applications and working session 2		R9
27 Mar	13b	”	[15]8.2	
03 Apr	14a	Applications and working session 3	[1]5	R10
10 Apr	14b	”	[15]8.3	Journals
17 Apr	15a	Applications and working session 4	[1]6	Project analysis
24 Apr	15b	”	[15]8.4	
01 May	16a	Final presentations		Presentations
08 May	16b	Final presentations		Presentations

* denotes readings available online (see web page).
† pp. 90–137, 142–153
‡ [7] pp. 99–104; [4] pp. 3–4
$[m]n$ refers to Chapter (or Section, or Standard) n in reference number m in the bibliography.

See bibliography for further details of readings (nonelectronic readings are available at the UTA Libraries).

University Policies

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://wweb.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 or by calling the Office for Students with Disabilities at (817) 272-3364.

Academic Integrity: At UT Arlington, academic dishonesty is completely unacceptable and will not be tolerated in any form, including (but not limited to) “cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts” (UT System Regents’ Rule 50101, §2.2). Suspected violations of academic integrity standards 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 Available: 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 contact the Maverick Resource Hotline by calling 817-272-6107, sending a message to resources@uta.edu, or visiting 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.

To obtain your NetID or for logon assistance, visit https://webapps.uta.edu/oit/selfservice/. If you are unable to resolve your issue from the Self-Service website, contact the Helpdesk at helpdesk@uta.edu.

Student Feedback Survey: At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory will be asked to complete an online Student Feedback Survey (SFS) about the course and how it was taught. Instructions on how to access the SFS system will be sent directly to students through MavMail approximately 10 days before the end of the term. UT Arlington’s effort to solicit, gather, tabulate, and publish student feedback data is required by state law; student participation in the SFS program is voluntary.

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.

Grade Grievances: Any appeal of a grade in this course must follow the procedures and deadlines for grade-related grievances as published in the current graduate catalog.