

EDC 777: Seminar in Mathematics Education Spring 2010 Syllabus

“Research and Reflection for Learning and Leading”

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UK College of Education Professional Themes

This course will address the four themes of the conceptual framework for the UK professional education unit: **research**, **reflection**, **learning**, and **leading**. Students will be given the opportunity to review, analyze, discuss, and apply **research** from diverse perspectives in education, including professional scholarship and practitioner inquiry, in order to reflect on their own practices as they study, observe, and practice in P-12 school and university classrooms. **Reflection** will also be integrated into students' learning opportunities through the production of written essays and analyses of observation and teaching experiences to help students take advantage of the analytical and problem-solving skills that comprise critical professional reflection on one's own teaching. This course emphasizes the commitment of the professional education unit to ensure that its graduates move into their professional lives equipped for life-long **learning** as educators who will be active in **leading** colleagues in their schools, districts, and professional organizations. The ultimate goal in addressing these four themes is to produce teacher leaders who work together to improve student learning among diverse populations and improve education in Kentucky and beyond.

Course Overview/Objectives:

Purpose

The purpose of this course is to prepare doctoral students for their qualifying examinations and development of dissertation proposal which will ultimately lead to successful completion of their dissertation.

Expectations

Students are expected to:

- Identify a doctoral examination committee;
- Identify topics and areas for the qualifying examination;
- Develop and outline and a draft of the first three chapters of their dissertation; and
- Meet regularly with your dissertation advisor.

Required Texts:

Fitzpatrick, J., Secrist, J., & Wright, D. J. (1998). *Secrets for a successful dissertation*. Thousand Oaks: Sage.

Roberts, C. (2004). *The dissertation journey*. Thousand Oaks, CA: Corwin Press.

Silvia, P. J. (2007). *How to write a lot*. Washington, DC: American Psychological Association.

Course Assessment Tasks:

Identification of Qualifying Examination Topics (20 points): The qualifying examination will cover topics in mathematics education, general education, research methodology, teacher education, mathematics, rural and/or cultural issues. In this assignment, you are to identify those areas in which you wish to be examined. For example, in what areas of mathematics education (teaching, learning, curriculum, assessment, etc.) do you wish to be examined? In what areas of general education (classroom management, motivation, administration, grade spans—postsecondary, secondary, middle, elementary)? On what research methodologies (quantitative, qualitative) do you wish to be examined? On what levels (elementary, middle, secondary) and in what areas (methods courses, mathematics courses, field experiences) of teacher preparation do you wish to be examined? In what areas of mathematics (analysis, advanced algebra, advanced geometry, advanced calculus, etc.) do you wish to be assessed? Write a paper that describes specific recommendations the topics of your qualifying examination along with a rationale for each.

CRITERIA	Topic Identification	Topic Rationale	Writing
8/8/4	Topics are clear, reasonable, and appropriate.	Rationale for topics clear, appropriate and sound.	Well organized and no GPS errors.
6/6/3	Topics somewhat clear, reasonable, and appropriate.	Rationale for topics somewhat clear, appropriate and sound.	Somewhat well organized. A few GPS errors.
4/4/2	Topics lacking in clarity, reasonableness, and appropriateness.	Rationale for topics not particularly clear, appropriate, or sound.	Not well organized. Many GPS errors.
0	No topics provided.	No rationale offered.	Poorly written.

Formation of Qualifying Examination Committee (20 points): Your qualifying examination committee includes four persons including your chair, who must be a mathematics educator at

the University of Kentucky. These persons include: Drs. Jennifer Wilhelm, Margaret Mohr-Schroeder, Xin Ma, and Molly Fisher.

Your committee will be determined based on your topic and in consultation with Drs. Lee and Mohr-Schroeder. If you're interested in a member of your committee from one of the other ACCLAIM institutions, we can discuss this possibility. In determining your committee, other than your chair, you must conduct a websearch and review their vitas to determine which of persons are most qualified to conduct the examination in your areas of expertise. Provide a list of your committee members along with the qualifications and rationale for selecting each member. **Your committee should be formed by March 11 and your qualifying exam topics should be turned in by this date too.**

Other potential committee members from UK: Dr. Jennifer Wilhlem, Dr. Molly Fisher, Dr. Xin Ma, Dr. Alan DeYoung, Dr. Ellen Usher, Dr. Nicole Lewis, Dr. Jana Bouwma-Gearhart, Dr. Joan Mazur, Dr. Kelly Bradley, Dr. David Royster, Dr. Jane Jensen, and Dr. Tricia Browne-Ferrigno. These are just suggestions, you're not necessarily limited to this list.

Annotated Outline of Dissertation Chapter 1 (20 points): Chapter 1 of a dissertation provides the research questions and the rationale for conducting the study. The annotated outline should provide the list of research questions on which the study will focus and identification of theories and theoretical findings that support the constructs embedded in the research questions. The theories ensure that the research is grounded solidly in theory and the prior thoughts and ideas of others. This outline is due on **March 25**.

CRITERIA	Research Questions	Underlying Theories	Writing
8/8/4	Relevant, clear and attainable.	Underlying theories pertinent, relevant, and supported	Well organized and no GPS errors.
6/6/3	Somewhat relevant, clear, and attainable.	Underlying theories somewhat pertinent, relevant, and supported.	Somewhat well organized. A few GPS errors.
4/4/2	Lacks relevance, clarity, and/or not attainable.	Underlying theories lacking.	Not well organized. Many GPS errors.
0	No questions provided.	No theories offered.	Poorly written.

Annotated Outline of Dissertation Chapter 2 (20 points): Chapter 2 of a dissertation provides a literature review of the theoretical constructs and research conducted previously on these constructs. What research has been conducted thus far on the constructs of the study? What research has been conducted on the research questions or similar versions of the questions? What were the collective findings of these research studies? This outline is due on **April 15**.

CRITERIA	Theoretical Constructs	Research	Writing
8/8/4	Theoretical constructs, clear, relevant and connected	Underlying theories pertinent, relevant, and supported	Well written and comprehensive.
6/6/3	Theoretical constructs somewhat clear, relevant, and connected.	Underlying theories somewhat pertinent, relevant, and supported.	Somewhat well written and reasonably comprehensive.
4/4/2	Theoretical constructs lack clarity and relevance, and connectedness.	Underlying theories lacking.	Poorly written and not comprehensive.
0	No theoretical constructs provided.	No theories offered.	Not written.

Annotated Outline of Dissertation Chapter 3 (20 points): Chapter 3 of a dissertation provides a description of the research methodology of the study. It includes descriptions of the subjects, how they were selected, contexts of data collection, the strategies for data collection, and the methods of data analysis. For the annotated outline, specific subjects and contexts for the study need not be provided. This outline is due on **May 3**.

CRITERIA	Data Collection	Data Analysis	Writing
8/8/4	Data collection strategies clear and appropriate.	Data analysis strategies clear and appropriate.	Well written and comprehensive.
6/6/3	Data collection strategies somewhat clear and appropriate.	Data analysis strategies somewhat clear and appropriate.	Somewhat well written and reasonably comprehensive.

CRITERIA	Data Collection	Data Analysis	Writing
4/4/2	Data collection strategies lack clarity and not appropriate.	Data analysis strategies lack clarity and not appropriate.	Poorly written and not comprehensive.
0	No data collection strategies provided.	No data analysis strategies provided.	Not written.

Grading

Your grade will be determined by accumulation of points. The total number of points for the class is 100. The **Identification of Qualifying Examination Topics** and **Formation of Qualifying Examination Committee** will each be worth 20 points. The annotated outlines for each of the first three chapters of your dissertation will be worth 20 points each. The grading scheme will be: **A--**100-90; **B--**89-80; **C--**79-70; **F--**below 70. For late assignments, one point will deducted for each day late. Classes will meet on-line from 7:00 p.m. to 9:00 p.m. (EDT or EST) on Thursdays however, most sessions will focus on progress of individual students. This class will be treated largely as independent studies for students as they plan their qualifying examinations and prepare outlines for their dissertation proposals. Class time will be devoted to checking progress and providing feedback about your assignments. Please reserve these time slots throughout the semester, but you will not likely be meeting every week.

Course Schedule

Date	Topic	Due Dates for Class Assignments
February 25	Opening Class/Syllabus/Assignments	Application turned in for PhD Program
March 4	Individual Conferences	
March 11	Individual Conferences	Qualifying Exam Topics/Committees
March 18	Individual Conferences	(UK Spring Break)
March 25	Individual Conferences	Chapter 1
April 1	Individual Conferences	
April 8	Individual Conferences	
April 15	Individual Conferences	Chapter 2
April 22	Individual Conferences	
April 29	Individual Conferences	

Date	Topic	Due Dates for Class Assignments
May 3	NO MEETING	Chapter 3
May 6	Next Steps for Students	

Course Policies

Addressing Themes of Diversity, Assessment, and Technology

All UK professional education programs address and affirm the value of diversity in education, the use of technology to support all aspects of instructional programming, and the importance of attaining high levels of skill in assessing the outcomes of instruction. This course will provide students an opportunity to demonstrate attention to these themes and reflect on the mechanisms that this course has provided to demonstrate improved skills in these areas.

Attendance

Attendance of individuals in the class is required, and university rules regarding absences will be followed. Exchange of ideas is essential for the learning that occurs in this class. In most class meetings, students work in pairs and/or in groups. The absence of one individual affects the performance of all persons working in the group. If you are absent, it is each student's responsibility to make up the work and provide evidence that the absence was excused. Without this evidence, the absence will be considered unexcused. Two tardies, whether arriving late or leaving early, equals one unexcused absence. I reserve the right to lower your final grade one letter grade your grade for each unexcused absence.

Excused Absences: S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences:

- 1) serious illness;
- 2) illness or death of family member;
- 3) University-related trips;
- 4) major religious holidays;
- 5) other circumstances you find to be "reasonable cause for nonattendance."

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day for adding a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (257-2754).

In the case of an excused absence, it is the student's responsibility to inform the instructor of the absence, preferably in advance, but no later than one week after it. Opportunities for make-up will be discussed then.

Participation and Professionalism

Evidence of professional dedication will be expected throughout this course and in all course-related interactions. Credit for participation and professionalism will be part of the evaluation. This means, in part, that we expect your regular, punctual attendance and participation. If you miss a class for any reason, it is **your** responsibility to contact the instructor and to make up any work.

Attendance, Participation, and Professionalism together

1. Students will attend all class meetings and field placement sessions.
2. Students will complete all assignments prior to scheduled discussions and due dates (see course calendar).
3. Students will attend all class meetings and be active participants.
 - a. Active participation may include: verbal participation in discussions, asking questions or responding to peers or instructor in constructive ways, clearly demonstrating active listening (taking notes, paying attention, etc.), and communicating with the instructor via office meetings and/or email.
4. Absences will be communicated in advance and in writing to the instructor, or will do so as soon as possible.
 - a. It is the **student's** responsibility to pursue make-up work and collect materials and information from missed class meetings.

Students will conduct themselves in a professional and ethical manner.

- b. They will be punctual, presentable, respectful of peers and instructors, and they will be honest in their academic efforts.
 - c. They will attend to and engage course materials to learn and improve their knowledge, understanding, and practice as teachers.
5. Attendance, participation, and professionalism will be assessed holistically based on the above criteria, and will be used to determine the outcome of borderline grades.
6. Students are encouraged to communicate regularly with the instructor so that they are aware of their standing.
7. Students who fail to attend class, participate as expected, and/or conduct themselves professionally or ethically will be required to meet with the instructor to set improvement goals.
8. Poor conduct or lack of participation may negatively affect their course grades.
9. In cases of extreme or frequent misconduct, the instructor reserves the right to dismiss a student from class and notify the department and college for potential disciplinary action.
10. In non-emergency situations, late work will not be accepted without prior arrangements with the instructor.
 - a. The instructor reserves the right to refuse late work or to accept late work for reduced credit unless the student has made prior arrangements with the instructor.

Students with Special Needs

The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides a reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please notify your instructor and contact the Disability Resource Center (Mr. Jake Karnes, jkarnes@uky.edu) 257-2754, room 2 Alumni Gym.

The course will be conducted with openness and respect to all individuals' points of view and experience. The activities and discussions will not tolerate discrimination or prejudice toward any person or group's religion, ethnicity, disability, gender, or sexual orientation.

Classroom Behavior, Decorum, and Civility (aka, Ethics Statement)

This course and its participants will not tolerate discrimination, violence, or vandalism. EDC is an open and affirming department for all people, including those who are subjected to racial profiling, hate crimes, heterosexism, and violence. We insist that appropriate action be taken against those who perpetrate discrimination, violence, or vandalism. The University of Kentucky is an Affirmative Action and Equal Opportunity institution and affirms its dedication to non-discrimination on the basis of race, color, religion, gender, age, sexual orientation, domestic partner status, national origin, or disability in employment, programs, and services. Our commitment to non-discrimination and affirmation action embraces the entire university community including faculty, staff, and students.

All students are expected to conduct themselves in an appropriate and ethical manner during their UK classes and related field placements, as befitting graduate students, future teachers, and ambassadors for the University of Kentucky. Any unethical behavior in class may result in failure for the course and/or expulsion from the program, determined on a case-by-case basis. Faculty will follow all university due process procedures in cases of academic or ethical misconduct. Please consult the instructor if you have questions regarding this requirement.

Statement on Plagiarism

All materials generated for this class (which may include but are not limited to syllabi and in-class materials) are copyrighted. You do not have the right to copy such materials unless the professor or assistant expressly grants permission. As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writing, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic violations, for the plagiarist destroys trust among others.

Commitment to Diversity

The UK Department of Curriculum and Instruction is committed to: making diversity central to policies, decisions, and practices; evaluating progress toward diversity in the program; disseminating results widely; and using these results to strengthen diversity for the Commonwealth.

Equitable access to high quality instruction in Kentucky's secondary schools is directly and indirectly affected by this department's beliefs in and support for social diversity in schools. Moreover, the Commonwealth is directly affected by the ability of its youth to acquire high levels of skill that can then be used by them as citizens to enhance their communities and participate in the state's ongoing progress and prosperity in local, regional, national, and global contexts. Therefore, it is essential for our students to understand issues related to social diversity and make a commitment to value diversity as they engaged in teaching, research, reflection, learning, and leadership. By valuing diversity, our program is committed to enabling and empowering all people in educational contexts regardless of their race, ethnicity, gender, social class, sexual orientation, domestic partner status, and so forth.

Commitment to Addressing the Achievement Gap

The UK Department of Curriculum and Instruction aligns itself with the positions of the NCTM, NCSS, NSTA, and NCTE regarding cultural and linguistic diversity. The program seeks to underscore that cultural and linguistic diversity should be treated as integral components of public education, and that the failure to accommodate such diversity in curriculum and instruction contributes to disparities in student achievement across racial populations—a phenomenon popularly referred to as “the achievement gap.”

Commitment to Technology

The UK Department of Curriculum and Instruction is committed to teaching students so they use technology as a personal and professional tool. Our program is guided by NCATE standards, UK College of Education Technology Standards, EPSB Teacher Standards, and SPA Standards as they relate to technology. Students are required to use technology for a majority of their classes. Students use technology for class assignments, lesson plan design and preparation, class presentations, record keeping, and data analysis. Students are required to successfully complete course work focusing on using technology. Our students are required to communicate via electronic mail, use list serves, access the Internet and online databases, and use digital texts and modes for research projects and presentations. Our students use Microsoft Word, Excel, Access, and PowerPoint. They are given multiple opportunities during student teaching to videotape their teaching for use in self-analysis toward professional development. Our program offers students access to “smart” classrooms and technology labs in order to further facilitate their use of technology.