COURSE CHANGE FORM

Complete 1a – 1f & 2a – 2c. Fill out the remainder of the form as applicable for items being changed.

1.	I. General Information.						
a.	Submitted by the College of: Education Today's Date: September 21, 2010						
b.	Department/Division: Curriculum and Instruction						
c.	Is there a change in "owners	ship" of the course?		YES	□ NO ⊠		
	If YES, what college/departr	ment will offer the course	instead?				
d.	What type of change is bein	g proposed? 🛛 🔀 Major	Minor ¹ (place	cursor here for minor cha		Comment [OSC1]: Excerpt from SR 3.3.0.G.2 Definition. A request may be considered a minor	
e.	Contact Person Name: C	hrista Jackson	Email: <u>christa.jack</u> <u>.edu</u>	son@uky Phone:	<u>859.257.1607</u>	change if it meets one of the following criteria: a. change in number within the same hundred series*:	
f.	Requested Effective Date:	Semester Following	Approval OR S	pecific Term²:		o. editorial change in the course title or description which does not imply change in content or	
2.	Designation and Description	n of Proposed Course.				emphasis; c. a change in prerequisite(s) which does not imply	
a.	Current Prefix and Number	: EDC 670 Propose	ed Prefix & Number:			change in content or emphasis, or which is made necessary by the elimination or significant alteration	
b.	Full Title: Advanced Studi Teaching of Ele Mathematics		ed Title:			of the prerequisite(s); d. a cross-listing of a course under conditions set forth in SR 3.3.0.E; e. correction of typographical errors. *for the specific purposes of the minor exception	
c.	Current Transcript Title (if f	ull title is more than 40 ch	aracters): Advncd S	Stdy in Tchng of eler	n sch math	rule, the 600-799 courses are the same "hundred series," as long as the other minor change	
c.	Proposed Transcript Title (if	full title is more than 40 c	haracters):			requirements are complied with. [RC 1/15/09]	
d.	Current Cross-listing:	N/A OR Current	:ly ³ Cross-listed with (Pi	refix & Number):			
	$Proposed - \square ADD^3 Cross-$	listing (Prefix & Number):					
	Proposed – REMOVE ^{3, 4}	Cross-listing (Prefix & Nur	mber):				
e.	Courses must be described hours ⁵ for each meeting pa		eting patterns below. I	nclude number of a	ctual contact		
Cur	rent: <u>3</u> Lecture	Laboratory ⁵	Recitation	Discussion	Indep. Study		
	Clinical	Colloquium	Practicum	Research	Residency		
	Seminar Studio Other – Please explain:						
Pro	Proposed: 3 Lecture Laboratory Recitation Discussion Indep. Study						
	Clinical	Colloquium	Practicum	Research	Residency		
	Seminar	StudioO	ther – Please explain:				
f.	3.7	Letter (A, B, C, etc.)	Pass/F				
	Proposed Grading System:	Letter (A, B, C, etc.)	Pass/F	-ali			

¹ See comment description regarding minor course change. *Minor changes are sent directly from dean's office to Senate Council Chair*. If Chair deems the change as "not minor," the form will be sent to appropriate academic Council for normal processing and contact person is informed.

Courses are typically made effective for the reserved.

Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.

³ Signature of the chair of the cross-listing department is required on the Signature Routing Log.

⁴ Removing a cross-listing does not drop the other course – it merely unlinks the two courses.

⁵ Generally, undergrad courses are developed such that one semester hr of credit represents 1 hr of classroom meeting per wk for a semester, exclusive of any lab meeting. Lab meeting generally represents at least two hrs per wk for a semester for 1 credit hour. (See SR 5.2.1.)

COURSE CHANGE FORM

g.	Current number of credit hours: 3	Proposed number of credit hours:	<u>3</u>		
h.	Currently, is this course repeatable for additional credit?				
	Proposed to be repeatable for additional credit? YES NO				
	If YES: Maximum number of credit hou	rs:			
	If YES: Will this course allow multiple re	gistrations during the same semester?	YES NO		
i.	Current Course Description for Bulletin:	New developments in modern elementary melementary schools will be reviewed. Special study of new teaching methods, application techniques and trends in mathematics in the	d emphasis will be given to a of published research,		
	Proposed Course Description for Bulletin:				
j.	Current Prerequisites, if any: <u>Graduat</u>	e standing			
	Proposed Prerequisites, if any:				
k.	Current Distance Learning(DL) Status:	N/A Already approved for DL*	Please Add ⁶ Please Drop		
	*If already approved for DL, the Distance Learning Form must also be submitted <u>unless</u> the department affirms (by checking this box) that the proposed changes do not affect DL delivery.				
l.	Current Supplementary Teaching Compone	nt, if any: Community-Based Experience	Service Learning Both		
	Proposed Supplementary Teaching Compo	nent: Community-Based Experience	Service Learning Both		
3.	Currently, is this course taught off campus?				
	Proposed to be taught off campus? YES NO				
_					
4.	Are significant changes in content/teaching objectives of the course being proposed? YES NO				
	If YES, explain and offer brief rationale:				
5.	Course Relationship to Program(s).				
a.	Are there other depts and/or pgms that could be affected by the proposed change? YES NO				
	If YES, identify the depts. and/or pgms:				
b.	Will modifying this course result in a new	requirement ⁷ for ANY program?	YES NO		
	If YES ⁷ , list the program(s) here:				
6.	Information to be Placed on Syllabus.				
a.	Check box if changed to 400G- or 500-level course you must send in a syllabus and you must include the differentiation between undergraduate and graduate students by: (i) requiring additional assignments by the graduate students; and/or (ii) establishing different grading criteria in the course for graduate students. (See SR 3.1.4.)				

 $^{^6}$ You must $\it also$ submit the Distance Learning Form in order for the course to be considered for DL delivery. 7 In order to change a program, a program change form must also be submitted.

COURSE CHANGE FORM

Signature Routing Log

General Information:

Course Prefix and Number:

EDC 670

Proposal Contact Person Name:

Christa Jackson

Email:

859.257.1607

Phone:

christa.jackson@uky.edu

INSTRUCTIONS:

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

Internal College Approvals and Course Cross-listing Approvals:

Reviewing Group	Date Approved	Contact Person (name/phone/email)	/ Signature
STEM Education	9/28/201	Jennifer Wilhelm / / jennifer.wilhelm@uky.edu	offe Will
Curriculum & Instruction	10/1/10	Parker Fawson / / Parker.fawson@uky.edu	Parle Faiso
CKcommittee	10/25/10	Douglas C. 257-1824 desmit 10	& Douglas C. Smith
Ed-Faculty	u/elio	Babert 257/15happia	Robf Shapin
· ·		/ /	

External-to-College Approvals:

Council	Date Approved	Signature	Approval o Revision ⁸
Undergraduate Council			
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:			

Rev 8/09

 $^{^{\}epsilon}$ Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.

Distance Learning Form

This form must accompany <u>every</u> submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. All fields are required!

<u>Introduction/Definition</u>: For the purposes of the Commission on Colleges Southern Association of Colleges and Schools accreditation review, *distance learning* is defined as a formal educational process in which the majority of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous. A distance learning (DL) course may employ correspondence study, or audio, video, or computer technologies.

A number of specific requirements are listed for DL courses. The *department* proposing the change in delivery method is responsible for ensuring that the requirements below are satisfied at the individual course level. It is the responsibility of the instructor to have read and understood the university-level assurances regarding an equivalent experience for students utilizing DL (available at http://www.uky.edu/USC/New/forms.htm).

- 1	Course Number and Prefix: EDC 670 Date: 9/21/2010	
	Instructor Name: Christa Jackson Instructor Email: christa.jackson@uky.edu	
	Check the method below that best reflects how the majority of course of the course content will be delivered. Internet/Web-based Interactive Video Hybrid Hybrid	
	Curriculum and Instruction	
1.	How does this course provide for timely and appropriate interaction between students and faculty and amon students? Does the course syllabus conform to University Senate Syllabus Guidelines, specifically the Distance Learning Considerations?	
	Timely and appropriate interaction will be assured through weekly use of online discussion groups. Discussion will be faciliated by faculty member. The syllabus does conform to the University Senate Guidelines and includes Distance Learning Considerations and information.	ns
2.	How do you ensure that the experience for a DL student is comparable to that of a classroom-based student' experience? Aspects to explore: textbooks, course goals, assessment of student learning outcomes, etc. The textbooks, course goals, and assessment of student learning outcomes are identical to a face-to-face class. This hybrid course will offer a mixed method of course presentation. In this class, the only differences are the class-based discussion is through electronic discussion boards, class materials are available from the download sites, and assignments are distributed and collected online. Students in the course will participate in online as in-class activities, and group work. All students will participate in the same experiences.	ss. it id
3.	How is the integrity of student work ensured? Please speak to aspects such as password-protected course portals, proctors for exams at interactive video sites; academic offense policy; etc. The integrity of student work is ensured by requiring the same requirements as a face-to-face class. As an advanced graduate class, course assessment are based on developed projects rather than examinations. The security of student work is facilitated by the security affordanced of UK's Blackboard and SharePoint course system. Student presentations will be given in class face-to-face meetings on campus.	
4.	Will offering this course via DL result in at least 25% or at least 50%* (based on total credit hours required for completion) of a degree program being offered via any form of DL, as defined above? Yes If yes, which percentage, and which program(s)?	·

Abbreviations: TASC = Teaching and Academic Support Center DL = distance learning DLP = Distance Learning Programs

Distance Learning Form

This form must accompany <u>every</u> submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. **All fields are required!**

	Fifty-percent of the Master of Science in STEM Education will be delivered through distance learning.
	*As a general rule, if approval of a course for DL delivery results in 50% or more of a program being delivered through DL,
	the effective date of the course's DL delivery will be six months from the date of approval.
5.	How are students taking the course via DL assured of equivalent access to student services, similar to that of a
	student taking the class in a traditional classroom setting?
	Course readings will be avialable online through UK's library sites. Textbooks will be available for purchase
	online. The instructor will maintain virtual office hours during which time students may participate in
	online chat sessions, email, or call the instructor for a live conversation. The syllabus includes details for
	accessing student services on campus for technology suppport and library support.
	Library and Learning Resources
6.	How do course requirements ensure that students make appropriate use of learning resources?
	The discussion boards will be tracked for evidence of participation. Readings will be monitored for download.
	Downloaded readings will be the subjects of discussion boards. Assignments, require the use of technology and
	publication resources.
7.	Please explain specifically how access is provided to laboratories, facilities, and equipment appropriate to the
	course or program.
	Technology tools used in the course will be available to students in class and in the College of Education
	Instructional Technology Center (ITC). Software and peripherals will be available for check out to students
	enrolled in the course.
	Student Services
8.	How are students informed of procedures for resolving technical complaints? Does the syllabus list the entities
	available to offer technical help with the delivery and/or receipt of the course, such as the Teaching and
	Academic Support Center (http://www.uky.edu/TASC/index.php) and the Information Technology Customer
	Service Center (http://www.uky.edu/UKIT/)?
	Students are informed in the actual syllabus as well as in orientation letters emailed to the students.
9.	Will the course be delivered via services available through the Teaching and Academic Support Center?
٦.	will the course be delivered via services available through the reaching and Academic Support Center?
	Yes 🔀
	No 🗆
	If no, explain how students enrolled in DL courses are able to use the technology employed, as well as how
	students will be provided with assistance in using said technology.

Distance Learning Form

This form must accompany <u>every</u> submission of a new/change course form that requests distance learning delivery. This form may be required when changing a course already approved for DL delivery. All fields are required!

10.	Does the syllabus contain all the required components, below? 🔀 Yes		
	Instructor's virtual office hours, if any.		
	The technological requirements for the course.		
	Contact information for TASC (http://www.uky.edu/TASC/; 859-257-8272) and Information Technology		
	Customer Service Center (http://www.uky.edu/UKIT/; 859-257-1300).		
	Procedure for resolving technical complaints.		
	Preferred method for reaching instructor, e.g. email, phone, text message.		
	Maximum timeframe for responding to student communications.		
	Language pertaining academic accommodations:		
	o "If you have a documented disability that requires academic accommodations in this course,		
	please make your request to the University Disability Resource Center. The Center will require		
	current disability documentation. When accommodations are approved, the Center will provide		
	me with a Letter of Accommodation which details the recommended accommodations. Contact		
	the Disability Resource Center, Jake Karnes, Director at 859-257-2754 or jkarnes@email.uky.edu."		
	Information on Distance Learning Library Services (http://www.uky.edu/Libraries/DLLS)		
	o Carla Cantagallo, DL Librarian		
	 Local phone number: 859 257-0500, ext. 2171; long-distance phone number: (800) 828-0439 		
	(option #6)		
	o Email: dllservice@email.uky.edu		
	o DL Interlibrary Loan Service: http://www.uky.edu/Libraries/libpage.php?lweb_id=253&llib_id=16		
11.	I, the instructor of record, have read and understood all of the university-level statements regarding DL.		
	Instructor Name: Christa Jackson Instructor Signature: Christa Cackson		

EDC 670: Advanced Studies in the Teaching of Elementary School Mathematics

SYLLABUS

"Research and Reflection for Learning and Leading"

Instructor:	Christa Jackson
Office Location	143D TEB
Phone Number	257.1607
Email	Christa.jackson@uky.edu
Virtual Office	Arranged individually through email; Telesupervision and Skype
Hours	access also available
Technological Requirements	Computer with internet access or access to UK computer facilities. Access to digital video recording devices (digital camera, digital video recorder, laptop webcams)
For Technological assistance	Contact TASC at http://www.uky.edu/TASC or call 859.257.8272 Contact Information Technology Customer Service Center http://www.uky.edu/UKIT or 859.257.1300
Technical Complaints	Contact the College of Education Instructional Technology Center at 859.257.7967 or contact Information Technology Customer Service Center http://www.uky.edu/UKIT or 859.257.1300
Preferred method for contacting instructor	Email or Blackboard or SharePoint
Anticipated Response Time	2 days
Information on Distance Learning Library Service	http://www.uky.edu/Libraries/DLLS
DL Librarian	Carla Cantagallo, DL Librarian; local 859.257.0500 ext 2171 Long distance: 800.828.0439, option 6 dllservice@email.uky.edu
DL Interlibrary Loan Service	http://www.uky.edu/Libraries/libpage.php?lweb_ide=253&llib_id16

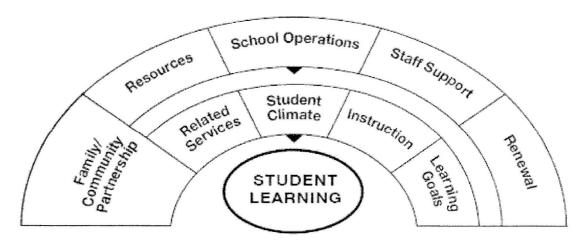
UK College of Education Professional Themes

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.

Leadership, and specifically Teacher Leadership, within our framework of *Research and Reflection for Learning and Leading*, is informed by the "Framework for School Leadership Accomplishments" (Bellamy, Fulmer, Murphy, & Muth, 2007, p. 34). In this framework, *student learning* is the central objective and it is accomplished through nine interactive, collaborative efforts by diverse stakeholders (see Figure 1 below). Permission to use this model was granted by Bellamy and his colleagues.

Figure 1. Framework for School Leadership Accomplishments



This framework for teacher leadership was also informed by emerging descriptions of roles and responsibilities teachers and other educational practitioners assume in schools (e.g., Crowther, 2009; Crowther, Kaagan, Ferguson, & Hann, 2002; Katzenmeyer & Moller, 2009; Merideth, 2007; Murphy, 2005) and by strategies recommended for developing teachers for supporting school leadership (O'Hair & O'Dell, 1995; Stone & Cuper, 2006; Zepeda, Mayers, & Benson, 2003). The intent is to provide diverse opportunities for veteran and novice teachers in their preparation for assuming needed academic leadership responsibilities in their fields (Blase & Blase, 2006; Harrison & Killion, 2007).

This framework is designed to help actualize the theme, *Research and Reflection for Learning and Leading*, and thus prepare a skilled and influential group of leaders who will work as members of learning communities focused on the essential goal of schools: student learning.

Course Overview

Prerequisites:

Graduate standing

Course Overview:

This course is a seminar designed to study theories and issues concerning the teaching of elementary school mathematics based on recommendations from the *Principles and Standards* for School Mathematics, Kentucky's Mathematics Core Content for Assessment, and Kentucky's Program of Studies in Mathematics. A primary focus will be on enhancing teacher's ability to use **Research and Reflection for Learning and Leading**. In particular, teachers will learn about mathematics content, instructional approaches, and assessment strategies appropriate for students in grades P-5.

Course Objectives/Learning Targets

- Students will understand the Standards documents and how to effectively implement them in the elementary mathematics classroom.
- Students will determine children's conceptions and misconceptions in content-specific areas in mathematics.
- Students will understand research in mathematics education in relation to elementary students.
- Students will enhance their understanding of mathematics as they experience and critique mathematics curricula.
- Students will explore instructional strategies that improve and deepen students understanding of mathematics.

Course Delivery

This proposed course is designed as a hybrid course. Course participants will attend class on campus for the first half of the semester. Thereafter, online distance learning instruction will be conducted throughout the second half of the semester. Students will participate in online discussions, collaborate on group projects, and work on independent research projects during the distance learning segment of the course. Class will meet on campus two times during the second part of the semester so students can present their projects.

Grading Scale

100 – 91: A 90 – 81: B 80 – 71: C 70 and below: E

Course Assessment Tasks

Assignments must be submitted on or before the due dates given in the course schedule. **Five percent will be deducted from the value of an assignment for each day it is late**, unless prior

arrangements have been made with the instructor. Full descriptions of these assignments and evaluation rubrics for each are appended to this syllabus.

Task	Task Description	Standards Alignment
Personal Choice Presentation	After investigating a content and process strand from the NCTM standards, students will lead a class discussion and prepare at least three activities based on their content and process strand. Presentations should consist of ways to address students' misconceptions.	KTS 1 - 10
Reflections	Students will write critical or reflective responses to primary research and other readings; write reflections on course assignments and in-class discussions and activities; participate in online discussions; share presentations, individual, group or both.	KTS 1, 7-10
K-5 Student Interviews	Students will interview two K-5 students and write a paper on the student's thinking (i.e., conceptions, misconceptions, and understanding) and the mathematical instruction they will implement with the students to deepen their mathematical knowledge.	KTS 1, 7, 8, 10
Elementary Mathematics Curriculum Analysis	Students will analyze and critique mathematics curriculum and write a paper describing the curriculum, integration to the NCTM and KY standards, and the ways it does or does not promote student learning.	KTS 2, 4, 10

Course Outline

Weeks 1-2	Introduction and overview of Principles and Standards for School Mathematics, Kentucky Standards, and Common Core Standards
Week 3-5	Teaching and learning mathematics with understanding
Weeks 6-8	Effective questioning and other assessment strategies to deepen mathematical understanding

Weeks 9-11	Examining students' error patterns to build understanding
Weeks 12-14	Critiquing and evaluating elementary mathematics curricula
Weeks 15-16	Designing mathematical tasks

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 <u>prior</u> 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, ikarnes@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 or 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 inclass 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.

List of References

The following texts align with the Kentucky Teacher (Initial) Standards, NCATE/NCTM Standards, NCATE/NSTA Standards, Common Core Standards, Proposed Kentucky Teacher Leader Standards, ISTE, and EPSB theme.

KY Learner Goals and Expectations, Program of Studies and Core Content – online documents (or their replacements as they become available)

Subject-area Professional Association (SPA) K-12 standards.

- Common Core Standards and their related documents (www.commoncore.org)
- Additionally, the following list reflects suggested readings that would guide the curriculum of the course
- Allsopp, D. H., Kyger, M. M., & Lovin, L. H. (2007). *Teaching mathematics meaningfully:*Solutions for reaching struggling learners. Baltimore, MD: Paul H. Brooks Publishing.
- Ashlock, R. B. (2006). Error patterns in computation: Using error patterns to improve instruction. Upper Saddle River, NJ: Pearson Merrill Prentice Hall.
- Boaler, J. (2002). Experiencing school mathematics: Traditional and reform approaches to teaching and their impact on student learning revised and expanded edition. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Bransford, J.; Brown, A.L.; & Cocking, R.R. (2000). *How people learn: Brain, mind, experience, and school,* Expanded Edition. Arlington: NSTA Press.
- Carpenter, T. P., Franke, M. L., & Levi, L. (2003). *Thinking mathematically: Integrating arithmetic & algebra in elementary school.* Heinemann.
- Erlwanger, S. H. (1973). Benny's conception of rules and answers in IPI mathematics. *Journal of Children's Mathematical Behavior, 1, 2* 7-26, Reprinted in 2004, *Classics in Mathematics Education Research*, Reston, VA, NCTM.
- Fosnot, C. T., & Dolk, M. (2001). Young mathematicians at work: Constructing number sense, addition, and subtraction. Freudenthal Institute, The Netherlands: Heinemann.
- Fraivillig, J. L., Murphy, L. A., & Fuson, K. C. (1999). Advancing children's mathematical thinking. Journal for Research in Mathematics Education, 30, 148-170.
- Gabriel, J. (2005). *How to thrive as a teacher leader*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Hiebert, J., Carpenter, T. P., Fennema, E., Fuson, K. C., Wearne, D., Murray, H., Olivier, A., & Human, P. (1997). *Making sense: Teaching and learning mathematics with understanding*. Portsmouth, NH: Heinemann.
- Hord, S. (Ed.). (2003). Learning together, leading together: Changing schools through professional learning communities. New York: Teachers College Press.
- Klein, A. S., Beishuizen, M., & Treffers, A. (1998). The empty number line in Dutch second grade. Journal for Research in Mathematics Education, 29, 443-464.

- Li, Y. (2000). A comparison of integer addition and subtraction problems presented in American and Chinese mathematics textbooks. *Journal for Research in Mathematics Education*, 31, 234-241.
- Lieberman, A., & Miller, L. (1992). *Teachers-Their world and their work*. New York: Teachers College Press.
- Lobato, J., Clarke, D., & Ellis, A. B. (2005). Initiating and eliciting in teaching: A reformulation of telling. *Journal for Research in Mathematics Education 36(2)*, 101-136.
- Loughran, J. (2006). *Developing a pedagogy of teacher education: Understanding teaching and learning about teaching.* New York, NY: Routledge.
- Ma, L. (1999). Knowing and teaching elementary mathematics: Teachers' understanding of fundamental mathematics in China and the United States. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- Martinez, M. (2004). *Teachers working together for school success*. Thousand Oaks, CA: Corwin Press.
- National Council of Teachers of Mathematics. (2000). *Principles and standards for school mathematics*. Reston, VA: NCTM.
- National Council of Teachers of Mathematics. (1989). *Curriculum and evaluation standards for school mathematics*. Reston, VA: NCTM.
- National Council of Teachers of Mathematics (1991). *Professional standards for teaching mathematics*. Reston, VA: NCTM.
- National Research Council. (2001). Adding it up: Helping children learn mathematics. J. Kilpatrick, J. Swafford, and B. Findell (Eds.). Mathematics Learning Study Committee, Center for Education, Division of Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.
- Noble, T., Nemirovsky, R., Wright, T., & Tierney, C. (2001). Mathematics learning in multiple environments. *Journal for Research in Mathematics Education*, *32*, 85-108.
- Skemp, R. R. (1977). Relational understanding and instrumental understanding. *Mathematics Teacher*, 77, 20-26.
- Wood, T., Williams, G., & McNeal, B. Children's mathematical thinking in different classroom cultures. *Journal for Research in Mathematics Education*, *37*(3), 222-255.