Instructor	Office	Phone	Email
Dr. Janet Tasse	II GRH 1104	Off.: 270-745-5306	Janet.tassell@wku.edu
	Office Hours:	Fax: 270-745-6322	
	Monday: 8-10 a.m.;		
	Tuesday: 10:30 a.m2:30 p.m.		
	Friday: Online Office Hours		
	8:00 AM - 12:00 PM		

ELED 571 Leadership, Math and Technology Education Fall 2019 Syllabus

Prerequisite: Elementary Teacher Certificate or Instructor Permission

Bowling Green, KY 42101-1030

Required Texts:

• McGatha, M., Bay-Williams, J., Kobett, B. M., & Wray, J. A. (2018). *Everything you need for mathematics coaching: Tools, plans, and a process that works for any instructional leader.* Thousand Oaks, CA: Corwin.

Required Special Instructional Materials Needed:

Required Hardware, Software, and File Formats:

Hardware:

- PC/Windows-based computer with Internet Access
- Web camera and microphone

Software:

• Microsoft Office for Windows (Word, Excel, Access, PowerPoint), web browser

File Format:

• You must save MS Word files as .doc (not .docx or .rtf) format.

<u>Media</u>: USB Drive (flash drive) highly recommended. Since many students work on more than one computer, a flash drive makes it more convenient to transport files you are working on.

Course Description:

This course focuses on increasing elementary grades teachers' knowledge of mathematics and pedagogy, leadership development, current research on mathematics education, and advances in technology.

"Leadership and pedagogy for integrating mathematics and technology initiatives within elementary school settings."

Course Objectives:

As the current graduate course offerings do not include courses that accomplish these standards, this course is designed to fill a great need for Elementary Mathematics Specialist Endorsement. This course is connected to the AMTE Elementary Mathematics Specialist Standard III -- Leadership knowledge and skills:

- Use professional resources to be informed about critical issues related to mathematics teaching and learning.
- Select from a repertoire of methods to communicate professionally about students, curriculum, instruction, and assessment to educational constituents.
- Plan, develop, implement, and evaluate professional development programs at the school and district level and support teachers in systematically reflecting and learning from practice.

At the conclusion of the course students will be able to:

- develop their understanding of personal leadership and skills in leadership that apply to elementary mathematics and technology integration.
- develop a plan for Mathematics and Technology Leadership, incorporating actions for how to improve and a design for implementation.

Students will be evaluated based on their performance in completing assignments such as the following:

- Through the use of technology integration, interview and collaborate with a colleague/teacher using mathematics coaching tools. (Interview Technology Product)
- Develop a Blog Journal correlating to the readings regarding the impact of leadership and technology integration of mathematics instruction in their classroom and school. (Blog Journal)
- Apply personal leadership assessment results to discussion board team work. (Discussion Board)
- Develop a personal leadership plan in mathematics and technology education. (Written Plan)

Standards addressed in this course and Critical Performance Indicator:

Kentucky Teacher Performance Standards (KTPS):

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- KTPS 3: Learning Environments The teacher shall work with others to create environments that:
 - Support individual and collaborative learning; and
 - Encourage positive social interaction, active engagement in learning, and self-motivation.
- KTPS 8: Instructional Strategies: The teacher shall understand and use and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections and to build skills to apply knowledge in meaningful ways.
- KTPS 9: Professional learning and ethical practice. The teacher shall engage in ongoing professional learning, shall use evidence to continually evaluate his or her practice, particularly the effects of his or her choices and actions on others, such as learners, families, other professionals, and the community and shall adapt practice to meet the needs of each learner.
- KTPS 10: Leadership and collaboration. The teacher shall seek appropriate leadership roles and opportunities to:
 - Take responsibility for student learning;
 - Collaborate with learners, families, colleagues, other school professional, and community members to ensure learner growth; and
 - Advance the profession.

National Council of Teachers of Mathematics (NCTM) combined with NCSM:

- Leading the pursuit of a better mathematics future for every child
- Assuming and exercising professional responsibility and accountability for their own practice
- Assuming and exercising professional responsibility and accountability of the teachers they lead

NCATE/NCTM Elementary Mathematics Specialist Standards (2003) aligned to ELED 571 Standards for Elementary Mathematics Specialists

Standard 3: Knowledge of Mathematical Communication

Candidates communicate their mathematical thinking orally and in writing to peers, faculty, and others.

3.1 Communicate their mathematical thinking coherently and clearly to peers, faculty, and others.

3.2 Use the language of mathematics to express ideas precisely.

3.3 Organize mathematical thinking through communication.

3.4 Analyze and evaluate the mathematical thinking and strategies of others.

Standard 6: Knowledge of Technology

Candidates embrace technology as an essential tool for teaching and learning mathematics.

6.1 Use knowledge of mathematics to select and use appropriate technological tools, such as but not limited to, spreadsheets,

dynamic graphing tools, computer algebra systems, dynamic statistical packages, graphing calculators, data-collection devices, and presentation software.

Standard 7: Dispositions

Candidates support a positive disposition toward mathematical processes and mathematical learning.

- 7.1 Attention to equity
- 7.2 Use of stimulating curricula
- 7.3 Effective teaching
- 7.4 Commitment to learning with understanding

7.5 Use of various assessments

7.6 Use of various teaching tools including technology

Standard 8: Knowledge of Mathematics Pedagogy

Candidates possess a deep understanding of how students learn mathematics and of the pedagogical knowledge specific to mathematics teaching and learning.

8.1 Selects, uses, and determines suitability of the wide variety of available mathematics curricula and teaching materials for all students including those with special needs such as the gifted, challenged and speakers of other languages.

8.2 Selects and uses appropriate concrete materials for learning mathematics.

8.3 Uses multiple strategies, including listening to and understanding the ways students think about mathematics, to assess students' mathematical knowledge.

8.4 Plans lessons, units and courses that address appropriate learning goals, including those that address local, state, and national mathematics standards and legislative mandates.

- 8.5 Participates in professional mathematics organizations and uses their print and on-line resources.
- 8.6 Demonstrates knowledge of research results in the teaching and learning of mathematics.
- 8.7 Uses knowledge of different types of instructional strategies in planning mathematics lessons.

8.8 Demonstrates the ability to lead classes in mathematical problem solving and in developing in-depth conceptual understanding, and to help students develop and test generalizations.

8.9 Develop lessons that use technology's potential for building understanding of mathematical concepts and developing important mathematical ideas.

Standard 14: Field-Based Experiences

Candidates complete field-based experiences in mathematics classrooms.

14.1 Engage in a sequence of planned opportunities prior to student teaching that includes observing and participating in elementary mathematics classrooms under the supervision of experienced and highly qualified teachers.

14.2 Experience full-time student teaching in elementary-level mathematics that is supervised by an experienced and highly qualified teacher and a university or college supervisor with elementary mathematics teaching experience.

14.3 Demonstrate the ability to increase students' knowledge of mathematics.

III. Leadership knowledge and skills.

- Use professional resources such as professional organization networks, journals, and discussion groups to be informed about critical issues related to mathematics teaching and learning, e.g., policy initiatives and curriculum trends.
- Select from a repertoire of methods to communicate professionally about students, curriculum, instruction, and assessment to educational constituents—parents and other caregivers, school administrators, and school boards.
- Plan, develop, implement, and evaluate professional development programs at the school and district level and support teachers in systematically reflecting and learning from practice.
- Evaluate educational structures and policies that affect students' equitable access to high quality mathematics instruction, and act professionally to assure that all students have appropriate opportunities to learn important mathematics.
- Use leadership skills to improve mathematics programs at the school and district levels, e.g., develop appropriate classroomor school-level learning environments; build relationships with teachers, administrators and the community; develop evidence-based interventions for high and low-achieving students; collaborate to create a shared vision and develop an action plan for school improvement; partner with school-based professionals to improve each student's achievement; mentor new and experienced teachers to better serve students.

International Society for Technology Education (ISTE) Standards for Educators aligned to ELED 571:

Standard 2. Leader; Standard 3. Citizen; Standard. 4 Collaborator

Required Experiences	ELED 571
A. depth of knowledge beyond elementary preparation	
B. learn how to provide professional development in math	EMS Candidates learn from a professional development program module and prepare a professional development plan for their school.
C. deepen understanding of how math procedures work	EMS Candidates work on problems, examine student work, and discuss on Discussion Board
D. promote mathematical reasoning, sense making, problem solving, computational fluency, justification	
E. how to use different texts and design instruction to meet individual learning needs	EMS Candidates analyze math textbooks and mathematical tasks to determine level of complexity.
F. learn how to determine what students know and understand, using formative assessments as guide	
G. provide strategies and resources for teaching mathematics, including differentiated instruction	
H. ensure understanding of vertical nature of mathematics K-8	

All assignments are due by midnight of the due date.

LOLDB: Lenses on Learning Discussion Board (in BlackBoard) TDB: Technology Discussion Board BJ: Blog Journal – Blackboard

Course Evaluation: (based on accumulated points)

Content Strands for Course	Points
Lenses on Learning:	
4 sessions	255
Technology:	
Personal Introduction with Technology	10
Multimedia Presentation of Interview Experience &	200
Learning—2 parts (100 points per part)	
Leadership:	
Leadership Blog Entries (80 pts)	140
MTL Growth Plan (100 pts)	100
TOTAL	705

Grading Scale
A = 90% = 635-705
B = 80% = 564-634
C = 70% = 494-563

Class Time Management:

Management of your personal "class time" is one of the most difficult issues for students in an online class. Most face-to-face classes meet three hours a week and students are expected to spend up to six hours per week in class preparation and assignments. Therefore, you can expect to spend up to nine hours per week on any university course whether face-to-face or online. (Travel time has been a major consideration for many of you in face-to-face classes.) It is not advisable to procrastinate not only because of the time involved but the technical issues you may face and the time required to teach your lesson.

Submission of Assignments:

- 1. You will maintain your own blog journal through Blackboard. It should be private but allow your instructors access to read your reflections.
- 2. There will be various methods used for class discussions. Some will be Discussion Boards through BlackBoard; however, other Web 2.0 discussion tools will also be used.
- 3. The preferred method for submission of your assignments is to upload your assignment file through BlackBoard.
 - a. View the assignment description under Assignments in our BlackBoard course.
 - b. Click on the link "View/Complete Assignment: Assignment Name" under the assignment description.
 - c. Type a comment to your instructor about your assignment. It will not submit if you do not type something.
 - d. Click "Browse" and locate your assignment file on your hard drive or diskette.
 - e. If you have another file to upload, click "Add Another File" and Browse to locate your file. Be sure to add all files that you need to submit <u>before</u> you click Submit. You cannot come back to this screen.
 - f. Click "Submit" to send your file to your instructor.

Emails to Instructor:

1. ALL emails should be to both of your instructors and MUST be in the following format:

ELED 571, First Initial, Last Name, Topic

Emails without this format will (gently) be returned to you to revise the subject. We are not trying to be rude! Our email programs sort mail according to the class number. If you do not use this standard email format, your message may get lost and many have been lost in past courses. Please help us with this!

2. Please set your email options such that when you reply to any message, it will include the original message. When you email me, my email software will retain your original message when I reply. If you reply back, your message should retain both your original message and my response. This helps to remind me of our ongoing conversations. Thanks!!

3. Please <u>avoid</u> emails with "humorous" attachments or emoticons, texting abbreviations, and viruses by using virus-checking software. Use correct English grammar and spelling in all emails to your instructor. Remember that your emails are professional communication with your instructor.

Naming Files:

In general, all files submitted should begin with your last name, then a period, then the module code, and a description of the assignment. For example, "Tassell.Leadership.Plan.doc".

Student Disability Services: In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. The phone number is 270.745.5004 [270.745.3030 V/TTY] or email at sarc@wku.edu. Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.

Statement of Diversity: We believe that diversity issues are of major import to student and school success. We fundamentally believe in and support the value of heterogeneous groups and the richness of benefits when students are involved with diverse populations, settings, and opinions. This course is designed on the basic assumption that learning is something we all actively engage in by choice and personal commitment. The format of this class will be a community of scholars, each with their rights and responsibilities of membership. We will not tolerate immoral, illegal, or unethical behavior or communication from one another, and we will respect one another's rights to differing opinions.

Plagiarism: To represent written work taken from another source as one's own is plagiarism. Plagiarism is a serious offense. The academic work of a student must be his/her own. One must give any author credit for source material borrowed from him/her. To lift content directly from a source without giving credit is a flagrant act. To present a borrowed passage without reference to the source after having changed a few words is also plagiarism. Students who commit plagiarism or any other act of academic dishonesty will receive a failing grade for the course and may be subject to dismissal from the program. Student work may be subject to review and checks using plagiarism detection software.

Sexual Misconduct/Assault Policy:

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at <u>https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf</u> and

Discrimination and Harassment Policy (#0.2040) at <u>https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf</u>.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are "Responsible Employees" of the University and **MUST** report what you share to WKU's Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU's Counseling and Testing Center at 270-745-3159.

For further information and support you may choose to go to the Student Accessibility Resource Center: <u>https://www.wku.edu/sarc/</u>

Other helpful links of information related to syllabi questions you may have might be found at: <u>http://www.wku.edu/syllabusinfo/</u>

Course Assignments, Projects, and Evaluation

Mathematics Content:

Lenses on Learning Discussion Board (255 Points)

Lenses on Learning is a set of seminars designed to help instructional leaders think through the ideas that underlie standards-based reform in elementary mathematics and relate those ideas to their own work. Instructional leaders consider the following topics: the nature of mathematical understanding, the development of children's mathematical understanding, discourse-based mathematics

instruction, and professional development for teachers. In this course we will complete Module 1: Instructional Leadership in Mathematics. Participation in each of the four sessions will be worth 75 points each.

Technology:

Personal Introduction with Technology (10 points)

Using a Web 2.0 tool, introduce yourself to the class. Tell us about your leadership or coaching experience in mathematics instruction. (See <u>Create Excellence Website</u> in the Resources section for other Web 2.0 tool ideas.)

Leadership:

Math Coaching Interview Part 1 (100 pts.) and Part 2 (100 pts.)

Collaborate with a colleague or current teacher in grades K-6 to interview and observe. Topics will include the shifts in math education, the Standards for Mathematical Practice, and instructional planning.

Leadership Blog Entries (140 pts)

Participants will have an opportunity to discuss and debrief math leadership questions.

ELED 571 Culminating Project -- Math, Technology, and Leadership Growth Plan (100 points)

If you are completing the Elementary Math Specialist Endorsement, yYou will begin this portfolio in the three courses during the first during which ever of the pedagogy courses you start with by developing a Professional Growth Plan (PGP) for Leadership (ELED 571), Math (ELED 572), and Technology (ELED 573). Your final portfolio will be submitted in the third course. You must upload your project to Electronic Portfolio by the end of the semester or you will receive an incomplete for the course!!

Blog Journals and Discussion Boards:

Refer to course calendar for Blog Journals or Discussion Board due dates. Rubric below will be used to grade all discussion posts and responses.

Scoring Rubric for Blog Journals and Discussion Board (partial points may be given)

Rubric	Quality of Participation
scores	D'a se in Albert d'action a basile la cine
93-100%	• Discussion/blog postings are submitted on time.
	• Contributions are meaningful and demonstrate understanding and synthesis of ALL assigned activities,
	readings and videos.
	• Discussion forums: In-depin thought and contributions that encourage intellectual growth of other portion portion in a student
	participants. APA references are added for further information located by student.
	• Reflections: demonstrates in-depth thought and reflection. APA references added often.
	• Adds significant resources such as links to articles, websites, videos, blogs, podcasis, etc. that contribute to the week's terries and ties them into your discussion
	to the week's topics and thest them into your discussion.
	Discussion postings are respective and courteous. Thus on more comments are added to other students? no sta
70.020/	Two or more comments are added to other students posts.
70-92%	• Discussion/blog postings are submitted on time.
	• Contributions are meaningful and demonstrate understanding and of most assigned activities, readings
	and videos.
	• Discussion forums: Some thought and contributions encourage intellectual growth of other participants.
	One APA reference added for further information located by student.
	• Reflections: demonstrates some thought and reflection. APA reference added sometimes.
	• Adds a few resources such as links to articles, websites, videos, blogs, podcasts, etc. that contribute to the week's tenior and tion them into your discussion
	Discussion mostings and thest them into your discussion.
	• Discussion postings are respectful and courteous.
40, 600/	• One comment added to other students' posts.
40-09%	• Discussion/blog postings are late.
	• Overall contribution/response is lacking in that readings are only sometimes incorporated into the
	discussions and postings are not always on topic.
	• Discussion forums: Adds one resource that does not significantly contribute to the week's topics or does
	not really the them into the discussion. No APA reference added.
	Reflections:
	Discussion postings are respectful and courteous.

Rubric	Quality of Participation	
scores		
1-39%	 Overall contributions are not meaningful. For example, the posts do not go beyond "I agree" or "Good post." Very little evidence of having read course materials or giving any in-depth thought to the topic. No additional resources added. 	
0	No contribution to discussion or reflection.	