1. General Information.
   a. Submitted by the College of:  **Education**  
      Today’s Date:  **September 9, 2011**
   b. Department/Division:  **STEM**
   c. Contact person name:  **Christine Schnittka**
      Email:  **christine.schnittka@uky.edu**
      Phone:  **859-257-1979**
   d. Requested Effective Date:  
      - [ ] Semester following approval  
      - [x] Specific Term/Year¹:  **F 2012**

2. Designation and Description of Proposed Course.
   a. Prefix and Number:  **SEM 445**
   b. Full Title:  **Applications of Teaching Middle Level Mathematics**
   c. Transcript Title (if full title is more than 40 characters):  **Apps of Tchng Middle Level Math**
   d. To be Cross-Listed² with (Prefix and Number):  
   e. Courses must be described by at least one of the meeting patterns below. Include number of actual contact hours³ for each meeting pattern type.
      - 2 Lecture
      - ______ Laboratory¹
      - ______ Recitation
      - ______ Discussion
      - ______ Indep. Study
      - 9 Clinical
      - ______ Colloquium
      - ______ Practicum
      - ______ Research
      - ______ Residency
      - ______ Seminar
      - ______ Studio
      - ______ Other – Please explain:  
   f. Identify a grading system:  
      - [x] Letter (A, B, C, etc.)
      - [ ] Pass/Fail
   g. Number of credits:  **3**
   h. Is this course repeatable for additional credit?  
      - [ ] YES
      - [x] NO
      If YES:  Maximum number of credit hours:  
      If YES:  Will this course allow multiple registrations during the same semester?  
      - [ ] YES
      - [x] NO
   i. Course Description for Bulletin:  
      A study of theoretical models and methodological strategies for teaching mathematics at the middle school level. The course will include a critical analysis of equity issues in middle school mathematics, using manipulatives across the curriculum, and strategies for promoting adolescents’ curiosity in mathematics. This course is in conjunction with an eight-week field experience, consisting of approximately 2.5 weeks at the start of the semester and 5.5 weeks during the middle of the semester. Candidates will also attend their field placement at other times (e.g., district pre-planning, flexible Fridays) during the semester.
   j. Prerequisites, if any:  **SEM 345**  
      or permission of instructor.
   k. Will this course also be offered through Distance Learning?  
      - [x] YES
      - [ ] NO
   l. Supplementary teaching component, if any:  
      - [ ] Community-Based Experience
      - [x] Service Learning
      - [ ] Both

¹ Courses are typically made effective for the semester following approval. No course will be made effective until all approvals are received.
² The chair of the cross-listing department must sign off on the Signature Routing Log.
³ In general, undergraduate courses are developed on the principle that one semester hour of credit represents one hour of classroom meeting per week for a semester, exclusive of any laboratory meeting. Laboratory meeting, generally, represents at least two hours per week for a semester for one credit hour. (from SR 5.2.1)
⁴ You must also submit the Distance Learning Form in order for the proposed course to be considered for DL delivery.
3. Will this course be taught off campus? [ ] YES  [ ] NO

4. Frequency of Course Offering.
   a. Course will be offered (check all that apply):  [x] Fall  [x] Spring  [x] Summer
   b. Will the course be offered every year?  [ ] YES  [x] NO
      If NO, explain:  

5. Are facilities and personnel necessary for the proposed new course available?  [ ] YES  [x] NO
      If NO, explain:  

6. What enrollment (per section per semester) may reasonably be expected?  25

7. Anticipated Student Demand.
   a. Will this course serve students primarily within the degree program?  [ ] YES  [x] NO
   b. Will it be of interest to a significant number of students outside the degree pgm?  [x] YES  [ ] NO
      If YES, explain:  

8. Check the category most applicable to this course:
   [x] Traditional – Offered in Corresponding Departments at Universities Elsewhere
   [ ] Relatively New – Now Being Widely Established
   [ ] Not Yet Found in Many (or Any) Other Universities

9. Course Relationship to Program(s).
   a. Is this course part of a proposed new program?  [ ] YES  [x] NO
      If YES, name the proposed new program:  
   b. Will this course be a new requirement\(^5\) for ANY program?  [x] YES  [ ] NO
      If YES\(^5\), list affected programs:  Middle School Teacher Education

10. Information to be Placed on Syllabus.
    a. Is the course 400G or 500?  [ ] YES  [x] NO
       If YES, the differentiation for undergraduate and graduate students must be included in the information required in 10.b. You must include: (i) identification of additional assignments by the graduate students; and/or (ii) establishment of different grading criteria in the course for graduate students. (See SR 3.1.4.)
    b. [x] The syllabus, including course description, student learning outcomes, and grading policies (and 400G-/500-level grading differentiation if applicable, from 10.a above) are attached.

\(^5\) In order to change a program, a program change form must also be submitted.
NEW COURSE FORM

Signature Routing Log

General Information:

Course Prefix and Number: SEM 445
Proposal Contact Person Name: Christine Schnittka Phone: 859-257-1979 Email: christine.schnittka@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:

<table>
<thead>
<tr>
<th>Reviewing Group</th>
<th>Date Approved</th>
<th>Contact Person (name/phone/email)</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSTE Program Faculty</td>
<td>9/8/2011</td>
<td>S.N. Wood / 850-322-4087 / <a href="mailto:susan.wood@uky.edu">susan.wood@uky.edu</a></td>
<td></td>
</tr>
<tr>
<td>Curriculum &amp; Instruction</td>
<td>10/7/2011</td>
<td>P. Fawson / 859-257-0767 / <a href="mailto:parker.fawson@uky.edu">parker.fawson@uky.edu</a></td>
<td></td>
</tr>
<tr>
<td>STEM Education</td>
<td>10/13/2011</td>
<td>J. Wilhelm / 859-257-0767 / <a href="mailto:jennifer.wilhelm@uky.edu">jennifer.wilhelm@uky.edu</a></td>
<td></td>
</tr>
<tr>
<td>C&amp;C Committee</td>
<td>11/15/11</td>
<td>Doug Smith / 7-1824 / <a href="mailto:dcsmit1@uky.edu">dcsmit1@uky.edu</a></td>
<td></td>
</tr>
<tr>
<td>CoEd Faculty</td>
<td>12/13/11</td>
<td>Steve Parker / 7-8847 / <a href="mailto:spark01@uky.edu">spark01@uky.edu</a></td>
<td></td>
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</table>

External-to-College Approvals:

<table>
<thead>
<tr>
<th>Council</th>
<th>Date Approved</th>
<th>Signature</th>
<th>Approval of Revision⁶</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate Council</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Graduate Council</td>
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<td></td>
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</tr>
<tr>
<td>Health Care Colleges Council</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senate Council Approval</td>
<td></td>
<td>University Senate Approval</td>
<td></td>
</tr>
</tbody>
</table>

Comments:


⁶ Councils use this space to indicate approval of revisions made subsequent to that council’s approval, if deemed necessary by the revising council.
SEM 445: Applications of Teaching Middle Level Mathematics

Syllabus

“Research and Reflection for Learning and Leading”

<table>
<thead>
<tr>
<th>Instructor:</th>
<th>Christa Jackson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office Location</td>
<td>105E TEB</td>
</tr>
<tr>
<td>Phone Number</td>
<td>257-8974</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:christa.jackson@uky.edu">christa.jackson@uky.edu</a></td>
</tr>
<tr>
<td>Virtual Office Hours</td>
<td>Arranged individually through email; Telesupervision and Skype access also available</td>
</tr>
<tr>
<td>Preferred method for contacting instructor</td>
<td>Email</td>
</tr>
<tr>
<td>Anticipated Response Time</td>
<td>2 days</td>
</tr>
</tbody>
</table>

Course Description
A study of theoretical models and methodological strategies for teaching mathematics at the middle school level. The course will include a critical analysis of equity issues in middle school mathematics, using manipulatives across the curriculum, and strategies for promoting adolescents’ curiosity in mathematics. This course is in conjunction with an eight-week field experience, consisting of approximately 2.5 weeks at the start of the semester and 5.5 weeks during the middle of the semester. Candidates will also attend their field placement at other times (e.g., district pre-planning, flexible Fridays) during the semester.

Prerequisite
SEM 345 or consent of the instructor.

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 lifelong 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 Learning Targets, Outcomes, and Assessments
This course has been designed to provide students with opportunities to acquire skills, knowledge, conceptual understanding, classroom experience, and practice teaching in their preferred content area(s). These learning targets are aligned with Senate Bill 1 expectations including, Kentucky Core Academic Standards, Assessment Literacy, College & Career Readiness, and Characteristics of Highly Effective Teaching and Learning (CHEMT). By the end of this course, students will have gained the following:

<table>
<thead>
<tr>
<th>Learning Target/Outcome</th>
<th>Assessment (Formative/Summative)</th>
</tr>
</thead>
<tbody>
<tr>
<td>By the conclusion of SEM 445, students will:</td>
<td>Student performance will be assessed for the following:</td>
</tr>
<tr>
<td><strong>Apply their understanding of differentiated instruction from the perspective of</strong></td>
<td>• The student will prepare weekly reflections on articles related to mathematics education of middle school students on differentiation instruction (Formative).</td>
</tr>
<tr>
<td><strong>students’ gender, race, language, culture, and social class</strong></td>
<td>• The student will design an equitable mathematics classroom environment (Summative)</td>
</tr>
<tr>
<td></td>
<td>• The student will prepare a mathematics teaching philosophy about what mathematics, what it means to learn mathematics, and what it means to be a successful mathematics teacher (Summative)</td>
</tr>
<tr>
<td></td>
<td>• The student will respond to the statement “all students can learn mathematics” and explain how they foresee this playing out in their future classroom (Formative)</td>
</tr>
<tr>
<td><strong>Prepare, develop, evaluate, and demonstrate the effective use of</strong></td>
<td>• The student will prepare weekly reflections on articles related to mathematics education of middle school students (Formative).</td>
</tr>
<tr>
<td><strong>manipulative materials for teaching mathematics</strong></td>
<td>• The student will research, analyze, and evaluate manipulatives used to facilitate mathematical understanding among middle level students. The student will select a mathematical topic and demonstrate how manipulatives are used to enhance student</td>
</tr>
</tbody>
</table>


### Develop an understanding of how students learn mathematics
- The student will prepare weekly reflections on articles related to mathematics education of middle school students (Formative).
- The student will respond to the statement “all students can learn mathematics” and explain how they foresee this playing out in their future classroom (Formative).
- The student will design an equitable mathematics classroom environment (Summative).

### Describe and implement instructional strategies and methods for instructional planning and assessment
- The student will prepare weekly reflections on articles related to mathematics education of middle school students on differentiation instruction (Formative).
- The student will design an equitable mathematics classroom environment (Summative).
- The student will prepare a mathematics teaching philosophy about what mathematics, what it means to learn mathematics, and what it means to be a successful mathematics teacher (Summative).
- The student will respond to the statement “all students can learn mathematics” and explain how they foresee this playing out in their future classroom (Formative).

## Course Delivery
This proposed course is designed as a face-to-face course with a portion of the course devoted to a practicum experience. Please refer to the attendance section for details on attendance requirements for the course.

## Unbridled Learning Initiatives
This course will provide students an opportunity to advance their knowledge and mastery of the “tools” associated with Kentucky education reform, including the Kentucky Core Academic Standards (as they become available), assessment literacy – assessment for learning, Characteristics of Highly Effective Teaching and Learning, College and Career Readiness, and the new accountability system as it becomes available. As students carry out projects and
complete assignments that involve instructional activities for P-12 students in Kentucky schools, they will address one or more components of the Senate Bill 1 initiatives.

**Required Texts**
(2) Kentucky Core Academic Standards for Mathematics [KCAS-M] (http://www.education.ky.gov/users/otl/POS/KentuckyCommonCore_MATHEMATICS.pdf)
(3) Student e-Membership to the National Council of Teachers of Mathematics for $39 at http://www.nctm.org/membership/application/

**Grades**
Your grade for this course will be determined based on several factors, as outlined below. A description of each assignment is outlined in the Task section.

<table>
<thead>
<tr>
<th>Assignment/Task</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation/Professionalism</td>
<td>15 points</td>
</tr>
<tr>
<td>Reading Discussion Blackboard Posts</td>
<td>60 points</td>
</tr>
<tr>
<td>All students can learn prompt</td>
<td>20 points</td>
</tr>
<tr>
<td>Reading Discussion</td>
<td>15 points</td>
</tr>
<tr>
<td>Equitable Classroom Design</td>
<td>20 points</td>
</tr>
<tr>
<td>Manipulative Presentation</td>
<td>35 points</td>
</tr>
<tr>
<td>Mathematics Teaching Philosophy</td>
<td>25 points</td>
</tr>
<tr>
<td>Reflection</td>
<td>15 points</td>
</tr>
<tr>
<td>Daily assignments</td>
<td>up to 10 points each</td>
</tr>
</tbody>
</table>

The purpose of this course, as in all education, is to learn – not just to “work for a grade.” While all students should be capable of earning an A in the course, merely completing the work does not constitute A work. Instead, the final determination of a course grade relies primarily on the quality of work presented for the various assignments. Your work will be assessed based on criteria established in the course. Please note that to receive full credit, all written work must be submitted on time. Grades will be assigned as follows:

- 90%-100% A; 89%-80% B; 79%-70% C; 69%-60% D; Below 60% E

**Final Exam Information**
Will be posted in the semester schedule of courses.

**Mid-term Grade (for 100-400 level courses, and for undergraduates in 500 level courses)**
Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (http://www.uky.edu/Registrar/AcademicCalendar.htm)

**Submission of Assignments**
Only assignments submitted complete and on time will be considered for full credit. 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**, and any
assignments turned more than one week late will receive zero points, unless prior arrangements have been made with the instructor.

**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 for each unexcused absence.

**Excused Absences**
Students need to notify the professor of absences prior to class when possible. S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

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 in the semester to add a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (859-257-2754).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

**Verification of Absences**
Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness or death in the family. Appropriate notification of absences due to university-related trips is required prior to the absence.

**Excessive Absences**
According to the Rules of the University Senate, those students who miss more than 20% of the class FOR ANY REASON may be dropped by the instructor from the class. This is true even if you are sick and have medical excuses. The rationale for this rule is that people who miss more than 20% are not really receiving the content of the course.

From the Rules of the University Senate, Part II, 5.2.4.2 Excused Absences:  
*If attendance is required or serves as a criterion for a grade in a course, and if a student has excused absences in excess of one-fifth of the class contact hours for that course, a student shall have the right to petition for a “W,” and the faculty member may require the student to petition for a “W” or take an “I” in the course. (US: 2/9/87; RC: 11/20/87)*

**Participation and Professionalism**
The Middle School Teacher Education Program is a teacher preparation program, and as such expects you to work and to transition into the teaching profession. This entails both mature personal behavior and professional conduct based on the College of Education’s Functional Skills and Dispositions (see Student Handbook at http://education.uky.edu/AcadServ/content/student-handbook-education-programs). These include 1) communicating appropriately and effectively, 2) demonstrating constructive attitudes, 3) demonstrating the ability to conceptualize key content, 4) interacting appropriately with diverse groups in educational settings (including colleagues and students), and 5) demonstrating a commitment to professional ethics and behavior.

Students who fail to attend class on a regular basis, participate as expected, and/or conduct themselves professionally or ethically will be required to meet with the instructor to set improvement goals, and may face failure or expulsion based on due process policies set by the College of Education and Teacher Education Preparation program. You are encouraged to communicate regularly with the instructor so that you are aware of your standing. This may be accomplished via face-face meetings during office hours and via email.

Students with Special Needs
If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address: jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

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.

Ethics Statement
This course and its participants will not tolerate discrimination, violence, or vandalism. The Department of Curriculum and Instruction 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 students, future teachers, and ambassadors for the University of Kentucky. Any unethical behavior in class or during your field placements may result in failure for the course and/or expulsion from the UK Department of Curriculum and Instruction 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 your advisor if you have questions regarding this requirement.
Academic Integrity (boilerplate):
Per university policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the university may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Part II of Student Rights and Responsibilities (available online http://www.uky.edu/StudentAffairs/Code/part2.html) states that all academic work, written or otherwise, submitted by students to their instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about the question of plagiarism involving their own work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording or anything else from another source without appropriate acknowledgement of the fact, the students are guilty of plagiarism. Plagiarism includes reproducing someone else’s work, whether it be a published article, chapter of a book, a paper from a friend or some file, or something similar to this. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work which a student submits as his/her own, whoever that other person may be.

Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone. When a student’s assignment involves research in outside sources of information, the student must carefully acknowledge exactly what, where and how he/she employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas which are so generally and freely circulated as to be a part of the public domain (Section 6.3.1).

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

Legal Action
Students charged with violations of criminal law will be suspended immediately from the Teacher Education Program and/or field experiences until the case is settled. Students are responsible for reporting such charges to the Program Faculty Chair.

**Commitment to Diversity & Equity**

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 schools is directly and indirectly affected by UK’s Department of Curriculum and Instruction program’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 in mathematics 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 teacher candidates 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 Initial Preparation Certification Program in UK’s Department of Curriculum and Instruction is committed to teaching candidates so they use technology as a personal and professional tool. Our program is guided by NCATE standards, EPSB Kentucky Teacher Standards, EPSB Themes, and UK College of Education Technology 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.

**Course Components**

Course readings and assessments have been selected and arranged in compliance with policies set forth by *Unbridled Learning*, the Kentucky Teacher Standards, SPA Standards, Kentucky Core Academic Standards, University of Kentucky Teacher Leader Standards, University of Kentucky Functional Skills and Dispositions, University of Kentucky Technology Standards, the Kentucky Education Professional Standards Board (EPSB) themes of Diversity, Assessment, Literacy, and Closing the Achievement Gap, and the National Council for the Accreditation of Teacher Education Standards.

**Tasks**

<table>
<thead>
<tr>
<th>Task</th>
<th>Task Description</th>
<th>Standards Alignment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Students Can Learn</strong></td>
<td>“All students can learn mathematics.” Students will discuss whether they agree or disagree with this statement. Then explain how they do/don’t foresee this playing out in their future classroom.</td>
<td>AMLE: 1 – 5, 7 NCTM: 7.1, 7.5, 7.6, 8.1, 8.6 CHEMT: Section 1 – 3</td>
</tr>
<tr>
<td><strong>Equitable Classroom Design</strong></td>
<td>Students will design an equitable mathematics classroom environment. They will explain the role of the teacher and the role of the student. Describe why their mathematics classroom is equitable.</td>
<td>AMLE: 1 – 7 NCTM: 7.1, 7.5, 7.6, 8.1, 8.6 CHEMT: Sections 1, 2</td>
</tr>
<tr>
<td><strong>Manipulative Presentation</strong></td>
<td>Students will do research related to a mathematical topic and demonstrate how manipulatives help facilitate mathematics learning.</td>
<td>AMLE: 1, 3 – 4 NCATE: 4 NCTM: 5.1, 5.2, 5.3, 2.3, 3.2, 9.3, 9.8, 10.4, 11.1, 11.2, 6.1, 14.2 CHEMT: Sections 2, 4, 5</td>
</tr>
<tr>
<td><strong>Mathematics Teaching Philosophy</strong></td>
<td>Students will prepare a personal statement about what mathematics is, what it means to learn mathematics, and what it means to be a successful middle school mathematics teacher.</td>
<td>AMLE: 1 – 7 NCATE: 4 CHEMT: Sections 1 – 5</td>
</tr>
<tr>
<td><strong>Reflection</strong></td>
<td>Students will write critical and/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.</td>
<td>AMLE: 1 – 7 CHEMT: Sections 1 – 5 NCATE/NCTM KCAS-M</td>
</tr>
</tbody>
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**Field Components**

<table>
<thead>
<tr>
<th>Task</th>
<th>Task Description</th>
<th>Standards Alignment</th>
</tr>
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Teacher Work Sample

UNIT OF STUDY

Candidates design and teach a minimum of 5 lessons in a whole group setting of student learners. Small group and individual instruction should also occur within this mini-unit, as needed, to include evidence of:

- Collaboration with cooperating teacher and others (e.g., other faculty, parents, special staff) in the design and implementation of instruction and assessment
- Assessment of learners
- Communication of assessment results to the learner and cooperating teacher
- Design, implementation and management of instruction to meet learning objectives and support development of learner’s knowledge, performance, and abilities
- Differentiation of instruction according to needs and strengths of learners
- Reflection and evaluation on his/her own teaching and learning
- Use of technology in assessment, teaching, and communicating results

SITE DESCRIPTION

Candidates will describe the site of the practicum experience, including evidence of:

- Observation of setting
- Description of strengths and needs of the site
- Reflection on students “fit” with the environment
- Identification of strengths that student can bring to the site with potential for leadership

THE INSTRUCTOR RESERVES THE RIGHT TO CHANGE ANY PART OF THIS SYLLABUS DURING ANYTIME IN THE SEMESTER. STUDENTS WILL BE ADEQUATELY NOTIFIED WHENEVER CHANGES OCCUR.

Course Schedule and Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics, Agenda, and Readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Candidates in field</td>
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<tr>
<td>Week 2</td>
<td>Candidates in field</td>
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<tr>
<td>Week 3</td>
<td>Candidates in field</td>
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<tr>
<td>Week 4</td>
<td>Introductions/Syllabus/Wrap up from last semester/Preparing Lesson plans</td>
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<tr>
<td>Week 5</td>
<td>Preparing Lesson Plans</td>
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<tr>
<td>Week</td>
<td>Topic</td>
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<tr>
<td>Week 6</td>
<td>Equity in the Mathematics Classroom</td>
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<tr>
<td>Week 7</td>
<td>Equity and Manipulatives</td>
</tr>
<tr>
<td>Week 8</td>
<td>Manipulatives across the curriculum</td>
</tr>
<tr>
<td>Week 9</td>
<td>Candidates in field</td>
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<tr>
<td>Week 10</td>
<td>Candidates in field</td>
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<tr>
<td>Week 11</td>
<td>Candidates in field</td>
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<tr>
<td>Week 12</td>
<td>Candidates in field</td>
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<tr>
<td>Week 13</td>
<td>Candidates in field</td>
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<tr>
<td>Week 14</td>
<td>Implementing KCAS-M and the Resultant Changes</td>
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<tr>
<td>Week 15</td>
<td>Versatility in the Mathematics Classroom</td>
</tr>
<tr>
<td>Week 16</td>
<td>UK exam week</td>
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</tbody>
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**THIS SCHEDULE IS SUBJECT TO CHANGE WITH PRIOR COMMUNICATION TO STUDENTS.**