Teaching Content/Process: Mathematics Education
ECED 4263-03

Semester Hours 3

Semester/Year Spring 2014

Time/Location Thursdays, 12:00-2:30/EC 226

Instructor Jennifer Edelman

Office Location Coliseum 2040

Office Hours Tuesdays 3:00-5:00; Thursdays 8:30-11:30 & 3:00-5:00; Fridays 3:30-4:30 or by appointment.

Telephone Direct Line: 678-839-6184
Department Line: 678-839-6530

Email jedelman@westga.edu

Online Support D2L Home Page
https://westga.view.usg.edu/
D2L UWG Online help
http://uwgonline.westga.edu/students.php
D2L 24 hour Help
https://d2lhelp.view.usg.edu/
Ingram Library Services
http://www.westga.edu/library/
University Bookstore
http://www.bookstore.westga.edu/

COURSE DESCRIPTION
Mathematics education content, methods, and materials which are appropriate for the cognitive development of the young child from Pre-K to Grade 5 will be investigated. Students will apply knowledge of content, methods, and materials during field experience. Must be taken concurrently with ECED 4261, ECED 4262, ECED 4283, and READ 3262 or with advisor approval.

Prerequisites: Admission to Teacher Education program and College of Education field experience documentation required.

CONCEPTUAL FRAMEWORK
The conceptual framework of the College of Education at UWG forms the basis on which programs, courses, experiences, and outcomes are created. With the goal of Preparing Exemplary Practitioners, our programs incorporate ten descriptors (knowledgeable, reflective, inquisitive, decisive, adaptive, proactive, leading, collaborative, culturally sensitive, empathetic), clustered into three interrelated and overlapping themes, that demonstrate our commitment to (a) Professional Excellence; (b) Field-Based
Inquiry; and (c) the Betterment of Society. These themes and descriptors are integral components of the conceptual framework and provide the basis for developing exemplary practitioners who are prepared to improve schools and communities. National and state standards (ACEI and INTASC) also are incorporated as criteria against which candidates are measured.

The mission of the College of Education is to provide excellence in the initial and advanced preparation of professionals for a variety of settings, to foster an innovative learning community, and to empower a faculty committed to teaching and the dissemination of knowledge. This course’s objectives, activities, and assignments are related directly to the conceptual framework and national standards, as identified below.

APPROACHES TO INSTRUCTION
The instructor of this course will employ a variety of instructional strategies in teaching the content of this course. Those strategies include but are not limited to: lecture, student led demonstrations, cooperative learning activities, small group discussion, and the use of manipulatives and other interactive technologies.

COURSE OBJECTIVES

<table>
<thead>
<tr>
<th>Course Objectives and Evidence of Student Learning</th>
<th>Evidence of Student Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will be able to…</td>
<td></td>
</tr>
<tr>
<td>Gain an understanding of how children construct mathematical knowledge and apply their understanding.</td>
<td>Participation in class activities, reading responses, teaching reflections, NCTM journal review, multicultural mathematics presentation, final exam</td>
</tr>
<tr>
<td>Conceptual Framework Descriptors: Inquisitive, Knowledgeable</td>
<td></td>
</tr>
<tr>
<td>Standards: INTASC 2; ACEI 1, 2.3</td>
<td></td>
</tr>
<tr>
<td>Distinguish between conceptual and procedural knowledge in mathematics and prepare plans reflecting each.</td>
<td>Participation in class activities, reading responses, teaching reflections, NCTM journal review, multicultural mathematics presentation, final exam</td>
</tr>
<tr>
<td>Reys, Lindquist, Lambdin, Smith, 2012; NCTM, 2000; NCTM 1989</td>
<td></td>
</tr>
<tr>
<td>Conceptual Framework Descriptors: Decisive, Inquisitive, Collaborative, Culturally Sensitive, Knowledgeable, Proactive</td>
<td></td>
</tr>
<tr>
<td>Standards INTASC 7; ACEI 1, 2.3, 3</td>
<td></td>
</tr>
<tr>
<td>Become familiar with strategies to organize content, the classroom environment and children for maximum learning in mathematics and apply these strategies in their planning.</td>
<td>Participation in class activities, reading responses, teaching reflections, NCTM journal review, multicultural mathematics presentation, final exam</td>
</tr>
<tr>
<td>Identify, describe, reflect on and implement strategies for teaching Mathematics for example problem solving, number sense, spatial sense and geometry, probability, statistics, operations, computations, measurement, and graphing.</td>
<td>Participation in class activities, reading responses, teaching reflections, NCTM journal review, multicultural mathematics presentation, final exam</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Become familiar with examples and materials that reflect other cultures and perspectives.</td>
<td>Multicultural mathematics presentation</td>
</tr>
</tbody>
</table>

**TEXTS, READINGS, INSTRUCTIONAL RESOURCES, AND REFERENCES**

**Required Text(s)**  

**Required Instructional Resource:**  
Tk20 Subscription  
These are available at the University Bookstore or at [http://westga.tk20.com/campustoolshighered/start.do](http://westga.tk20.com/campustoolshighered/start.do).  
If you have purchased a subscription previously, DO NOT re-subscribe.  
For assistance, email tk20@westga.edu.

**Course References**  


**ASSIGNMENTS, EVALUATION PROCEDURES, AND GRADING**

**Assignments and Course Requirements**: Written assignments are final products that will be graded on both what is written (clarity, depth, insight) and how it is written (the form of the written work). Therefore, it is crucial to realize that correct grammar and spelling, proper punctuation, neatness, and adherence to assignment guidelines will affect your grade. As an educator, you will be expected to demonstrate high levels of competence not only in verbal but also in written communication with...
parents, administrators, and other educators. Evaluation of written assignments will be accomplished through rubrics, which will be distributed as assignments are given.

All assignments must be completed in a typed, double space format, with Times/Times New Roman font, size 12 and 1-inch margins on all sides unless otherwise indicated. Reading notebook entries do not need to be double-spaced.

**Assignments are due by 11:59 p.m. on the designated date.** Due dates are listed on the course schedule; full instructions are posted on CourseDen. Assignments are to be typed and submitted to the appropriate dropbox on CourseDen. The dropboxes will close at 11:59 p.m. on the due date. No work will be accepted in person or via email. Please do not wait until the last minute to upload your assignments; technical/computer issues will not excuse the lateness of the assignment.

**Assignments:** This is a brief overview of how you will demonstrate your learning in this course. Each assignment will have further instructions posted in CourseDen and will be discussed in class. The overall goal for these assignments is to provide you with meaningful activity that will help you reflect on and improve student learning and your teaching practices.

1. **Professional Conduct:** Each student is expected to follow the guidelines for professional conduct as spelled out in the syllabus and in the PLC charter they develop. Each member of the PLC will evaluate themselves and each other.

2. **Reading Responses:** Our in-class activities will build upon the ideas presented in our textbook. To help you prepare for these activities, you will complete a reading response. Reading responses are due 11:59 p.m. on the Wednesday before we discuss the readings in class. Late reading responses will count as 75% of an on-time entry (50% if submitted a week or more late). Please check the course outline for assigned readings and due dates.

3. **Teaching Children Mathematics Review:** Teaching Children Mathematics is a journal published by NCTM for elementary school teachers. To develop your “critical eye” towards selecting appropriate activities and teaching practices, you will choose an issue, review the articles and activities from the issue, and select a single activity to present to the class.

4. **Field Experience:** You will create or adapt two mathematics lesson plans and teach them in your field experience placement. After teaching each one, you will prepare a brief reflection on the lesson.

5. **Georgia Common Core Standards Unpacking:** The standards are written in such a way that it may be difficult to get at the “heart” of the standard. You will sign up for a content strand and grade level to unpack for the class.

6. **Multicultural Mathematics Presentation:** In your PLC, you will select a children’s literature book or a game that illustrates a mathematical concept through a multicultural lens. You will write up and teach a lesson based on the materials you select. You should connect your lesson or activity to the day’s topic.

7. **Final Exam:** A final exam will be given and will be cumulative. Please keep all of your assignments and notes.
<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Assessment Tools</th>
<th>Submit via:</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Conduct</td>
<td>100</td>
<td>Peer Evaluation Rubric</td>
<td>CATME</td>
<td>January 31, February 27, March 27, April 24</td>
</tr>
<tr>
<td>Reading Responses</td>
<td>100</td>
<td>Rubric</td>
<td>CourseDen</td>
<td>Wednesdays, 11:59 pm</td>
</tr>
<tr>
<td>Teaching Children Mathematics Review</td>
<td>100</td>
<td>Rubric</td>
<td>CourseDen</td>
<td>Wednesday, April 23, 11:59 pm</td>
</tr>
<tr>
<td>Field Experience Lessons &amp; Reflection</td>
<td>200</td>
<td>Rubric</td>
<td>CourseDen</td>
<td>Wednesday, April 23, 11:59 pm</td>
</tr>
<tr>
<td>Georgia Common Core Standards Unpack</td>
<td>100</td>
<td>Rubric</td>
<td>CourseDen</td>
<td>Sign-up date</td>
</tr>
<tr>
<td>Multicultural Mathematics Presentation</td>
<td>200</td>
<td>Rubric</td>
<td>CourseDen</td>
<td>Sign-up date</td>
</tr>
<tr>
<td>Final Exam</td>
<td>200</td>
<td>Exam</td>
<td>In person</td>
<td>April 24</td>
</tr>
</tbody>
</table>

**Grading**

900-1000 points = A
800-899 points = B
700-799 points = C
699 or fewer points = F

**CLASS, DEPARTMENT, AND UNIVERSITY POLICIES**

**Academic Honesty:** All work completed in this course must be original work developed this semester. Students are expected to adhere to the highest standards of academic honesty. Plagiarism occurs when a student uses or purchases ghostwritten papers. It also occurs when a student utilizes ideas or information obtained from another person without giving credit to that person. If plagiarism or another act of academic dishonesty occurs, it will be dealt with in accordance with the academic misconduct policy as stated in the latest *Student Handbook* and the *Graduate Catalog.*

**Attendance:** Much of the value of the course will be through the experiences that occur during our class sessions. You must be present to learn, and to contribute to the learning of others. If you must be absent, please notify the members of your PLC. Missing class sessions, arriving late to class, and/or leaving early will negatively impact your professionalism grade for the semester.

**Americans with Disabilities Act:** Students with a documented disability may work with UWG Accessibility Services to receive essential services specific to their disability. All entitlements to accommodations are based on documentation and USG Board of Regents standards. If a student needs course adaptations or accommodations because of a disability or chronic illness, or if he/she needs to make special arrangements in case the building must be evacuated, the student should notify his/her instructor in writing and provide a copy of his/her Student Accommodations Report (SAR), which is available only from Accessibility Services. *Faculty cannot offer accommodations without timely receipt of the SAR; further, no retroactive accommodations will be given.*

**Extra Credit:** Extra credit will not be available in this course. Please do your best work on the assigned activities.
Late Work: Late reading responses will count as 75% of an on-time entry (50% if submitted a week or more late). In-class presentations cannot be made up unless documentation of an emergency is submitted. Papers and projects that are turned in late will have their grades reduced by 10% for each day beyond the due date.

Professional Conduct: As teachers, you have made a commitment to the education profession. As such, you should conduct yourself at all times in a professional manner. You will demonstrate your professionalism by following the guidelines developed in your PLC and through the following behaviors:

Active participation: To learn anything more deeply, you must actively participate in it. The pedagogy being advocated and modeled through our course is the belief that our students must commit to, and be involved actively in, the problems and situations being posed. Be involved. Developing collegial, supportive relationships is an important aspect of the teaching profession.

Use of laptops, cell phones, and tablets: Teachers must learn to manage and incorporate technology in their classrooms. We will use laptops, cell phones, and tablets for specific course-related activities (e.g., composing notes, using math applets/excel/or other tools, looking up information as necessary, preparing mini-presentations). In general, you should not engage in web browsing, email, or other questionable unrelated activities during class time. Texting is not a course-related activity unless we are using Poll Everywhere.

UWG Email Policy: University of West Georgia students are provided an MyUWG email account. The University considers this account to be an official means of communication between the University and the student. The purpose of the official use of the student email account is to provide an effective means of communicating important university related information to UWG students in a timely manner. It is the student’s responsibility to check his or her email regularly.

Credit Hour Policy: The University of West Georgia grants one semester hour of credit for work equivalent to a minimum of one hour (50 minutes) of in-class or other direct faculty instruction AND two hours of student work outside of class per week for approximately fifteen weeks. For each course, the course syllabus will document the amount of in-class (or other direct faculty instruction) and out-of-class work required to earn the credit hour(s) assigned to the course. Out-of-class work will include all forms of credit-bearing activity, including but not limited to assignments, readings, observations, and musical practice. Where available, the university grants academic credit for students who verify via competency-based testing, that they have accomplished the learning outcomes associated with a course that would normally meet the requirements outlined above (e.g. AP credit, CLEP, and departmental exams).

University of West Georgia Honor Code: At the University of West Georgia, we believe that academic and personal integrity are based upon honesty, trust, fairness, respect, and responsibility. Students at West Georgia assume responsibility for upholding the honor code. West Georgia students pledge to refrain from engaging in acts that do not maintain academic and personal integrity. These include, but are not limited to, plagiarism, cheating, fabrication, aid of academic dishonesty, lying, bribery or threats, and stealing.

The University of West Georgia maintains and monitors a confidential Academic Dishonesty Tracking System. This database collects and reports patterns of repeated student violations across all the
Colleges, the Ingram Library, and the School of Nursing. Each incidence of academic dishonesty is subject to review and consideration by the instructor, and is subject to a range of academic penalties including, but not limited to, failing the assignment and/or failing the course. Student conduct sanctions range from verbal warning to suspension or expulsion depending on the magnitude of the offense and/or number of offenses. The incident becomes part of the student’s conduct record at UWG.

Additionally, the student is responsible for safeguarding his/her computer account. The student’s account and network connection are for his/her individual use. A computer account is to be used only by the person to whom it has been issued. The student is responsible for all actions originating through his/her account or network connection. Students must not impersonate others or misrepresent or conceal their identities in electronic messages and actions.