TEXAS A&M UNIVERSITY-CORPUS CHRISTI
College of Education, Department of Curriculum and Instruction

EDCI 5390 - ME by the SEa Conference
Math Education and Science Education
Course Syllabus – Summer 2014

Course Instructor: Tonya D. Jeffery, Ed.D.
Office Location: Faculty Center 236
Office Hours: T, W, TH in Bb, 1:00pm – 3:00pm (Virtual Office Hours via Bb), or by appointment
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I. Course Description
3 semester hours
The course addresses issues relevant to mathematics and/or science education. It may be repeated when topics vary.

II. Rationale
Persons pursuing a graduate degree in education will benefit from learning how incorporating research-based instructional practices in to their classroom (based on Marzano’s nine high-yield instructional strategies) will help their students become active, engaged learners and increase student achievement.

This course is designed for graduate students who want to enhance and expand their understanding of current issues in math and science education. The course is offered in conjunction with the 10th annual ME by the SEa Conference.

III. State Adopted Proficiencies for Teachers
1. Learner-Centered Knowledge: The teacher possesses and draws on a rich knowledge base of content and technology to provide relevant and meaningful learning experiences for all students.
2. Learner-Centered Instruction: The teacher collaboratively identifies needs and implements appropriate pedagogical and assessment strategies using technology and other resources.
3. Equity In Excellence For All Learners: The teacher respects, addresses, and validates the needs of diverse learners.
4. Learner-Centered Communication: The teacher demonstrates effective professional and interpersonal communication skills and serves as an advocate for all students.
5. Learner-Centered Professional Development: The teacher is a reflective practitioner and demonstrates a commitment to learn, to improve the profession, and to maintain professional ethics and personal integrity.
IV. TExES Competencies

This course is designed for teachers who are already certified. TExES competencies, although expanded upon within this course, are not identified since the participating teachers will have already completed their examinations.

V. Course Objectives and Outcomes

This course will be organized about principles identified with Marzano’s research-based strategies for increasing student achievement, specifically in math or science.

1. The student will attend ME by the SEa and evaluate four sessions.
2. The student will write a paper on an important current trend in math/science education and effective student learning using correct APA citations.
3. The student will participate in on-line discussions concerning current math/science trends.
4. The student will develop and present a plan that would implement changes that would be effective for their math or science concept using one or more of Marzano’s strategies.

VI. Course Topics

Course topics include, but are not limited to:

- Current topics in Mathematics/Science education
- Program Planning for Teacher Professional Development
- TAMUCC Library’s databases for Literature Review
- How to write a Literature Review
- Marzano’s strategies that are dynamic and adapted to Math/Science

VII. Instructional Methods and Activities

Traditional experiences (reading assignments, journal article reviews, written assignments, online discussion)

BlackBoard assignments and interaction.

VIII. Evaluation and Grade Assignment

The methods of evaluation and the criteria for grade assignment are:

A. Methods and Percentage of Final Course Grade Each Assessment

1. Conference Attendance: Students must attend the 10th Annual ME by the SEa Conference @ TAMUCC, June 13, 2014, from 8am-4pm.
2. Attendance and participation in Class Activities: There will be two face-to-face class meetings. All other class interactions will take place via BlackBoard.
3. Conference reaction papers (20%): Students must complete four written reaction papers reflecting their engagement with and evaluation of one
keynote address and three regular conference sessions. Details will also be available on BlackBoard.

4. **Mini Literature Review (40%)**
   Current Trends in Math/Science Education: (3 references plus 1 reference from textbook; 1 grade for total assignment)
   1. The topic will be an important current trend in math/science education and effective student learning.
   2. Use a minimum of 3 peer-reviewed articles from professional educational journals, written within the past five years and 1 citation from your Marzano textbook.
   3. The research must be related to effective instruction and student learning for all types of learners.
   5. If using a Bell Library database rather than the hard copy of a journal, use articles with PDF files only, unless the article is from an Internet-only journal. Remember the article must be peer reviewed.
   6. Remember to use the doi number, if available. Due: July 5, 2013

Use a minimum of 3 peer-reviewed articles from professional educational journals, written within the past five years and one citation from your text. **This equals a minimum of four sources.** The topic is an important current trend in math/science education and effective student learning. If using a Bell Library database rather than the hard copy of a journal, use articles with PDF files only, unless the article is from an Internet-only journal. Remember the article must be peer reviewed. Use APA 6th Edition format, including Times New Roman, 12 pt. font. Be sure to check your APA book each time you write. **Also, be sure to check sample papers on pp. 41-59.** I have given you some helpful page numbers in the following guidelines.

  - Running Head
  - Title
  - Author’s Name (Byline) and Institutional Affiliation
  - Author note: Person to contact
- **Keywords** (APA, 2010, p. 41).
  - Write the title of your paper. (APA, 2010, p. 42)
  - Do not title this section as Introduction; it is assumed.
  - Starting with the first paragraph, introduce the topic that you will be studying (important current trend in math/science education and effective student learning).
Explore the background and importance of the topic. Tell why this investigation is important to effective teaching and student learning.

Use your references here and cite appropriately according to APA, 6th edition formal/style.

  - This is a literature review, which means that the references will be recent (within past 5 years) scholarly works such as professional peer reviewed journals.
  - Use the literature review to develop the topic for the reader.
    - Describe relevant scholarship. While you are encouraged to use more references, it is expected that you use a minimum of four citations in this section. Three must be from peer reviewed journals within the past five years, but you may cite your text for your fourth reference, if necessary.
    - Present the background on what you are looking into in this project. Contextualize the topic. Describe who else has looked at this topic. Help the reader understand the connection between past and present.
    - Discuss effective implementations of this important current trend in math/science education and effective student learning within your content and/or grade level.
  - Use your references here and cite appropriately.

- **Results and Discussion (APA, 2010, pp. 32-35; APA, 2010, pp. 35-36).**
  - Describe/summarize what you learned.
  - Significance: What is the significance of the information you learned?
    - Implications: What implications will this research have for student learning, effective teaching practices, and the profession at large?
    - Applications: Describe “how the findings can be applied in practice” Limitations: What were the limitations of your literature review?
  - Conclusion: Summarize what you learned from this research. You will need to “close the circle” by citing some of your previous sources in this section.

- **References (APA, 2010, p. 37).**
  - You will have a minimum of 4 references.
  - Follow APA style/format.

**Discussion Board (20%)**

You will be a part of the learning community by responding to a question on the discussion board. The promptness and initiative of participating in threaded discussions done in a timely fashion will demonstrate self-motivation. The delivery of your posts will address your attention to detail in terms of being grammatically correct with rare misspellings. You will make posts that are relevant to the original discussion by staying on topic. By contributing to the Learning Community (LC), you will demonstrate an effort to further the development of a collaborative learning experience.
**Instructional Strategies Self-Study (20%)**

Students will select a specific grade and subject (math or science) for study. Students will analyze their current classroom practices as they relate to Marzano’s principles. They will develop a plan that would implement changes that would be appropriate, responsible, and effective for their math or science concept. Requirements must be completed by the end of Summer Session I. Students will share their final reports in person at a meeting on campus June 30, 2014.

Grading: EDCI 5390

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Discussion board</td>
<td>20</td>
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<tr>
<td>Conference reaction reports</td>
<td>20</td>
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<tr>
<td>Instructional Strategies Self-Study</td>
<td>20</td>
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<tr>
<td>Mini Literature Review</td>
<td>40</td>
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<tr>
<td>TOTAL</td>
<td>100</td>
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**B. Grading Scale**

Grades:
- A = 92% - 100%
- B = 84% - 91%
- C = 76% - 83%
- D = 68% - 75%

**IX. Course Schedule and Policies**

**A. A tentative course schedule:**
- Monday, June 9, 1:30 Bell Library Room 109, 2:30 CASA GSSC room 112
- Friday, June 13, ME by the SEa, 8:00 – 4:00, Center for Instruction Discussion Board, June 11-June 28
- Monday, June 30, Math Lab, ECMS, Present Instructional Strategies Self Study
- Thursday, July 3, Final Mini Lit Review due

**B. Class Policies**

Late assignments
Late assignments will not receive full credit. A deduction of 10% per day will be applied to any late assignment. Communicating an excuse for a late assignment does not constitute a waiver of the deadline or avoid the deduction.

Attendance/tardiness
Attendance will be recorded for this class. Points will be deducted for class absences. Notification of an absence does not constitute a class waiver.

**Late work and Make-up Exams**
Full credit will not be given for late assignments or unexcused missed conference. Because this is a conference-related course, there can be no extensions for the final presentation or the final written report.
Extra Credit
Extra credit is not an option for this course.

X. Textbook(s)


XI. Bibliography

*The knowledge bases that support course content and procedures include:*


*Journals:*

Selected readings from the professional journals *School Science and Mathematics, Mathematics Teaching in the Middle School, Teaching Children Mathematics, Science and Children, Science Scope, and The Science Teacher*, will be incorporated into the course content.

XII. Course Policies

*Academic Integrity/Plagiarism*

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one's own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in failure. See website [http://judicialaffairs.tamu.edu/](http://judicialaffairs.tamu.edu/).

*Dropping a Class*
I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Check the university academic calendar website for dates related to dropping a class with an automatic grade of "W" this term. See website http://www.tamucc.edu/academics/academic_cal.html.

**Preferred methods of scholarly citations**
Publication Manual of the American Psychological Association, Sixth Edition is the preferred method for citations within papers.

**Classroom/professional behavior**
All students are expected to act in a responsible manner with consideration of fellow students and toward TAMU-CC faculty and staff members. Specific rules and information is available in the TAMU-CC Student Handbook and available through the website http://judicialaffairs.tamucc.edu/studentcofc.html.

**Cell Phone Usage During Class**
Cell phone usage is prohibited during class unless special prior permission has been granted by Dr. Jeffery. This includes text messaging, talking, vibrating phones, checking email, responding to email, and/or all other uses to which such devices may be employed. EDCI 5390 is a professional development course in the Department of Curriculum and Instruction at TAMU-CC. You are expected to demonstrate a level of professionalism.

**Statement of Academic Continuity**
In the event of an unforeseen adverse event, and classes could not be held on the campus of Texas A&M University–Corpus Christi; this course would continue through the use of Blackboard and/or email. In addition, the syllabus and class activities may be modified to allow continuation of the course. Ideally, University facilities (i.e., emails, web sites, and Blackboard) will be operational within two days of the closing of the physical campus. However, students need to make certain that the course instructor has a primary and a secondary means of contacting each student.

**Grade Appeals**
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties...
involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

**Disabilities Accommodations**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in CCH 116. See website http://disabilityservices.tamucc.edu/.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.