

**CTSE 8950 Syllabus – Fall 2014**  
**Designated Thursdays, 4:30 P.M. – 6:30 P.M.**

1. **Course Number:** CTSE 8950
2. **Course Title:** STEM Education Seminar – Responding to National Standards  
**Credit Hours:** Hours may vary from 1-3; **Prerequisites:** None; **Corequisites:** None
3. **Date Syllabus Prepared:** August 2014 by Marilyn Strutchens
4. **Texts or Major Resources:** Readings as assigned.
5. **Course Description:** The TEAM-Math mathematics/mathematics education seminar provides an opportunity for graduate students and faculty in mathematic and mathematics education to discuss research and issues related to the TEAM-Math project. Additional topics in STEM Education may be included depending on interest.
6. **Course Objectives:** This seminar has two major objectives:
  - We will review various documents and initiatives related to the Common Core State Standards for Mathematics and/or the Next Generation Science Standards and other college and Career Ready Standards.
  - We will discuss on-going research related to STEM education presented by seminar participants.
7. **Course Content and Tentative Schedule:**

Date	Presentations
August 21, 2014	<ul style="list-style-type: none"> <li>• Overview of the Seminar and Planning (Marilyn Strutchens)</li> <li>• <i>Common Core State Standards</i> (W. Gary Martin)</li> <li>• <i>Increasing Mathematics Understanding and Achievement of African American Students</i> (Marilyn Strutchens)</li> </ul>
September 4, 2014	<ul style="list-style-type: none"> <li>• <i>Columbus Regional Mathematics Collaborative--The Last of Its Kind</i> (Denise Peppers)</li> <li>• <i>The Impact of Personal Context Authenticity in Mathematics</i> (Lauretta Garrett)</li> </ul>
September 25, 2014	<ul style="list-style-type: none"> <li>• <i>Gender Differences in Feeling and Attitudes Towards Mathematics in the Gifted Intermediate Student</i> (Lori Shaw)</li> <li>• <i>Teacher Perspective on Science and Religion: How do Science Teachers' Religious Beliefs Affect Instruction on the Origin of the Universe (Big Bang Theory)</i> (George Turner)</li> </ul>
October 2, 2014	<ul style="list-style-type: none"> <li>• <i>Spatial Structuring in the Primary Grades</i> (Judy Welch)</li> <li>• <i>Equal Access</i> (Ruby Ellis)</li> </ul>
October 23 -24, 2014	<ul style="list-style-type: none"> <li>• Alabama Council of Teachers of Mathematics in Birmingham, AL (Optional)</li> </ul>
October 30, 2014	<ul style="list-style-type: none"> <li>• <i>Instructional Tasks in the Secondary Mathematics Classroom</i> (Christopher Parrish)</li> <li>• <i>The Use of Citizen Science Programs for Informal Science Education</i> (David Laurencio)</li> </ul>
November 13, 2014	<ul style="list-style-type: none"> <li>• <i>Exploring the Narratives of Mathematics Teachers that Effectively Use Technology in the Secondary Classroom</i> (Nancee Garcia)</li> <li>• <i>Professional Mathematics Learning Communities Project Update</i> (Marilyn Strutchens, Beth Hickman, W. Gary Martin, Pamela Norris, Ulrich Albrecht, Huajun Huang, Megan Burton, Norendra Govil, Stephen Stuckwisch, &amp; Lisa Ross)</li> </ul>
November 20, 2014	<ul style="list-style-type: none"> <li>• Central Alabama Mathematics Teacher Education Partnership               <ul style="list-style-type: none"> <li>○ <i>Actively Learning Mathematics</i> (Ulrich Albrecht &amp; W. Gary Martin)</li> <li>○ <i>Clinical Experiences for Mathematics Teacher Education Candidates</i> (Marilyn Strutchens, Huajun Huang)</li> </ul> </li> </ul>
December 4, 2014	<ul style="list-style-type: none"> <li>• <i>Principles to Actions Modules for Professional Development</i> (W. Gary Martin &amp; Marilyn Strutchens)</li> <li>• <i>Formative Assessment Initiative</i> (Marilyn Strutchens &amp; Megan Burton)</li> </ul>

8. **Course Requirements/Evaluation:** Students enrolled in CTSE 8950 (1 CR), should:
  - Attend a minimum of six sessions.
  - Co-lead at least one session.
  - Prepare a final five-page paper summarizing what they have learned in the seminar.
 Students enrolled for more than 1 hour should negotiate additional requirements with Dr. Strutchens.
9. **Class Policy Statements:**

- Participation: Students are expected to participate in all class discussions and participate in all exercises. It is the student's responsibility to contact the instructor if assignment deadlines are not met. Students are responsible for initiating arrangements for missed work.
- Attendance: Each student is expected to attend all sessions as negotiated.
- Unannounced Quizzes: There will be no unannounced quizzes.
- Accommodations: Students who need accommodations are asked to electronically submit their approved accommodations through AU Access and to arrange a meeting during office hours the first week of classes, or as soon as possible if accommodations are needed immediately. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not established accommodations through the Office of Accessibility, but need accommodations, make an appointment with the Office of Accessibility, 1228 Haley Center, 844-2096 (V/TT).
- Honesty Code: The Student Academic Honesty Code (see Student Policy eHandbook) will be strictly enforced.

**Students are encouraged to provide feedback on their experiences in the course using AU eValueate.**