CTSE 7970 Syllabus – Fall 2013

1. Course Number: CTSE 7970

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 20, 2013 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 other important issues in mathematics education.
 - We will discuss on-going research related to STEM education presented by seminar participants.

7. Course Content and Tentative Schedule:

| Date | Topics | Presenters |
|--------------|--|----------------------|
| August 22 | Overview of the seminar and planning | Marilyn Strutchens |
| 4:30-6:30 PM | PMLC Update | |
| August 29 | MTE-Partnership, RAC | W. Gary Martin |
| 4:30-6:30 PM | Video Case Study | Nancy Garcia & |
| | | Marilyn Strutchens |
| September 12 | White Papers for the MTEP (Clinical Experiences and Measures) | W. Gary Martin |
| 4:30-6:30 PM | | Nancy Garcia & |
| | | Marilyn Strutchens |
| September 26 | Exploratory Study of High School Geometry Teachers' Applied | Anna Wan |
| 4:30-6:30 PM | Content Knowledge | |
| | Developing Learning and Attitudes in Statistics through a | Basil Conway |
| 0 1 10 | Constructivist Learning Environment | T : 01 |
| October 10 | Gender Differences & Similarities in Mathematics Attitudes of Gifted | Lori Shaw |
| 4:30-6:30 PM | Intermediate Students , Part II | T 1 XX7 1 1 |
| | Spatialization and Primary Math | Judy Welch |
| | Math Standards: Teacher Efficacy and Student Growth, Part I | Johna Channell |
| October 31 – | ACTM Forum | ASU |
| November 1 | | |
| November 7 | NCTM 2014 Document | W. Gary Martin |
| 4:30-6:30 PM | TBA | Steven Stuckwisch, |
| | | Ulrich Albrecht, and |
| 37 1 1 | ** | Huajun Huang |
| November 14 | How Second Graders "In Their Own Words" Implement the | Debra Pierce |
| 4:30-6:30 PM | Standards of Mathematical Practice | T : 01 |
| | Gender Differences & Similarities in Mathematics Attitudes of Gifted | Lori Shaw |
| | Intermediate Students, Part II | T 1 CI II |
| | Math Standards: Teacher Efficacy and Student Growth, Part II | Johna Channell |
| | Wrap-up session for the semester | Looking back, |
| | | looking ahead |

- **8.** Course Requirements/Evaluation: Students enrolled in CTSE 7970 (1 CR), should:
 - Attend all 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:

- <u>Participation:</u> 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 eValuate.