This Syllabus is provided for informational purposes regarding the anticipated course content and schedule of this course. It is based upon the most recent information available on the date of its issuance and is as accurate and complete as possible. I reserve the right to make any changes I deem necessary and/or appropriate. I will make my best efforts to communicate any changes in the syllabus in a timely manner. Students are responsible for being aware of these changes.

**Course Description**

*(2-2) 3 hours credit.*

**Prerequisites:** Admission to Teacher Certification Program, ECE 3143, ECE 3313, and ECE 3603

**Concurrent enrollment in:** ECE 4203, C & I 4353, and RDG 3823

This course involves the study of instructional methods and materials that support diverse children’s meaningful exploration, discovery, and development of basic concepts and skills in mathematics from EC-Grade 6. Emphasizing a constructivist approach to the teaching and learning of mathematics, this course also advances the use of technology to facilitate mathematics understanding. Attention will be given to understanding the interrelatedness of mathematics and other content areas, creating effective learning environments, planning and implementing lesson plans to meet the differentiated needs of a wide variety of learners, and assessing student learning in mathematics. This course must be completed with a
grade of “B” or better for it to serve as a prerequisite for C & I 4616 Student Teaching: EC-6. Restricted course; advisor code required for registration. Field experiences required.

**Rationale**
The early grades of Early Childhood through grade 6 provide prime opportunities for teachers to work with students on developing, exploring, and understanding mathematics. Teacher candidates must learn how to apply the knowledge and concepts of the mathematics curriculum in classroom settings using a variety of instructional methods and strategies. This will be done in an EC-6 school environment that will allow preservice teachers to work directly with classroom teachers and students in an ongoing school context of learning and reflection. Emphasis will be placed on constructivist and socio-constructivist theoretical frameworks for the development of all learners. While the focus of this course will be on mathematics curricula, there will be expectations for integration across other content areas.

**Course Objectives**
The student will be given the opportunity to:

1. examine the PreKindergarten Guidelines and K-6 Texas Essential Knowledge and Skills (TEKS) in mathematics and the national mathematics guidelines (NCTM) and relate these standards to instructional practices in diverse settings.

2. become familiar with theories and research detailing how children learn mathematical concepts and develop mathematical understanding.

3. develop an understanding of teaching models that reflect research-based instructional methods and strategies and to be able to apply this knowledge to teaching and learning specifically related to mathematics.

4. become familiar with a variety of materials, including technology, that facilitate mathematics learning in EC-6 classrooms and develop an understanding of, and facility in using, both concrete and virtual mathematics manipulatives in EC-6 settings. Go to [http://nlvm.usu.edu/en/nav/vlibrary.html](http://nlvm.usu.edu/en/nav/vlibrary.html) for access to virtual manipulatives.

5. explore the five areas of mathematical content (number and operations, geometry and measurement, algebraic thinking and data analysis and probability) and mathematical process skills (problem solving, reasoning and proof, communication, connections, and representation) that need to be taught in EC-6 classrooms.

6. develop lesson plans and projects that take into account children’s diverse languages, culture, and communities and that provide active, meaningful learning opportunities consistent with community norms and the goals of the instructional program.

7. plan, implement, monitor, assess, and differentiate mathematics instruction to enhance the learning of all students within classrooms.

8. develop and apply principles of classroom management that facilitate a classroom ecology that promotes success for all learners.

**Required Texts/Readings**

* Download and print a hard copy of Math TEKS for the grade level you’re assigned to: [http://www.tea.state.tx.us/teks/index.html](http://www.tea.state.tx.us/teks/index.html)
Overview of Course Requirements

Field Work
The extensive field experience associated with this course will offer you opportunities to not only interact with diverse children, but will also allow you to extend and refine your understandings about children, children’s learning and development, and the nature of the teaching field, under the supervision of university professors and cooperating teachers in elementary schools. Field experiences include, but are not limited to, teaching lessons, participation in faculty and parent meetings, participation in extracurricular school activities, and experiences in special area classrooms. It is expected that you interact with children, not simply observe classroom routines and practices, during the field placement. In addition, please keep in mind the following field work policies:

- All teacher candidates enrolled in a course that includes a field placement will be responsible for meeting the same course requirements for field experiences regardless of their employment status. Teacher candidates who work in an area school district or another educational environment will be required to complete their field experiences outside of their place of employment.

- Teacher candidates must remain in the assigned field placement throughout the semester. Teacher candidates may not alter their assigned schedule or placement in any way and may not choose their own field placements.

- The completion of the minimum number of field experience days as required by the individual courses is required for a passing grade. Teacher candidates who do not meet the minimum requirement of field experience hours as required by the course will automatically receive an “F”.

- Students enrolled in field-based classes are required to pass a criminal history screening prior to participation in learning opportunities with children. UTSA student identification badges must be visible at all times while on the elementary school campus.

If you must miss a field experience day or if you are going to be late to your field site, you are responsible for calling the school before 8:00 a.m and leaving a message for and your classroom teacher.

Professional Attributes
Because of the nature of the teaching profession, it is critical that you are able to interact appropriately with students, parents, school faculty and staff, and others within the community. Always be prepared. Complete your assignments on time. Be ready for class and be prepared to teach your lessons with your elementary students. Bring all necessary materials with you when you teach your lessons and arrive to your field site, and to our class, on time. In addition, always maintain the highest level of professionalism in both your field placement school and within our classroom. Professionalism includes (but is not limited to) the way in which we present ourselves in the school in which we’ll be working. Be aware of the way that you dress, talk, and act around students, parents, school faculty and staff, and peers. If you ever have any questions regarding issues pertaining to professionalism, please do not hesitate to ask me.

Any breach of professional ethics or conduct deemed unsuitable by the cooperating teacher in the field placement site and/or the course instructor could result in disciplinary action as specified in the Fitness to Teach Guidelines and/or the UTSA Student Handbook.

Note: During the semester you will be using materials from the field-based elementary school and/or from your instructor. You are encouraged to use these materials and are expected to return the materials
as soon as you are finished. All materials must be returned by the last day of class. A grade of “Incomplete” will be assigned for students who have not returned all materials by the last day of class.

Assignments
Grading criteria and specifications for each assignment will be given by the instructor. **The following conditions apply to all assignments:**

1. Assignments must be turned in on the specified due date. Assignments are due at the beginning of class. Assignments that are submitted late will only be evaluated at the discretion of the instructor and points will be deducted from your final grade.
2. Assignments must be complete upon submission. No incomplete assignments will be accepted. Resubmissions may be requested by the instructor.
3. All written assignments must reflect competence in grammar, spelling, punctuation, and sentence construction. Assignments should be neat and error free. Points will be deducted for excessive, extraneous mistakes.
4. Assignments must be prepared on a computer using appropriate word processing software. Facilities are available to students on campus for this purpose.

Fitness to Teach Review
The UTSA College of Education and Human Development has created and implemented a Fitness to Teach policy to ensure a high level of teaching standards. This policy is intended to make sure that you fully understand the requirements of professional behavior as a student in the COEHD. In order to enter into your field placement with your cooperating teacher, you must review the Fitness to Teach policy (http://coehd.utsa.edu/FTT/FTT.htm) and complete the Fitness to Teach Reflection which can be found on WebCT under “Assignments.”

Project WILD
Project WILD is an interdisciplinary conservation and environmental education program for PK-12th grade students. Project WILD training provides preservice and inservice teachers with an integrated math, science, language arts, and social studies curriculum that encourages children to learn about, and interact with, the world around them.

During the semester, you will be required to attend a full-day Project WILD workshop from 8:30 a.m. - 4:00 p.m. The workshop will take place during your regularly scheduled class day. All activities will occur outdoors, so please dress appropriately for the weather and setting. In addition, bring a sack lunch along with plenty of water as no vending machines or food is available on-site.

Students who successfully complete Project WILD training will earn certification as a Project WILD environmental educator. Participants will also be given a curriculum guide that includes activities appropriate for PK-6th grade students. The national WILD office requires attendance for the full day in order to earn certification and to receive the materials. You will be able to, and are encouraged to, use activities from this curriculum guide to plan math and science lessons for this course.

Please note that **Project WILD Attendance is mandatory, not optional.** All students are required to attend for the full day, regardless of whether they have taken a previous workshop at some other time. If an emergency arises on the day that you are scheduled to attend Project WILD, please contact your instructor as soon as possible in order to determine an appropriate course of action, such as attending Project WILD on an alternate day or in an alternate setting. **FAILURE TO ATTEND PROJECT WILD WILL RESULT IN A LETTER GRADE DEDUCTION FROM YOUR FINAL GRADE.**
Lessons and Reflections
Under the supervision of the cooperating teacher (substitute teachers are not valid supervisors), you will plan and teach three lessons in your field-based classroom during the semester. Keep in mind the following when planning lessons:

- **ALL** lessons must relate to students’ lives and/or communities
- **ALL** lessons must be hands-on and actively involve all students
- At least one lesson must include and incorporate children’s literature
- At least one lesson must incorporate the use of technology
- At least one lesson must include and incorporate writing (guided, interactive, or independent)

Students will be expected to show evidence that their lesson plans address the TEKS as well as the diverse backgrounds, needs, and abilities of the students in their field placement classroom. **The first lesson will follow a 5 Step format and should be appropriate for small group instruction. The remaining two lessons will follow a 5E format and should be appropriate for large group instruction.** Your first 5E lesson will be planned in grade level groups. Both the 5 Step and 5E lesson formats will be discussed in detail in class, and extensive resources will be uploaded onto WebCT.

Lessons must be submitted to the course instructor and the cooperating teacher **prior to** teaching. Lesson plans must be turned in to the instructor for review and feedback by the instructor according to the deadlines designated in the course schedule. **Lessons taught without prior approval from the instructor will not graded, and you will not receive credit for teaching it.** All lessons need to be evaluated by the cooperating teacher prior to teaching. Additionally, after lessons have been taught, the student is to use the reflection guidelines set forth by the instructor to evaluate their lesson.

Once you have taught your lesson and completed your reflection, you will need to turn in a paper, two-pocket folder containing the following items behind separate tabs:

1. Original lesson plans with peer and instructor comments (CT must sign and date the rough draft). If electronic feedback is given, then a printout of all dialogue needs to be printed and included. **No grade will be given without this evidence.**
2. Corrected lesson plan that was actually taught.
4. Coordinating teacher’s evaluation.
5. Student work and/or evidence of activities covered in the lesson.

Each of these items needs to be placed in the folder using separate dividers that are **clearly labeled.** Deadlines for these submissions can be found on the attached course schedule.

Reading Reflections
Reflective practice is critical in the growth and development of educators who are adaptable to, and supportive of, the educational needs of all of their students. The goal of this assignment is to help you develop an understanding of mathematics content and instructional methods and critically examine the mathematics practices in elementary classroom settings. Four times throughout the course of the semester you will be asked to synthesize information contained in course readings and discussions into a short reflection. Your reflections will be shared and discussed with your peers in small-group settings during class time. Your reflections should be guided by the topics covered in the course readings and classroom discussions and connected to what you are observing and experiencing in your field-based classroom.
MathPacks
An important component of successful classroom ecology is the connection between home and school. To help facilitate these connections, you will be asked to create an interactive mathematics activity that students in your field-placement classroom can complete at home with caregivers (sibling, parent, aunt, grandparent, etc.). This assignment will be comprised of four parts. You will be required to: 1) develop at least three MathPack activities; 2) develop a survey for caregivers AND students to use in order to evaluate your MathPack assignment; 3) send the MathPack home with one student in your field-based classroom; and 4) write a reflection describing the effectiveness of the MathPack based on feedback from the family and student.

Your activity should be placed into a backpack or other durable, portable container that students can easily take home. Your MathPack will need to contain at least three different activities that take into consideration the interests, multicultural backgrounds, and academic needs of the students in your field-placement classroom as well as the grade level math curriculum and TEKS objectives. As you will be required to send your MathPack home with one student, each MathPack needs to contain an introductory letter, directions for caregivers, ALL necessary materials, and surveys that are appropriate for families and students to use in order to evaluate your MathPack activities. You will also need to design a system for documenting the completion of the activities and deciding who takes the MathPack home and when. Additional information will be provided in class.

Integrated Math/Science/Reading WebQuest
In small groups, students will be expected to develop and create an integrated math/ science WebQuest. This assignment will be a joint assignment between C& I 4403, C&I 4353, and RDG 3823. A WebQuest is an inquiry-based learning activity that is centered on a guiding question that students investigate using information from resources like the internet. This assignment contains three parts: 1) Students will first be required to examine and evaluate several selected elementary WebQuests to become familiar with WebQuest design. 2) The second part of the project will require the students to work as a group and design their own WebQuest that integrates math and science. 3) Finally, students will be required to submit a copy of the WebQuest to the instructor prior to the group presentation for feedback and suggestions. The WebQuest will not have to be posted to the web, but it must be appropriate for grades 1-6. Additional information, directions and evaluation information will be posted on WebCT. For C&I 4403, students will be evaluated on the specific math components that are embedded within the WebQuest. Additional information will be provided in class.

Student Evaluation
Grading criteria and specifications for each assignment will be given by the instructor. The following conditions apply to all assignments:

Evaluation of student performance in this course is based on a combination of assessments/outcome based options to determine student understanding of course objectives. The final grade in the course will be calculated in the following manner:
Attendance, Fitness to Teach, Project WILD  See Syllabus
Professionalism/ participation-in class activities  20 points  
Lessons and reflections  150 points  
Reading Reflections  20 points  
Math Packs  50 points  
Integrated Math/Science WebQuest  35 points  

A= 275-247  B= 246-219  C= 218-192  D= 191-164 + FTT  F= below 164 + FTT

Attendance and Professionalism
Attending scheduled classes and participating in field-based experiences are mandatory for the completion of this course. Activities designed for class participation cannot be replicated and may not be completed outside of allotted class time. Therefore, attendance is expected for each class session and each field experience day. Attendance will be checked at the beginning of each class period. In order to be considered present for the class you must arrive on time and remain for the entire class period. If you must be absent from class, it is your responsibility to contact the instructor before class and collect any notes/ materials from class from your classmates.

Excused absences are reserved for extreme emergencies and their designation as excused up to the discretion of the instructor. You are allowed one excused absence in this course. Any absence, either excused on unexcused, thereafter will result in a deduction of points. You will receive a reduction in your final grade by 1 letter grade for each unexcused absence and each excused absence after the first one will result in a reduction of the final grade by five points. VERY IMPORTANT: upon your second unexcused absence, the instructor will also initiate a Fitness to Teach review. There will be no exceptions to this policy.

Tardiness to class, and leaving before class is complete, is unprofessional. Each instance will result in the loss of 2 points. Students who have excessive tardies, or who leave class early multiple times, will also receive a deduction of professionalism points and may receive in a Fitness to Teach referral.

Policies and Procedures
Students are expected to demonstrate professional conduct and attire during class sessions. In order to minimize distractions, please refrain from engaging in loud or extensive individual conversations during class lectures or discussions. In addition, please silence your cell phones and/ or pagers. No electronic recording of lectures or class sessions may be done without the prior permission of the instructor. LAPTOPS ARE NOT NECESSARY AND, UNLESS PRIOR PERMISSION HAS BEEN GIVEN BY THE INSTRUCTOR, ARE NOT PERMITTED IN CLASS.

The UTSA honor code states:

“On my honor, as a student at The University of Texas at San Antonio, I will uphold the highest standards of academic integrity and personal accountability for the advancement of the dignity and the reputation of our university and myself.”

Please note that I will pursue any and all courses of penalty for any violation of this honor code including, but not limited to a Fitness to Teach referral.

Student Resources
Academic Success and the Tomás Rivera Center: The TRC provides an array of services to assist student in achieving learning success. A large proportion of beginning students find that the skills they develop
in high school may not be adequate for success at the college level. The TRC provides training and assistance in such areas as study skills, test taking strategies, note taking skills, etc. The Center also has individual advising and tutoring for some courses. At the moment, tutoring is not available for this course but the various skills workshops that they run along with individual advising may prove extremely helpful. The TRC is located in the University Center 1.01.02 (far west end of the UC). You can reach them via the web (www.utsa.edu/trcss) or by phone (458-4694).

**Student Support Services:** UTSA students with documented disabilities have access to an array of support services through the Office of Disability Services. To receive support services and/or accommodations, students with disabilities must be registered with the Office of Disability Services (MS 2.03.18, telephone 458-4157, web: http://www.utsa.edu/disability/).

**Texas Educator Standards**
Download and familiarize yourself with the specific standards for Math, (EC-6) and Pedagogy and Professional Responsibilities. These standards are the framework used to design the Texas Examinations of Educator Standards (TEXES).

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<th>Mathematics Standards</th>
<th>Technology Standards</th>
<th>Pedagogy &amp; Professional Responsibilities:</th>
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**Quality Enhancement Plan (QEP)**
The Quality Enhancement Plan (QEP) is a course of action designed to enhance student learning and is a required component of the accreditation process conducted by the Southern Association of Colleges and Schools (SACS).

The UTSA QEP Quantitative Scholarship: From Literacy to Mastery provides you with the skills needed to evaluate and interpret data, understand risks and benefits, and make informed decisions in your personal and professional lives. The plan focuses on integrating quantitative reasoning and communication skills in existing courses across the undergraduate curriculum.

The SACS team will visit UTSA during March 23-25, 2010 to review the reaccreditation plan. All UTSA students, faculty, and staff are encouraged to learn more about the QEP by visiting the website www.utsa.edu/qep