



### Course Syllabus

<b>COURSE NUMBER:</b> <u>EDUC 3125.03</u>	<b>COURSE TITLE</b> <u>Technology in the Classroom:</u> <u>Mathematics</u>	<b>TERM:</b> <b>Sp 2007</b>
<b>SITE:</b>  OnLine	<b>INSTRUCTOR CONTACT INFORMATION:</b> <b>Carol Schwab</b> 314-968-7177 schwabca@webster.edu home 314-487-1086	<b>CREDIT HOURS:</b>  3

#### 1. COURSE DESCRIPTION:

This course is offered online. It is a hands-on, project-based course designed to help future educators use technology creatively and effectively in support of curriculum in middle and secondary mathematics classrooms. Emphasis is on learning how to use calculators, software and the internet.

#### 2. LEARNING OUTCOMES:

Course Outcomes	Program Goals	SoE Goals, SoE Dispositions, and MoSTEP/Prof Standards Addressed
Describe terms, concepts and trends in the use of technology with middle school, secondary, and special education students.		(MO-STEP 1b, 3a, 5a; CC5-K3)
Select and evaluate web sites to determine appropriate use in the classroom.		(MO-STEP 1b, 5a; CC5-K3)
Plan for the use of technology as an integrated part of the curriculum		(MO-STEP 1b, 5a; CC5-K3)
Use spreadsheets, word processing (with equation editor) with students and as teacher utilities.		(MO-STEP 1b, 5a)
Use the Internet for research and email		(MO-STEP 1b, 5a)
Design an integrated lesson using technology		(MO-STEP 1b, 5a; CC5-K3)
Demonstrate competency with a variety of mathematical software and hardware		(MO-STEP 1b, 5a)



### 3. Schedule of required readings, class preparations and assignments, lectures, discussions, student presentations, out-of-class assignments and exams.

This course is taught online and a large part of it is individual work. It involves reading, experimenting, and writing. There are multiple small units worth a varying number of points. There will be units on the web, using calculators and accessories, math specific software, math classroom software, spread sheets, professional videos, etc. Depending on the unit, you will be asked to write a short report, plan a classroom activity, or do an assignment to demonstrate proficiency. For each unit you will also be required to write a brief learning log indicating a day by day record of how much time was spent and what was accomplished. The log should be informal as if you were telling a friend how you spent your time. It can include positive and negative comments as to the usefulness of the content and organization of the assignment.

With a few exceptions the units may be worked in any order. Some units require special materials such as calculators. They may be picked up at the circulation desk of the library (314-968-6952). This is a 16 week 3 credit hour on-line course. After you are registered go to <http://www.webster.edu/worldclassroom/> to learn about the Webster University WorldClassRoom. This site has step-by-step instructions about how to set up your computers for a WebCT course ([http://www.webster.edu/worldclassroom/tech\\_requirements.html](http://www.webster.edu/worldclassroom/tech_requirements.html).)

If you have never taken a WebCT course before, you are strongly recommended to go through the entire "Student Information Center - WebCT Orientation" on your MyWebCT page to learn about the various WebCT tools.

### 4. RESOURCES:

#### *Required Text(s):*

Assignments are available on the web. Some units require special materials such as calculators. They may be picked up at the circulation desk of the library (314-968-6952).

### 5. EVALUATION: (basis of evaluation with explanation regarding the nature of the assignment and the percentage of the grade assigned to each item below)

Points for each activity will vary from 5 to 14 points. The list of units includes the maximum number of points each unit is worth. If you do part of a unit you will earn a portion of the points. For an A grade 160 points are needed. 150 A-, 140 B+, 130 B, etc. It is important in an on-line course to pace yourself and not wait to turn in all your work in the last week or two. I encourage you to keep a steady pace of turning in about 10 points of work a week. **Please email me (schwabca@webster.edu) each time you submit an assignment.** I will attempt to grade your work quickly.

### 6. GRADING SCALE:

For an A grade 160 points are needed. 150 A-, 140 B+, 130 B, etc.

**Note: ALL PAPERS/PROJECTS MAY BE RETURNED VIA A SELF-ADDRESSED, STAMPED ENVELOPE. PAPERS ARE NOT AVAILABLE FOR PICK-UP IN THE SoE OFFICE.**

## ACADEMIC HONESTY POLICY

**(You may use or modify this statement or create your own).**

**Students at Webster University are expected to practice academic honesty.**

### **Avoiding Plagiarism**

Plagiarism is intentionally claiming that another person's work is his/her own or implying that another person's work is his/her own (through inadequate or inaccurate citations of reference material.)

#### **Students:**

- Should not copy whole portions of text from another source as a major component of papers or projects.
- Should identify the title, author, page number/webpage address, and publication date of works when directly quoting small portions of texts, articles, interviews, or websites.
- Should appropriately identify the source of information when paraphrasing (restating) ideas from texts, interviews, articles, or websites.
- Should follow the guidelines of the American Psychological Association Style Guide when referencing all research sources.

#### **Consequences of Academic Dishonesty:**

**(Instructor may list specific consequences here)**

For further information about the consequences of academic dishonesty please consult the Webster University Student Handbook.

## ACCESSIBILITY/ACCOMMODATIONS POLICY

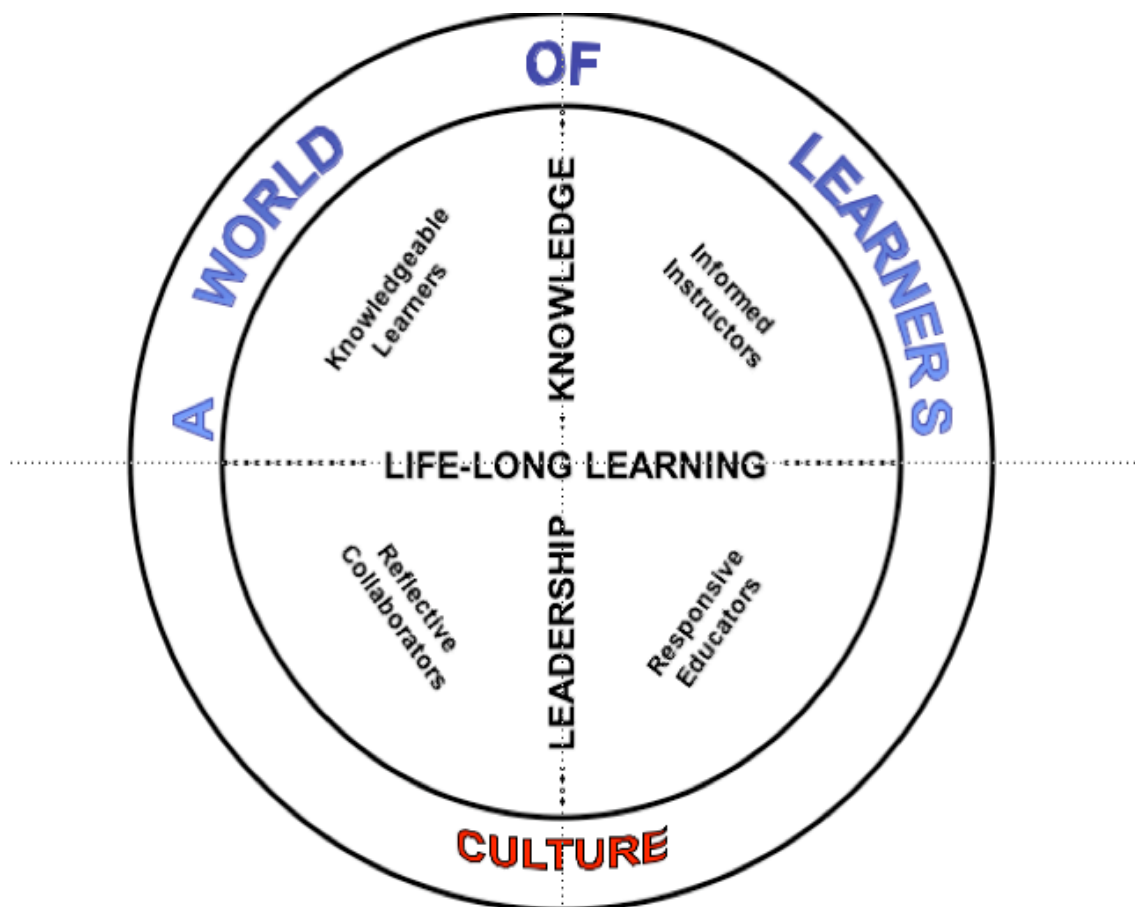
If you have a disability that may have some impact on your work in this class and for which you may require accommodations contact the Director of the Academic Resource Center, Dr. Pat McLeese, at (314) 968-7495.

**Webster University  
School of Education**

**Vision:** “. . . We all must work to make this world worthy of its children.” (Casals, 1970)

**Mission:** The School of Education at Webster University provides its students with the knowledge, experiences, and practical tools that help them guide both themselves and others toward lifelong learning. The School of Education is a community of educator-scholars who apply critical reflections and creative energies to enhance learning in schools and other educational settings. The faculty strives to support this community by modeling effective teaching practices based on sound theory and research. Personalized approaches create a challenging, yet supportive environment that permits the risk-taking necessary for learning and growth. The School of Education encourages its faculty and students to work actively toward this end, keeping in mind that action must be rooted in visionary, yet realistic, thinking. This thought and action process underscores the development of an inner-directed self-understanding, an outer-directed global perspective, and an appreciation of human diversity that arises from both.

**Theme:** Developing a world of learners through knowledge, leadership, and life-long learning.



The universal mandala (a circle with intersecting vertical and horizontal lines) graphically represents the conceptual framework of the School of Education. The outer circle provides the framework for a “world of learners” in cultural settings. The two axes represent the theme components of knowledge, leadership, and life-long learning. These lines are broken to emphasize the fluid relationship of the goals and integrated concepts. Each quadrant represents one of the school’s four goals for its candidates: to develop knowledgeable learners, informed instructors, reflective collaborators, and responsive educators.

## School of Education Goals

1. Education candidates will demonstrate knowledge of the subject matter, knowledge of the learner, and knowledge of pedagogy based on inquiry and scholarship.

### The knowledgeable learner:

- 1.1 knows content that supports conceptual understanding;
  - 1.2 applies tools of inquiry to construct meaningful learning experiences;
  - 1.3 identifies developmental factors in student learning; and
  - 1.4 understands theoretical principles of effective instruction to plan learning experiences.
2. Education candidates will incorporate multiple assessment and instructional strategies to support effective educational practices based on research and theory.

### The informed instructor:

- 2.1 designs curriculum based on students' prior knowledge, learning styles, strengths, and needs;
  - 2.2 understands and uses a range of instructional strategies;
  - 2.3 uses a variety of communication modes, media, and technology to support student learning; and
  - 2.4 employs a variety of formal and informal assessments to monitor learning and modify instruction.
3. Education candidates will reflect on the roles educators take as leaders of change through collaboration with colleagues, students, and families in schools and communities.

### The reflective collaborator:

- 3.1 values and integrates reflection to grow as a professional;
  - 3.2 promotes communication and collaboration with colleagues, families, and community leaders;
  - 3.3 seeks relationships with families and students to support student learning; and
  - 3.4 initiates change that benefits students and their families.
4. Education candidates will demonstrate respect for diversity through responsive teaching and learning that values individual differences.

### The responsive educator:

- 4.1 understands and responds appropriately to issues of diversity
- 4.2 acknowledges social and cultural contexts to create effective teaching and learning environments;
- 4.3 adapts instruction to the learner's knowledge, ability, and background experience; and
- 4.4 identifies resources for specialized services when needed.

## School of Education Dispositions

NCATE defines dispositions as "the values, commitments and professional ethics that influence behaviors toward students, families, colleagues, and communities and affect student learning, motivation, and development as well as the educator's own professional growth. " (Professional Standards, p. 53) There is significant value in focusing attention on qualities that make an effective teacher.

1. Understands and Respects Self
  - 1.1 Understands and respects that s (he) may be different from others
  - 1.2 Embraces an openness to change (adaptability, flexibility)
  - 1.3 Exhibits curiosity
  - 1.4 Engages in reflection
2. Understands and Respects Others
  - 2.1 Understands, respects, and responds appropriately to diversity in a variety of settings
  - 2.2 Exhibits empathy
  - 2.3 Commits to fairness and honesty
  - 2.4 Listens respectfully to other points of view

3. Understands and Respects Professional Communities
  - 3.1 Commits to professional behavior in university and school cultures
  - 3.2 Practices informed decision-making in university and school cultures
  - 3.3 Communicates and collaborates in university and school cultures
  - 3.4 Accepts academic rigor (willingness to work/ high expectations)
  - 3.5 Affects change with courage and confidence

**(Attach Specialty Program Area Professional Standards, MoSTEP General Standards, and MoSTEP Subject specific competencies if desired).**