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Office Hours: Tuesday, Wednesday and Thursday by appointment  
Course Website (Blackboard): https://elearn.uta.edu/

Course Information  
Course Title: Curriculum Design, Implementation, and Evaluation  
Course Number: EDUC 5305  
Semester: Summer 2012  
Course Location and Time: SH 226, 9am-1pm  
June 11-14; June 18; June 20-22; July 2, 3, 5, 6

Catalog Description:  
An examination of theory and research in curriculum development, implementation, and evaluation is the focus in this course. There is also an emphasis on current trends in the content areas.

Description Specific to Section 007  
The general structure of this course engages students in active, inquiry-based science and problem-solving mathematics experiences that serve the purposes of a) learning to use research-based, proven mathematics and science teaching practices according to state and national standards and b) translating mathematics and science concepts into meaningful learning experiences and readily usable curricula for K-12 students. The specific goals of this course are as follows.

1. To gain understanding of the nature of science/mathematics, the purpose of mathematics/science education, and the nature of learners to help students learn in ways consistent with these research-based foundations of teaching and learning science and mathematics.
2. To develop in-depth knowledge of the National Science Education Standards and National Council of Teachers of Mathematics Principles and Standards as they relate to scientific inquiry/problem solving, subject matter concepts and nature of science/math. In addition, students will be able to apply these standards in preparing high quality teaching and learning experiences for elementary and secondary school students.
3. To gain understanding of the unique qualities of students, in terms of intellectual, social and emotional development, so we may be better prepared to accommodate to their learning needs.
4. To gain experience in critically analyzing science and mathematics content,
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lessons, curricula, assessment and mathematics/science education literature (research articles, practitioner articles, Internet sites), for the selection and/or modification of appropriate and meaningful learning experiences for students.

5. To construct and present original standards-based, inquiry-based (learning cycle – 3 phase or 5-E) and/or cognitively demanding curricula for K-12 students based on mathematics and science activities abstracted from various sources including texts, laboratory books, and the Internet; and in these lessons, effectively incorporating attention to diversity, authentic assessments, children’s intellectual, social and emotional development, integration with other school subjects, and technology.

6. To become familiar with national and state science and mathematics associations as well as research and teaching resources in science and mathematics education to begin developing a foundation for continued professional growth and enhancement.

Learning Outcomes:

Upon completing this course, you should be able to:

1. Identify the etiologies that have shaped science and mathematics education reform in curriculum design, implementation and evaluation.

2. Implement a wide range of specific assessment techniques to aid in effective science and mathematics instruction.

3. Lead, facilitate, and contribute to academic discussions related to topics/issues in mathematics, science, and technology.

Conceptual Framework

The work of the College of Education is grounded in constructivism as a theory of teaching and learning and is done in a spirit of expectation that all involved in the College of Education, whether candidate, faculty or administrator, will hold the following as important: Excellence, Student-Centered Environments, Research, Collaboration, Diversity, Technology, Field Experiences and Life-Long Learning.

“Partners for the Future” serves as the theme of the College of Education and epitomizes the understanding that it takes a village of partners to insure the future of education for all.

University Mission

The mission of The University of Texas at Arlington is to pursue knowledge, truth and excellence in a student-centered academic community characterized by shared values, unity of purpose, diversity of opinion, mutual respect and social responsibility. The University is committed to lifelong learning through its academic and continuing education programs, to discovering new knowledge through research and to enhancing its position as a comprehensive educational institution with bachelor’s, master’s, doctoral and non-degree continuing education programs.

College Mission
**EDUC 5305 Curriculum Design, Implementation, and Evaluation**

The mission of the UTA College of Education is to develop and deliver educational programs that ensure the highest levels of teacher, administrator, and allied health science practitioner preparation and performance. As a recognized contributor to the fields of education and allied health science, the College engages in effective teaching, quality research, and meaningful service. The College is committed to diversity and to the advancement of active teaching and learning in all educational environments and at all levels.

**Core Values:** Effective Teaching, Active Learning, Quality Research, and Meaningful Service

**Textbook(s) and Materials**

**Required:**

<table>
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<tr>
<th>Science</th>
<th>Mathematics</th>
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- Composition book or journal  
- Composition book or journal  
- Copy of your curriculum from your school |

**Everyone:**

**Tk20:** The College of Education and Health Professions is pleased to announce the adoption of Tk20, a comprehensive data management system that will provide us with powerful tools to manage our growth and streamline our processes to enable us to meet your needs more efficiently and effectively. As with other course materials, you will need to subscribe to the program for a one-time only, non-refundable cost of $100. You may purchase your subscription online from a link provided on the system’s Web site or from the UT Arlington Bookstore as you would a textbook or other course materials. Please see the letter from Dean Gerlach at [http://www.uta.edu/coehp/tk20](http://www.uta.edu/coehp/tk20) and also for more information. If you have purchased Tk20 for a previous course, you **do not need to purchase again.**
Optional:


We will discuss chapters 5 & 6 only. These chapters will be available in the library however you are not required to read them.

Supplemental Web Sources:


http://www.nap.edu/books/0309053269/html/index.html


http://standards.nctm.org/document/appendix/numb.htm


*Texas Essential Knowledge and Skills (TEKS), Science*. Texas Education Agency, 2006. Subchapter A (elementary school):


http://ritter.tea.state.tx.us/rules/tac/chapter111/ch111a.html and Subchapter B (middle school):

http://ritter.tea.state.tx.us/rules/tac/chapter111/ch111b.html

Course Prerequisites

There are no prerequisites for this course.

Grade Calculation

The points earned will be transformed to percentages/100. The grading system as per UTA policy is as follows.

- **A** = 90 – 100
- **B** = 80 – 89
- **C** = 70 – 79
- **D** = 60 – 69
- **F** = Below 60
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The course website found at [www.elearn.uta.edu](http://www.elearn.uta.edu) will be utilized where some electronic course materials and additional resources will be posted. Email messages and other discussion/correspondence will take place via the course website, as well as student posting of assignments and course grading. **Utilizing this website is a required function of the course. Students must access course materials and be able to post assignments on the course Black Board website to be successful in this course.**

**Drop Policy**

If you choose to withdraw from the course for any reason, you must follow University procedures. It is your responsibility to execute these procedures correctly and within the deadlines.

**Student Expectations**

This course is designed to engage students in active learning toward enhancing the knowledge and skills of science, math and pedagogy as would be expected for graduate level expertise. Full participation in course modules, assignments, discussions, reflections and inquiry investigations is expected and required.

**UNIVERSITY AND COLLEGE OF EDUCATION POLICIES**

1. **Academic Integrity/Honesty Statement:** This experience demands a high level of scholarly behavior and academic honesty on the part of all students. Examples of academic dishonesty include but are not limited to: (1) turning in work as original that was used in whole or part for another course and/or instructor without obtaining permission from this instructor in advance; (2) turning in another person’s work, in part or in whole, as your own; (3) copying from professional works without citing them; and (4) any form of cheating on exams. Violations of academic integrity/honesty while carrying out academic assignments may, at the discretion of the instructor, receive a zero on the particular work in question, receive an “F” in course, or be brought before a higher level of governance for possible dismissal from the university. Discipline may include suspension or expulsion from the University. This is a matter of professional ethics for anyone involved in the field of education. According to the UT System Regents Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22: **Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student or the attempt to commit such acts.**

To learn how to properly acknowledge sources, complete the UTA Library’s tutorial located at [http://library.uta.edu/tutorials/Plagiarism/](http://library.uta.edu/tutorials/Plagiarism/).

2. **Americans with Disabilities Act:** The University of Texas at Arlington does not discriminate on the basis of disability in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs.
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and activities, as specified by federal laws and regulations. Copies of this document may be obtained in the Office for Students with Disabilities located in the University Center, lower level, UTA. The student has the responsibility of informing the course instructor (at the beginning of the course) of any disabling condition, which will require modification to avoid discrimination. As a faculty member, I am required by law to provide “reasonable accommodation” to students with disabilities, so as not to discriminate on the basis of that disability. Student responsibility primarily rests with informing faculty at the beginning of the semester and in providing authorized documentation through designated administrative channels.

3. **Student Support Services Available:** The University of Texas at Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses. These resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals to resources for any reason, students may contact the Maverick Resource Hotline at 817-272-6107 or visit [www.uta.edu/resources](http://www.uta.edu/resources) for more information.

4. **Grade Grievance:** The student has one calendar year from the date the grade is assigned to initiate the grievance. The normal channels are course professor, department chair, academic dean, and the Provost.

5. **Class Location Unavailable:** Should our class meeting site become unavailable for any reason, another location will be provided in order to take exams or make presentations that might have been interrupted.

**LATE WORK AND ATTENDANCE POLICY**

All assignments turned in late will lose at least (if not more than) 25% of the possible points for each class day after the assignment is due. No exceptions. Late means submitted to Dr. Parker’s email after 11:59pm on the due date. Late work must be turned in or an incomplete will be given for the course.

Attendance in this course is compulsory. Students are expected to be in class on time and to stay the full length of the class. There will be one allowed absence. However, this does not excuse one from needing to make up the missed work. After the first absence, the course grade will be reduced one letter grade for each absence. After the second absence, the course grade will be a B at best. After the third absence, the course grade will be a C at best. Beginning with the fourth absence, the course grade will be an F.

**COURSE ORGANIZATION**

This course is organized around reading, discussing, and synthesizing the literature on curriculum design, implementation, and evaluation in mathematics, science, and
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technology. For each session, there will be assigned readings that will serve as the focus of discussion. Each person will lead at least two class sessions of critique/discussion of the readings. The course schedule (separate handout) outlines the topics, readings, and assignments to be covered during each class session.

**Email Communication:**

UTA e-mail will be considered the official means of communication between the university and students, effective August 22, 2005. Utilize your UTA e-mail for all communications except those as specified by your professor (e.g., Black Board discussion postings, announcements, etc.). You are responsible if you do not receive information because you do not regularly check your UTA email and Black Board.

**Course Assignments:**

1. **Lesson Facilitation (LF) or Micro-Teaching**
   Total: 35%

2. **Participation/Disposition**
   Total: 15%

3. **Professional Development Assignment**
   Total: 25%

4. **Curriculum Revision**
   Total: 25%

**TOTAL FOR ALL ASSIGNMENTS: 100%**

Assignments are to be submitted to Blackboard or emailed to the instructor in an attachment (unless otherwise noted) by 11:59 p.m. on the due date. Since every student is emailing their assignments, please name your file in the following way: “Last Name FirstName AssignmentTitle.doc” or “LastName_FirstName_AssignmentTitle.doc” as opposed to just the name of the assignment. I prefer only electronic copies of assignments. If you use a program other than Microsoft Word, please use .rtf (rich text file). Thanks!
Grade Calculation:

The points earned will be transformed to percentage of course grade as described on page seven. The grading system as per UTA policy is as follows.

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\begin{align*}
A &= 90 - 100 \\
B &= 80 - 89 \\
C &= 70 - 79 \\
D &= 60 - 69 \\
F &= \text{Below 60}
\end{align*}
\]

NOTE: Any changes in this syllabus will be communicated to you in class by the instructor.

Purchasing the Tk20 system

Go to [http://www.uta.edu/coehp/tk20/](http://www.uta.edu/coehp/tk20/) and you will see the following screen.

Click on “The UTA Tk20 System”, which will take you to the following login screen below.

Click on “Click here to purchase or register your student account” which will take you to the screen below.
Select “I need to purchase my 7 year Tk20 account ($100)” and then click “Continue” which will take you to the next screen and then the rest should be self-explanatory.

Logging in to the Tk20 system

Once you have purchased Tk20 you do not have to pay the $100 again for any future courses because you have paid for 7 years of access to the system.

To log in, go to http://www.uta.edu/coehp/tk20/ and you will see the following screen.

Click on “The UTA Tk20 System”, which will take you to the following login screen below.
Then follow the instructions in an excellent tutorial on the Tk20 system:
http://tk20.com/support/swf/login.html