

UNDERGRADUATE CURRICULUM PROPOSAL COVER SHEET

UTC
MAY 18 2011

Title of Proposal – Must begin with Department Abbreviation:

Combining the content of UTSM 1010 (1) and UTSM 1020 (1) into a new class, UTSM 1030 (2)

Check One: Full Proposal or Information Item

Effective Date for Curricular Offering: Spring 2012

FROM: Sandy Watson/Stephen Kuhn, UTeaChattanooga, CANX 110/111, 2552/2553, sandy-watson@utc.edu/stephen-kuhn@utc.edu
(proposal originator: include spokesperson's name, department, office number, telephone, e-mail)

Does this require new resources from the originating department or other department? No
Please include an explanation if yes.

Faculty of the originating department approved this proposal on May 17, 2011 (date),
by a vote of 4 aye votes; 0 nay votes; 0 abstentions; 0 eligible voting members absent.

The following have examined this proposal:

Dept Head/Director: Stephen Kuhn/Sandy Watson
Printed name Signature, date Approve Neutral Disapprove*
Stephen Kuhn ✓
Sandy Watson ✓

College Curriculum Committee Date: _____ Vote: _____ Signature of Chair: _____

Spokespersons for Affected Departments:

Printed Name, Department	Signature, Date	Approve	Neutral	Disapprove*
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Dean/Director: H. Burkenn *H. Burkenn 5/17/11* ✓

University Registrar: Linda Orth *Linda Orth 5/18/11* Comments

A. Provost/Representative: J. Sanders *J. Sanders 5/23/11* ✓

Lab/studio fee requested:

Provost: Phil Oldham
Printed name Signature, date Approve Disapprove*

*Those who disapprove may attach an explanation

ACTIONS on this proposal:	Curriculum Committee	Faculty Senate
Date the proposal was considered	<u>10-26-2011</u>	<u>12.1.11</u>
Vote of the body:	<u>13-0-0</u>	<u>16-0-0</u>
Accepted as information item (indicate date)	_____	_____
Approved as submitted (indicate date)	<i>[Signature]</i>	<u>12.1.11</u>
Approved with amendments (amendments indicated and transmitted to all signatories above, date):	<u>10-26-2011</u>	_____
Signature of Chair:	<i>[Signature]</i>	<i>[Signature]</i>

Proposal to combine the content of UTSM 1010 and UTSM 1020 and offer the new combination class as UTSM 1030.

A. Rationale to Combine UTSM 1010 and 1020

UTeaChattanooga currently offers two introductory, one-credit-hour courses, (UTSM 1010: Step 1: Inquiry Approaches to Teaching Math and Science, UTSM 1020: Step 2: Inquiry Based Lesson Design in Mathematics and Science) that students take prior to formal admission to the UTeaChattanooga program. These courses are designed to pique students' curiosity about teaching by getting them out into elementary and middle schools where they start teaching hands-on inquiry based lessons right away under the supervision of UTeaChattanooga master teachers and classroom mentor teachers. This sequence works well for freshmen and first semester sophomores, but many students who are further along in their studies would like the opportunity to accelerate entry into the UTeaChattanooga program. Therefore, we request the creation of a new course that is a combination of the UTSM 1010 and UTSM 1020 courses which will be called: *UTSM 1030: Step One/Step Two: Inquiry Based Mathematics and Science Teaching*, and will combine critical elements of UTSM 1010 and UTSM 1020, introducing theory and practice necessary to design and deliver inquiry based instruction to both elementary and middle school students.

UTSM 1030 will satisfy all requirements that UTSM 1010 and UTSM 1020 taken sequentially will satisfy. Since the two one-hour courses, UTSM 1010 and UTSM 1020, are designed to be taken in sequence and 1020 is designed to depend on what students learn in 1010, we will not allow students to take them at the same time. However, by designing 1030 to carefully blend the material in the other two courses into a single two hour course, students who have fewer semesters remaining before graduation can be fully admitted to the UTeaChattanooga program more quickly. Since 1030 is a more intensive course and has a much more substantial field requirement than do either 1010 or 1020, the course will typically be placed in the schedule with a zero limit so the UTeaChattanooga department can ensure that students in this course would not be better placed in 1010 and that students who enroll in the course will fully understand the course requirements.

B. Economic and Pedagogical Consequences of the Proposal

There are no expected economic consequences of the proposed new course. The UTeaChattanooga program is funded by the Tennessee Higher Education Commission with a four-year grant of \$ 1.7 million from the U.S. Department of Education as part of Tennessee's Race to the Top award through the American Recovery and Reinvestment Act of 2009. The program will not need to hire any new faculty members to teach the new course, but will rely on current Master Teachers, Ms. Keri Randolph and/or Ms. Lisa Wilkes to teach the course, both of whom have sufficient expertise and interest in the new course to ensure its continued coverage. Since the course is a combination of two courses already offered, and taught by current Master Teachers, there are no expected effects of adding the course on any other current courses in the program, nor will there be additional ancillary materials required by the combination course not already in UTeaChattanooga's possession.

C. How the Proposal Relates to Requirements and Resources in other Departments or Programs

The proposal to combine UTSM 1010 and UTSM 1020 is not expected to impact the requirements or resources of any other department or program in any way.

D. Catalog Description

UTSM 1030, Step One/Step Two: Inquiry-Based Mathematics and Science Teaching (2)

Introduction to mathematics and science teaching as a career. Discussions include standards-based lesson design; various teaching methods designed to meet instructional goals; behavior management strategies; and learner goals. The course emphasizes lesson planning and assessment of student

learning. Students develop and teach five inquiry-based lessons, three to students in middle grades and two to students in grades three to five, all in local elementary and middle grades schools, and participate in peer coaching. Every semester. Field component. No credit toward Education degree. *Prerequisite: Junior or Senior standing ^{and} consent of UTeaChattanooga Co-Director.*

For comparison we include the catalog descriptions of UTSM 1010: Step 1: Inquiry Approaches to Teaching Mathematics and Science and UTSM 1020: Step 2: Inquiry Based Lesson Design in Math and Science

UTSM 1010: Step One: Inquiry Approaches to Teaching Mathematics and Science (1)
Introduction to mathematics, and science teaching as a career. Discussions include standards-based lesson design and various teaching and behavior management strategies. Fieldwork consists of planning and teaching three inquiry-based lessons to students in grades three to five in local elementary schools. Every semester. Field component. No credit toward Education degree.

UTSM 1020: Step Two: Inquiry Based Lesson Design in Math and Science (1)
Topics include routes to teacher certification in mathematics and science; various teaching methods that are designed to meet instructional goals; and learner outcomes. Students develop and teach three inquiry-based lessons in their field in a middle school and participate in peer coaching. Every semester. Field component. No credit toward Education degree. *Prerequisite: UTSM 1010 with a grade of at least C or consent of UTeaChattanooga Co-Director.*

E. Course Objectives:

Students will be able to...

- demonstrate science or mathematics content knowledge in the planning and teaching of two upper elementary grade lessons and three middle school lesson aligned with district curricula
- identify the unique attributes of adolescent students and implement teaching strategies that are effective in the middle school environment
- utilize exemplary sources of inquiry-based science and mathematics lessons
- write performance objectives aligned with national and state standards and assessments of those objectives for each lesson
- design and teach inquiry-based lessons using the 5E Instructional Model
- demonstrate awareness of personality and learning differences and discuss the implications for teaching and learning
- use probing questions to elicit feedback to determine students' acquisition of knowledge
- discuss strategies for achieving instructional equity
- demonstrate proficiency in the use of technology for professional productivity purposes
- plan for and implement safe classroom practices
- reflect on personal interest in teaching
- design and teach lesson that incorporate the use of technology
- use pre and post assessments aligned to performance objectives to evaluate student learning, to provide instructive feedback to middle school students, and as a basis for revising lesson plans
- provide instructive feedback to peers
- reflect on teaching experiences to revise lesson plans
- assess commitment to pursue teaching as a career

F. Sample Syllabus:

Step One/Step Two:
Inquiry-Based Mathematics and Science Teaching
COURSE SYLLABUS- Fall 2011

Course: USTU 1999, Section 99, CRN 44159, TR 3:05- 4:35

Title: UTSM 1030, Step One/Step Two: Inquiry-Based Mathematics and Science Teaching

Credit: Two Credit Hours

Faculty: Keri Randolph

Faculty office hours: By appointment

Faculty office location: Collins Street Annex 112

Faculty contact information:

Keri Randolph

Collins Street Annex 112

Office phone: 425-2555

Cell phone: 598-2048 (no calls after 10 pm)

keri-randolph@utc.edu

Prerequisite: Interest in exploring the career of teaching.

Course Catalog Description: UTSM 1030, Step One/Step Two: Inquiry-Based Mathematics and Science Teaching (2)

Introduction to mathematics and science teaching as a career. Discussions include standards-based lesson design; various teaching methods designed to meet instructional goals; behavior management strategies; and learner goals. The course emphasizes lesson planning and assessment of student learning. Students develop and teach five inquiry-based lessons, three to students in middle grades and two to students in grades three to five, all in local elementary and middle grades schools, and participate in peer coaching. Every semester. Field component. No credit toward Education degree. *Prerequisite: Junior or Senior standing or consent of UTeaChattanooga Co-Director.*

Course Rationale

Students who want to explore teaching careers become familiar with the elementary and middle school environments by observing and discussing elementary and middle school classrooms, and by teaching two lessons in an elementary class and three lessons in a middle school class. They build and practice lesson design skills and also become familiar with excellent science and mathematics curricula for both the elementary and middle school settings. As a result of their experiences in both these settings, students generally will be able to make a decision as to whether they want to pursue a pathway to teacher certification through the UTeaChattanooga program.

Course Overview

There are two class meetings per week on campus for a total of three hours. During the first 6 weeks of the semester, students will complete the Step 1 component of the class. During the remaining 9 weeks, students will complete the Step 2 component of the class. During class time students learn about the

elementary and middle school environments, and study, design, and analyze the results of inquiry-based lessons. During the field experiences, students teach the lessons they have prepared.

In the Step 1 part of the course, UTeaCh students teach to elementary school students (grades 3, 4, and 5); they are required to observe once and then teach two inquiry-based lessons. In the Step 2 part of the course, UTeaCh students teach middle school students (grades 6, 7, and 8); they are required to observe once and then teach three inquiry-based lessons. They usually teach in teams.

The course emphasizes writing good 5E lesson plans, with a focus on the importance of using appropriate questioning and assessment strategies throughout the lesson. Students develop pre- and post-assessments for performance objectives. For their final product, students analyze and modify one of the lessons they taught, taking into account the results of the assessments, their reflection on how successful the lesson was, and feedback from observers (Mentor Teacher, Instructor, or Teaching Partner).

Required Supplies: Professional classroom dress that meets the criteria in the dress code for Hamilton County Schools.

Course Objectives

After completing Step 1/Step 2, students will be able to:

1. Utilize content knowledge to plan and teach two elementary and three middle school lessons;
2. Make use of exemplary sources of inquiry-based science and mathematics lessons;
3. Design and deliver five inquiry-based lesson plans using the 5E model;
4. Write measurable and observable lesson objectives and design assessments of those objectives;
5. Use and evaluate the appropriateness of technology;
6. Use probing questions to elicit feedback to determine students' acquisition of knowledge;
7. Use pre- and post-assessments to evaluate student learning and as a basis for revising a lesson plan;
8. Provide instructive feedback to peers;
9. Reflect on teaching experiences in order to revise lesson plans;
10. Implement safe classroom practices;
11. Consider the unique attributes of adolescents in order to implement teaching strategies that are effective in the middle school environment;
12. Assess decision to pursue teaching as a career path.

CLASS PARTICIPATION/ATTENDANCE POLICY:

Twenty-five points in each part of the course (out of 100) of your grade are based on attendance and active participation in all class sessions. You will lose five points for every absence. Credit for attendance requires arriving to each class session on time, participating in all class activities, and staying until the session ends. If you arrive late or leave early, you will lose 2 points of your attendance grade. Arriving more than 15 minutes late for class will constitute an absence. While there are very few legitimate reasons for missing this class, if you believe you have a legitimate reason for being absent you need to discuss it with your instructor as soon as possible. However, it remains your responsibility for getting all

the information from class and meeting with the instructor. In order for an absence to be considered “excused” you must:

- Contact the instructor on or before the class day with an explanation.
- Meet with the instructor to make-up the class session.
- Contact your teaching partner to coordinate the next lesson.

Attendance is important because in class you will: 1) plan and practice your lessons with your partner; 2) get feedback from the Instructors and other members of the class regarding your lessons; and 3) observe and learn from demonstration lessons. Because the course meets only twice per week and there are no texts, missing class means you will miss essential information and experiences.

Furthermore, most Step 1/Step 2 students will be working with a partner. The workload for each lesson should be shared equally. If you are not in class, you inconvenience your partner by forcing him or her to work with you outside of class. If you miss a class, it is your responsibility to communicate with your partner about how to coordinate the next lesson. Don’t leave your partner guessing about why you are not in class, or how and when you will get together!

CELL PHONE/ELECTRONIC DEVICE POLICY: ALL electronic devices (e.g. computers, cell phones, iPods, etc.) must be turned off and put away when you are in this class. Anyone listening to music, sending texts, reading messages, or making/receiving phone calls is subject to significant reductions in his or her grade. To be fair, if *my* cell phone rings during class every student in class will have points added to his/her grade.

LATE ASSIGNMENT SUBMISSION/MAKE-UP POLICY: If an assignment is turned in late, 10% will be deducted for each calendar day late. Assignments/fieldwork missed due to excused absences only will be allowed to be made up within five working days of returning to school following absence.

ASSIGNMENTS/GRADING POLICY:

Grading Policy for Step 1 Portion of Course:

Attendance and participation. You will lose five points for every absence. 2 points for every tardy.	25
Two <u>complete Lesson Plans</u> (10 points for each)	20
Form signed by Instructor showing approval to teach (one for each lesson, 5 points each). (LAA-Lesson Activity Approval Form)	10
Teaching the lessons, as evidenced by the Mentor Teacher Feedback Form (5 points each). Important: Teaching two lessons in an elementary classroom is a requirement of this course. Regardless of your final average, failure to teach all required lessons will result in a failing grade for the course.	10
Three Reflections (10 points each). These include: the Observation Reflection, Elementary Lesson 1 Reflection, and Elementary Lesson 2 Reflection.	30
Kit inventory – all materials returned and put back in appropriate place in inventory	5
Posts to discussion board (extra credit)	(6)
TOTAL	100

Grading Policy for STEP 2 Portion of Course:

Attendance and participation. You will lose five points for every absence and 2 points for every tardy.	25
Three complete Lesson Plans (10 points each). Up to five points will be awarded for the rough draft. (**Rough drafts must be emailed to mentor teacher as well as submitted via blackboard to instructor**) Up to 5 points will be awarded for the final lesson plan after requested revisions.	30
Teaching the lessons, as evidenced by submission of the Mentor Teacher Feedback Form (MTF 1=2pts, MTF 2 = 2pts, MTF 3 = 1pt) Important: Teaching three middle school lessons is a requirement. Regardless of your final average, failure to teach all three required lessons will result in a failing grade for the course.	5
Four Reflections (5 points each). These include: the Observation Reflection, Lesson 1 Reflection, Lesson 2 Reflection, and Lesson 3 Reflection.	20
Final Project: The final project will include a revised version of one lesson plan taught this semester, examples of student work produced during that lesson, and a short essay analyzing the student work and explaining your rationale for revising the lesson as you did. <u>More specific requirements will be outlined in class.</u>	20
TOTAL	100

GRADING SCALE: Grades will be assigned as follows:

$$100\% \geq A \geq 90\% > B \geq 80\% > C \geq 70\% > D \geq 60\% > F.$$

Any student who successfully completes the course with a grade of C or better will be reimbursed for the tuition for the course at the end of the semester.

ASSIGNMENTS:

The majority of assignments will be submitted electronically via the Assignment tab in BlackBoard (UTC Online) or through Google Docs. Please adhere to the following guidelines for the electronic submission of assignments:

- Please sign all emails with your first and last name. Emails in which the sender cannot be easily identified will be returned if possible (and late work penalties may apply). Use your UTC email address.
- Please use the following file naming conventions for submitting files in Google docs, and for the filenames of electronic documents. Files that are sent with ambiguous file names may be returned to the sender for correction (and late work penalties may apply).

Lesson Plan, Single author:

Last name + LP (for lesson plan) + the number of the lesson

Example: NewtonLP2

Lesson Plan, Multiple authors (in alphabetical order by last name):

Both Last names + LP (for lesson plan) + the number of the lesson

Example: CurieEuclidLP1

When submitting supplementary lesson materials (handouts, worksheets, assessments, etc.) please append an informative description to the above filename:

Example: NewtonLP2_Worksheet or CurieEuclidLP3_Prest

Reflections:

Last name + R (for reflection) + name of the reflection

Example: EinsteinRObservation or EulerRLesson2

Instructors will comment electronically on Google Docs

Example: CurieEuclidLP1_LK

TECHNOLOGY PROFICIENCY:

Step 2 students must be able to:

1. Use Blackboard/ UTC Online to access the course web site;
2. Create Microsoft Word documents;
3. Attach documents to email;
4. Check email daily. (Note: If you choose not to use a "utc.edu" email account, broadcast emails sent through Blackboard may be blocked by your email program's junk email filter. You are responsible for adjusting the settings to ensure that you receive emails from your Instructor and mentor teacher.)
5. Use Google Docs- post, edit and collaborate on documents.

If you need assistance to meet these requirements, please see an Instructor or GA. Help is available!

ADA STATEMENT: If you are a student with a disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) and think you might need special assistance or a special accommodation in this class or any other class, call the Office for Students with Disabilities/College Access Program at 425-4006 or come by the office – 110 Frist Hall or see <http://www.utc.edu/OSD/>

TEXTBOOK: None required. Readings will be posted on UTC Online.

COMMUNICATION: To enhance student services, the University uses your UTC email address for all communications. Please check your UTC email on a daily basis. If you have problems accessing your email account, contact the Help Desk at 423-425-4000. Announcements and course information will be posted on UTC Online.

COUNSELING STATEMENT: If you find that personal problems, career indecision, study and time management difficulties, etc. are adversely affecting your successful progress at UTC, please contact the Counseling and Career Planning Center at 25-4438 or <http://www.utc.edu/Administration/CounselingAndCareerPlanning/>

SCHOLASTIC DISHONESTY: Students who violate university rules on scholastic dishonesty (see the UTC Honor Code) are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the university. Since such dishonesty harms the individual, all students, and the integrity of the university, policies on scholastic dishonesty will be strictly enforced.

Honor Code Pledge: I pledge that I will neither give nor receive unauthorized aid on any test or assignment. I understand that plagiarism constitutes a serious instance of unauthorized aid. I further pledge that I will exert every effort to insure that the Honor Code is upheld by others and that I will actively support the establishment and continuance of a campus-wide climate of honor and integrity.

More complete details, examples and consequences of breaching the honor code can be found at:
<http://www.utc.edu/Administration/StudentDevelopment/handbook/academics.pdf>

FIELD EXPERIENCES:

In the Step 1 portion of the course, you will teach in an elementary school in Hamilton County Schools (HCDE). In the Step 2 portion, you will teach in a middle school science or mathematics class in HCDE. Over the course of the semester, you will visit this classroom to conduct observations (one observation at each school) and to teach inquiry-based lessons (two lessons at the elementary school, three lessons at the middle school). Early in the semester, pairs will meet their Mentor Teachers to decide on the dates of the observations and on the dates and topics of the lessons.

Your Mentor Teachers will give you feedback (electronically or in hard-copy) after each lesson you teach. Your Mentor Teachers will also write a final evaluation of your field experience, which will be mailed to and filed in the UTeach office; you may request a copy of the upon completion of the semester.

If you have a serious emergency and you must miss your scheduled teaching day, notify your partner, your Mentor Teacher, and your Instructor as soon as possible. Your partner will teach the lesson alone and you will be required to make up the missed teaching day. **Teaching the lessons is a requirement of Step 1/Step 2. Regardless of your final average, failure to teach all FIVE required lessons will result in a failing grade for the course.**

Do not miss your teaching assignment due to a transportation problem. Seek help:

Contact the UTeaChattanooga office: 425-2552

Contact your Instructor- see first page

Taxis: Mercury Cab 423-624-1084; Millennium Taxi 423-267-2008;

All American Taxi 423-867-6190

Supplies are available for you to borrow for use in your lessons.

PROFESSIONALISM IN THE FIELD:

As representatives of UTeaChattanooga and visiting teachers in Hamilton County and other partnering schools we expect you to be professional when participating in your field experiences for this class.

- You are expected to observe all partner school rules, policies, and procedures.
- Sign in at the front office of the school each day that you visit. Some schools will provide you with a sticker or badge that identifies you as a visitor. If you are given this kind of identification, wear it. Most schools prefer for you to wear your UTC ID.
- Dress professionally. UTC has a dress code for teachers, student teachers, and others in field placements. The dress code can be found on UTC Online. As guest teachers, you are expected to follow all parts of the UTC dress code. Of particular note is the restriction against wearing jeans, flip flops, jewelry in visibly pierced areas other than the ear, t-shirts, shorts, or exercise clothing.
- Arrive at least 30 minutes before your scheduled teaching time; arrive 1 hour before a technology or lab-based lesson to set up and troubleshoot equipment.
- Practice every aspect of your lesson before you teach it.
 1. Decide exactly how you and your partner will share the teaching responsibilities.
 2. Make a plan for how you will transition from each part of the lesson to the next.
- Learn and use the names of your students! Make name tags or name tents and bring them with you to each lesson. This is an easy and effective classroom management technique!

G. Student evaluation model:

Students' approved lesson plans, completion of field requirements, and written reflections on their teaching experiences are the basis for assessing performance and should account for the majority of the course grade. Because attendance at each class session is vital to students' success in the course, a substantial portion of the course grade will be determined by class attendance and participation.

Although the mentor teacher feedback provided after each lesson is critically important to students, this information is not used as performance assessment. Master teachers evaluate student's lesson planning skills through review of submitted lesson plans taking into account improvement in response to feedback. Master teachers also observe and evaluate each team of students during one of their lessons.

Mentor teachers (host teachers in the schools) are required to submit a final student evaluation form. While this final evaluation is not used as a basis for grading, it does provide valuable feedback both to master teachers and students.

For details of the grading scheme please see previous sample syllabus.