TRANSMITTAL for GRADUATE PROGRAMS: Changes or Proposals

I. INFORMATION:

A. Check all that apply: Existing Program [✓] New Program [ ]
   Name Change [ ] Credits Change [ ] Change in Curriculum [✓]

B. Program Title: STEMteach

C. Department(s) (Originating): Teacher Education
   D. College(s) (Originating): CEPS

E. Programs / Departments Consulted (Requires letters of comment from all departments or programs substantially affected. Signatures of dept. chairs & deans affected by this proposal are required on the attached addendum.):

   1) [ ] 2) [ ] 3) [ ] 4) [ ]

F. Catalog year of Implementation: Semester Summer Year 2016

G. Have all courses in this program been approved? Yes [ ] No [✓]

H. Attach Request Narrative
   Include in narrative on attached pages clarification concerning which courses have not been approved, and a rationale for the requested changes or creation of program. If requesting a program change also include a listing of course array for both the current and proposed program?

II. UNIT APPROVALS: Requires signatures of all Department Chairs and Deans whose programs will be substantially affected by the changes or proposal. Signature lines for the affected Departments and Colleges (noted in “E” above), are on the addendum to this form. These signatures should be obtained prior to review by all other shared governance levels.

   Department Curriculum Committee Chair (optional) [Signature] [Date]
   Department/Program Chair [Signature] [12-15-15]
   College Curriculum Committee Chair [Signature] [3-2-16]
   Dean of College [Signature] [12-6-15]
   Graduate Curriculum Cmtt. Chair [Signature] [2-24-16]
   University Curriculum Cmtt. Chair [Signature] [3-21-2016]
   Academic Policy & Program Cmtt. Chair [ ]
   Faculty Senate Chair [ ]
   Provost / Vice Chancellor [ ]
   Chancellor [ ]

*NOTE: The master copy of this transmittal & accompanying documents must be filed in the Provost’s office upon final approval. The Provost’s office will notify all appropriate administrative offices [Registrar, Office of Graduate Studies, Dean(s), Department Chair(s)] of approvals & necessary actions to implement changes.

Revised December 2012
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Revised December 2012
Rationale for Modified Master's Degree Pathways for the STEMteach MSE in Secondary Education Option

Background: STEMteach is a cohort-based initial teacher certification program for science, technology, engineering, and math (STEM) degree holders. The program includes the option to earn a master's degree in secondary education after successful completion of the one year initial certification coursework.

The program is being offered through Outreach and Continuing Education and is designed for people who

- realize relatively late in their undergraduate studies (i.e. junior or senior year) that they want to pursue teaching
- want to earn both a bachelor's degree in science or mathematics AND teaching certification
- want compact, rigorous, and STEM-focused teacher training
- have recently graduated but are not satisfied with their career options
- are working but want to make a career change to teaching

The STEMteach program was launched in June 2015 with a cohort of 8 teacher candidates. Surveys conducted by the UTeach Institute in Austin, as part of the NSF Robert Noyce Capacity Building grant, which has generously contributed funds toward the development and launch activities of the program, have revealed that all of the current candidates intend to complete the optional master's degree.

The goal of this request is to modify the structure of the master's degree requirements to best serve the initial licensure completers. This includes candidates who seek to complete the master's degree while working as a teacher as well as those who seek to focus on completing the master's degree before beginning a career in teaching.

The approved STEMteach program initial certification curriculum, the current Master's Degree Pathways, and the proposed Master's Degree Pathways are shown below. The three master's degree pathways (Plans A, B, and C) represent the standard graduate pathways in effect at the time of the program approval. The proposed Master's Degree Pathways reflect changes enacted under the approved Faculty Senate Motion 2014-2015/82.
(Approved) STEMteach Curriculum

Initial Certification Coursework (24 graduate degree credits, 30 total graduate course credits)

UTCH 701 Step 1 and 2 Combination (3 cr)
UTCH 702 Knowing and Learning in Math and Science (3 cr)
UTCH 703 Classroom Interactions (3 cr)
UTCH 704 Project-Based Instruction (3 cr)
UTCH 705 STEM Content Area Literacy (3 cr)
UTCH 706 Functions and Modeling (3 cr)
UTCH 707 Perspectives on Science and Mathematics (3 cr)
UTCH 708 Apprentice Teaching Seminar (3 cr)
*UTCH 709 STEM Apprentice Teaching for Secondary and Middle Grades (6 cr)

*Apprentice Teaching credits do not count toward required credits for optional master's degree

(Approved) Master's Degree Pathways (optional, 6-10 additional graduate credits)

Plan A (Thesis), 6 additional graduate credits:
   TED 760 Methods of Research (3 cr, on-line)
   TED 799 Thesis (also could be a STEM 799 course) (3 cr)
   Oral or written comprehensive exam

Plan B (Research Paper), 6 additional graduate credits:
   TED 760 Methods of Research (3 cr, on-line)
   TED 798 Independent Research (also could be a STEM 798 course) (3 cr)
   Oral or written comprehensive exam

Plan C (Additional Credits), 10 additional graduate credits:
   TED 760 Methods of Research (3 cr, on-line)
   7 credits of 500 level or greater coursework
   Oral or written comprehensive exam

Transfer or elective credits must be approved by the Program Director

All requirements for this degree must be completed within seven years from the start of the first term.
Proposed STEMteach Curriculum

Initial Certification Coursework (24 graduate degree credits, 30 total graduate course credits)

UTCH 701     Step 1 and 2 Combination (3 cr)
UTCH 702     Knowing and Learning in Math and Science (3 cr)
UTCH 703     Classroom Interactions (3 cr)
UTCH 704     Project-Based Instruction (3 cr)
UTCH 705     STEM Content Area Literacy (3 cr)
UTCH 706     Functions and Modeling (3 cr)
UTCH 707     Perspectives on Science and Mathematics (3 cr)
UTCH 708     Apprentice Teaching Seminar (3 cr)
*UTCH 709    STEM Apprentice Teaching for Secondary and Middle Grades (6 cr)

*Apprentice Teaching credits do not count toward required credits for optional master's degree

Master's Degree Pathways (optional, 6-10 additional graduate credits)

Plan A (Thesis), 6 additional graduate credits:
   TED 760 Methods of Research (3 cr, on-line)
   TED 799 Thesis (also could be a STEM 799 course) (3 cr)
   Oral or written comprehensive exam

Plan B (Research Paper), 6 additional graduate credits:
   TED 760 Methods of Research (3 cr, on-line)
   TED 798 Independent Research (also could be a STEM 798 course) (3 cr)
   Oral or written comprehensive exam

Plan C (Additional Credits), 10 additional graduate credits:
   TED 760 Methods of Research (3 cr, on-line)
   7 credits of 500 level or greater coursework
   Oral or written comprehensive exam

Transfer or elective credits must be approved by the Program Director

All requirements for this degree must be completed within seven years from the start of the first term.
This program change request seeks to update the master’s degree pathways so that they resemble the newly approved standard pathways in both nomenclature and structure while allowing more tailored approaches to completing the master’s degree.

(Proposed) Master’s Degree Pathways (optional, 6-10 additional graduate credits)

1. Thesis (6 additional credits; 30 total credits)
   TED 760, Methods of Research (3 credits)
   TED 799 Thesis (also could be a STEM 799 course) (3 cr)
   Oral or written comprehensive exam

2. Research Paper (6 additional credits; 30 total credits)
   TED 760, Methods of Research (3 credits)
   TED 780, Professional Development Practicum (also could be a STEMteach program approved TED or STEM-based 798 (Independent Research), 789 (Special Topics), or 793 course) (3 cr)
   Oral or written comprehensive exam

3. Capstone Experience (10 additional credits; 34 total credits)
   10 credits of approved graduate coursework

Transfer or elective credits must be approved by the Program Director

All requirements for this degree must be completed within seven years from the start of the first term.

In this proposed pathway, the Research Paper option (formally Plan B) has a broader array of courses with which candidates could research and mature in their fields. Specifically, TED 780 is included as a discrete and preferred option. As part of this “induction” course, new teachers will develop as educators by completing an action research project. This course is also intended to support new teachers with classroom concerns and with state mandated professional development and thereby promote inquiry, research, and reflection while fostering a commitment to lifelong learning and professional development. Having a strong foundation of support and information for teachers during their early years in the profession is intended to improve job satisfaction, teacher effectiveness, and retention.

The Capstone Experience (formerly Plan C) follows the lead of graduate studies to rename this option and to remove the requirement for TED 760. The latter has the effect of focusing this option on advanced content while making degree completion more accessible for new teachers who are working out of the region.

Finally, the name “Plan A” has been removed from the first option.
TED Faculty Meeting—April 19, 2016

**Present:** Brenda Wright, Elisa Nordin-Berghuis, Tyler Christensen, Hilary Pollack, Florence Monsour, Melina Papadimitriou, Susan Ahrendt, Molly Gerrish, Rachelle Haroldson, Satomi Shinde

**Not Present:** Amy Frederick, Katie Sciruba, Mary Wright, Michael Miller, Geoff Scheurman

**Guests:** Michael Martin and Diane Bennett

Meeting began at 3:37pm

1. **Approve Meeting Minutes:** Florence motioned to approve, Rachelle seconded, all in favor. Minutes approved.

2. **Updates**
   a. Molly shared that the EC/SPED search had 12 applicants and will be doing phone interviews with 5 of them next week (April 26 & 28).
   b. Hilary shared that the MSE redesign proposal was presented to AP&P and was approved. Next, it will go to Faculty Senate. Larry submitted the MSE El Ed proposal to DPI on Monday, April 18, 2016.
   c. Melina will be leaving on Thursday, April 21 to go to Milwaukee for a grant presentation and will be touring four of the Montessori school locations. (This is for the “Improve Teacher Quality” grant).
   d. Molly has 10 years of service at UWRF and will be recognized at the awards banquet. (Congrats Molly!)

3. **Action Items:**
   a. Diane Bennett presented STEMteach proposal changes, discussion ensured. Florence motioned to approve, Hilary seconded, all in favor and approved with the exception of one abstention. **Proposal changes approved.**
   b. Mike Martin shared the proposed changes to the General Science for Elementary Education Minor. Discussion ensued. Joel motioned to approve the changes as proposed by Mike, Florence seconded. **Proposal changes approved.**
   c. Melina shared the proposed changes to the Montessori Program. Molly motioned to approve the changes as presented by Melina, Rachelle seconded. **Proposal changes approved.**
   d. Florence shared the updates and answers to questions from faculty in connection with the newly revised retention and promotion criteria (all of the information is available for reference in the faculty handbook). Discussion ensued. Molly motioned to approve the changes to retention and promotion criteria and accept the revised department criteria as presented by Florence. Florence seconded, Rachelle, Melina and Tyler abstained, all others were in favor. The revised TED retention and promotion criteria was approved.

Meeting Adjourned at 4:20pm