

## REQUEST FOR CHANGE IN MASTERS DEGREE PROGRAM

### 1. GENERAL INFORMATION

College:	Education	Department:	STEM Education		
Current Major Name:	STEM Education	Proposed Major Name:			
Current Degree Title:	Master of Science in Education	Proposed Degree Title:			
Formal Option(s):		Proposed Formal Option(s):			
Specialty Fields w/in Formal Option:		Proposed Specialty Fields w/in Formal Options:			
Date of Contact with Associate Provost for Academic Administration <sup>1</sup> :	Fall 2009				
Bulletin (yr & pgs):		CIP Code <sup>1</sup> :	13.1399	Today's Date:	02.22.2011
Accrediting Agency (if applicable):	National Council for Accreditation of Teacher Education and Kentucky Education Professional Standards Board				
Requested Effective Date:	<input checked="" type="checkbox"/> Semester following approval.	OR	<input type="checkbox"/> Specific Date <sup>2</sup> :		
Dept. Contact Person:	Margaret Schroeder	Phone:	257.3073	Email:	m.mohr@uky.edu

### 2. CHANGE(S) IN PROGRAM REQUIREMENTS

		<u>Current</u>	<u>Proposed</u>
1.	Number of transfer credits allowed (Maximum is Graduate School limit of 9 hours or 25% of course work)	9	
2.	Residence requirement (if applicable)		
3.	Language(s) and/or skill(s) required	N/A	
4.	Termination criteria		
5.	Plan A Degree Plan requirements <sup>3</sup> (thesis)		<i>Thesis action research/teacher leadership project required with oral defense of written work</i>
6.	Plan B Degree Plan requirements <sup>3</sup> (non-thesis)	Kentucky Teacher Standards Portfolio	<i>Not an option</i>
7.	Distribution of course levels required (At least one-half must be at 600+ level & two-thirds must be in organized courses.)	one-half 600+ level and two-thirds in organized courses	<i>one-half 600+ level and two-thirds in organized courses</i>
8.	Required courses (if applicable)	6 hours of EDC 732, 733, or EPE/EDP 522; 9 hours of	<i>3 hours of SEM 610; 9 hours of SEM 603, 604, <del>607</del>, 613, EDC 607</i>

<sup>1</sup> Prior to filling out this form, you MUST contact the Associate Provost for Academic Administration (APAA). If you do not know the CIP code, the APAA can provide you with that during the contact.

<sup>2</sup> Program changes are typically made effective for the semester following approval. No changes will be made effective until all approvals are received.

<sup>3</sup> If there is only one plan for the degree, plans involving a thesis (or the equivalent in studio work, etc.) should be discussed under Plan A and those not involving a thesis should be discussed under Plan B.

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		EDC 603, 604, 607, 613, 701, 704, 706, 708, or 770; 12 hours of STEM content courses; 3 hours of EDL courses (Please see attached curriculum contract)	<i>701, 704, 706, 708, or 770; 12 hours of STEM content courses; 6 hours of EDL courses (Please see attached curriculum contract)</i>
9.	Required distribution of courses within program (if applicable)	6 hours in EDC Departmental Core; 9 hours in EDC Stem Education; 12 hours in STEM content area; 3 hours in EDL	<i>12 hours of SEM STEM Education; 12 hours in STEM content area(s); 6 hours in EDL</i>
10.	Final examination requirements	STEM Education Master's Examination	<i>Oral defense of written thesis</i>
11.	Explain whether the proposed changes to the program (as described in sections 1 to 10) involve courses offered by another department/program. <u>Routing Signature Log must include approval by faculty of additional department(s).</u>		
	The proposed changes to this Master's degree program does not change the requirements for content courses outside of the College of Education or the course offerings from the Department of Education Leadership.		
12.	List any other requirements not covered above?		
	N/A		
13.	Please explain the rationale for changes. If the rationale involves accreditation requirements, please include specific references to those requirements.		
	<p>16 KAR 5:010 Section 12 specifies that all Advanced Master's Degree Programs must be redesigned and approved prior to December 31, 2010. The redesigned Master's degree was approved last Spring 2010 at the University. Changes to the requirements of the Master's Degree Programs within the College of Education necessitated a change to the Master of Science in Education - STEM Education Program.</p> <p>The program changes proposed will allow for students of this program to practice 21<sup>st</sup> century skills and concepts that can then be integrated into their classrooms. It will also give them the background skills and knowledge needed to become a STEM Education teacher leader in their schools, districts, and the Commonwealth.</p>		

# REQUEST FOR CHANGE IN MASTERS DEGREE PROGRAM

## Signature Routing Log

**General Information:**

Proposal Name: Master of Science in STEM Education

Proposal Contact Person Name: Margaret Schroeder Phone: 257.3073 Email: m.mohr@uky.edu

**INSTRUCTIONS:**

Identify the groups or individuals reviewing the proposal; note the date of approval; offer a contact person for each entry; and obtain signature of person authorized to report approval.

**Internal College Approvals and Course Cross-listing Approvals:**

Reviewing Group	Date Approved	Contact Person (name/phone/email)	Signature
STEM Education		Jennifer Wilhelm / 257.1291 / jennifer.wilhelm@uky.edu	<i>Jennifer Wilhelm</i>
C+C Comm	3/28/11	Doug Smith 7-1824 / dcsmit12@uky.edu	<i>Douglas Smith</i>
College of ED	4/19/11	Robert Shapiro 7-1995 / rshapiro@uky.edu	<i>Robert Shapiro</i>
EDL	9/20/11	Lars Bjork 7-1248 / lbjork@uky.edu	<i>Lars Bjork</i>
EDC	9/20/11	Paula Fawcett 7-5844 / paula.fawcett@uky.edu	<i>Paula Fawcett</i>

**External-to-College Approvals:**

Council	Date Approved	Signature	Approval of Revision <sup>4</sup>
Undergraduate Council			
Graduate Council			
Health Care Colleges Council			
Senate Council Approval		University Senate Approval	

Comments:

EFE

9/20/11

ALAN DEYOUNG  
ADEY@UKY.EDU  
7-3846

<sup>4</sup> Councils use this space to indicate approval of revisions made subsequent to that council's approval, if deemed necessary by the revising council.



**Department of Science, Technology, Engineering, and Mathematics (STEM) Education  
Curriculum Contract – Master’s Verification**

**Master’s Degree with Rank II Certification – STEM Education**

*STEM PLUS<sup>+</sup> – Producing +eacher Leaders for rUral/Urban Schools*

Please TYPE

<b>Name</b>				
<b>Email</b>				
<b>Address</b>				
	<b>Street</b>		<b>City</b>	<b>State</b> <b>Zip</b>
<b>Phone</b>				<b>Semester of Admission to Master’s Program</b>
	<b>Home</b>	<b>Work</b>	<b>Cell/Other</b>	

**Professional Goals:** Briefly describe the professional growth goals you hope to meet in pursuing the Rank II Certification and STEM Education Master’s Degree. Please attach a copy of your Professional Growth Plan.

**Program Goals:** In helping you develop your own professional goals, the STEM PLUS<sup>+</sup> Master’s degree program will also focus on helping you:

1. Connect theory and practice through reflection, teaching, scholarship, and STEM educational action research.
2. Use student achievement data to design authentic, innovative, project-based learning experiences that consider students of diverse backgrounds and perspectives.
3. Explore uses of appropriate assessments and technological tools to enhance STEM teaching, learning, student achievement, and College and Career Readiness.
4. Develop communication skills through multiple forms of discourse and written, oral, and on-line narratives.
5. Explore and implement innovative and engaging curricula, especially around the Kentucky Core Academic Standards and College and Career Readiness, geared towards increasing student achievement.

**Required STEM Education Core:** SEM 610 required; choose 3 additional

(12 hours)

Course	Title	Term	Grade	Credits
SEM 603	Curriculum and Instruction in STEM Education			3
SEM 604	History of STEM Education			3
EDC 607	Instructional Design I			3
<b>SEM 610</b>	<b><i>Teacher Leadership in STEM Education (required)</i></b>			<b>3</b>
SEM 613	Effective Use of Technology for Modeling-Based Inquiry in STEM Education			3
SEM 670	Advanced Elementary Mathematics Methods			3
SEM 674	Advanced Studies in Teaching Elementary School Science			3
SEM 675	Mathematics Clinic			3
SEM 701	History of Mathematics Education			3
SEM 704	Designing Project-Enhanced Environments in STEM Education			3
SEM 706	Research in STEM Education			3
SEM 708	Engineering in STEM Education			3
SEM 770	Special Topics in STEM Education:			3

**Specialization STEM Coursework:** Choose 12 hours in STEM content area(s) outside the College of Education. See attached list for course suggestions. *(Recommended: 6 hours in your area of expertise and 6 hours outside of your area of expertise).* (12 hours)

Course	Title	Term	Grade	Credits
				3
				3
				3
				3
				3
				3

**Elective Leadership Coursework:** Choose from the following (6 hours)

Course	Title	Term	Grade	Credits
EDC/EPE/EDP 522	Educational Assessment			3
EDC 548	Instructional Technology Leadership			3
EDC 732	Curriculum Design for Learning and Leading			3
EDC 733	Leadership in Curriculum & Instruction: Strategies for Analytic Practice			3
ELS 600	Leadership for Learning-Centered Schools	Fall		3
ELS 601	Building a Professional Learning Community	Fall		1
ELS 602	Leadership Roles in Professional Learning Communities	Fall		1
ELS 603	Leadership for Student Learning	Fall		1
ELS 604	Leadership in Professional Learning Communities	Fall		3
ELS 605	Legal Rights and Responsibilities of Students	Spring		1
ELS 606	Legal Rights and Responsibilities for Teachers	Spring		1
ELS 607	Teacher Responsibilities in School-Based Decision Making	Spring		1
ELS 608	School Law and Governance for Teachers	Spring		3
ELS 609	Technology Leadership	Summer		1
ELS 610	Distributed Leadership in Schools	Summer		1
ELS 611	Current Issues for Education Leaders	Summer		1
ELS 612	Leadership for Technology and Innovation	Summer		3
ELS 613	Leadership in the Public Context of Education	Spring		1
ELS 614	Partnerships for Closing Achievement Gaps	Spring		1
ELS 615	Leadership for Response to Intervention in Inclusive Classrooms	Spring		1
ELS 616	Leadership for School as Inclusive Community	Spring		3
ELS 617	Teacher Leadership for Instructional Teams	Fall		1
ELS 618	Introduction to Leading Action Research for School Renewal	Fall		1
ELS 619	Evidence-Based Decision Making	Fall		1
EDL 661	School Technology Leadership			3
EDL 662	Digital Age Learning and School Technology Leadership			3
EDL 663	Professional Development for School Technology Leadership			3
EDL 664	School Technology Leadership for School Improvement			3
EDL 665	School Technology Leadership for Digital Citizenship			3
<b>Total Credit Hours</b>				

*Minimum 30 credit hours required for graduation and Rank II certification*

**Continuous Assessment**

Checkpoint	Date
<b>Satisfactory Entry Review</b>	
<b>Satisfactory Mid-point Review</b>	
<b>Satisfactory Exit Portfolio/Review</b>	

**Master's Committee:**

Member	Department
, Chair	

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Student Signature

Date

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Advisory Signature

Date