

**ADD, CHANGE OR DELETE UNIT, PROGRAM REQUIREMENTS, OR ACADEMIC POLICIES**

Complete this form consistent with the instructions in Academic Policy 1622.20. Use the form to add, change, or delete a program or unit or to change program policies. Proposed additions and changes must be consistent with Academic Policies 1100.40 and 1621.10 and any other policies which apply.

**SECTION I: Approvals**

Department / Program Chair _____	Date Submitted _____	Graduate Council Chair _____	Date _____
College Dean _____	Date _____	Faculty Senate Chair _____	Date _____
Honors College Dean _____	Date _____	Provost _____	Date _____
Core Curriculum Committee _____	Date _____	Board of Trustees Approval/Notification Date _____	
University Course and Programs Committee _____	Date _____	Arkansas Higher Education Coordinating Board Approval/Notification Date _____	

**SECTION II: Profile Data - Required Information and Name Change Information**

Academic Unit:  Major/Field of Study  Minor  Other Unit Certificate  Policy  
 Level:  Undergraduate  Graduate  Law

Program changes are effective with the next available catalog. See Academic Policy Series 1622.20

Current Name \_\_\_\_\_

College, School, Division EDUC

Department Code CIED

Current Code (6 digit Alpha) \_\_\_\_\_

Proposed Code (6 digit Alpha) STEMGC  
 Prior approval from the Office of the Registrar is required.

Interdisciplinary Program

CIP Code 13.1202  
 Prior assignment from Office of Institutional Research is required.

Proposed Name Graduate Certificate in Science, Technology, Engineering and Mathematics (STEM) Education

When a program name is changed, enrollment of current students reflects the new name.

**SECTION III: Add a New Program/Unit**

For new program proposals, complete Sections II and VII and use as a cover sheet for a full program proposal as described in 'Criteria and Procedures for Preparing Proposals for New Programs in Arkansas.' ADHE

<http://www.arkansashighered.com/pdfs/BookAppNewProgramCriteriaandProceduresRevised2005.pdf>.

Program proposal uses courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: \_\_\_\_\_

**SECTION IV: Eliminate an Existing Program/Unit**

Code/Name \_\_\_\_\_ Effective Catalog Year \_\_\_\_\_

No new students admitted to program after Term: \_\_\_\_ Year: \_\_\_\_\_

Allow students in program to complete under this program until Term: \_\_\_\_ Year: \_\_\_\_\_

**SECTION V: Proposed Changes to an Existing Program or Program Policies**

**Insert here a statement of the exact changes to be made: This change would add a Graduate Certificate in Science, Technology, Engineering and Mathematics (STEM) Education as an option for students enrolled in the CHED MAT Program.**

Check if either of these boxes apply and provide the necessary signature:

- Program change proposal adds courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: \_\_\_\_\_
- Program change proposal deletes courses offered by another academic college, and that college dean's office has been notified. The signature of the dean of that academic college is required here: \_\_\_\_\_

Check all the boxes that apply and complete the required sections of the form:

- Change of Name and Code (Complete only sections I, II, V and VII.)
- Change Course Requirements: (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Delivery Site/Method (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change Total Hours (Complete all sections of the form except "Proposed Name" in II, section III, and section IV.)
- Change in Program Policies

### **SECTION VI: Justification**

*Justify this change and state its likely effect on any other degree program (including those outside the school or college). Identify any program or program components (other than courses) to be eliminated if this program is implemented. (Program and course change forms must also be submitted for such related changes.)*

### **SECTION VII: Catalog Text and Format**

*In the box below, insert the current catalog text which is to be changed, with changes highlighted with the color yellow. Include all proposed changes identified in Section V. Only changes explicitly stated in Section V will be considered for approval by the University Course and Programs Committee, the Graduate Council and the Faculty Senate. If you are proposing a new program, give proposed text with all of the elements listed below. If you are proposing modified text, include these elements as appropriate.*

**Include the following elements, in order, in the catalog text for proposed undergraduate program(s) or program changes:**

- State complete major/program name
- Briefly define or describe the major/program or discipline.
- Identify typical career goals or paths for graduates. (Optional)
- State admission requirements (if any) for entry or entry into upper/advanced level of major/program.
- Identify location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements.
- State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements.
- State any other requirements (required GPA, internship, exit exam, project, thesis, etc.).
- Identify name and requirements for each concentration (if any).
- Specify whether a minor or other program component is allowed or required and provide details.
- State eight-semester plan requirements

**For minors, state requirements in terms of hours, required courses, electives, etc.**

**For graduate program/units, include elements (as needed) parallel to those listed for undergraduate programs above.**

**For Law School program/units, prepare text consistent with current catalog style.**

**For centers, prepare text consistent with current catalog style.**

**State complete program name:** Graduate Certificate in Science, Technology, Engineering and Mathematics (STEM) Education

**Briefly define or describe the major goals of the program:** The major goal of this certificate program is to prepare a cadre of teachers who can address the critical need for quality STEM education in the elementary grades. Presently, students have the choice

of earning a specialization in ESL or Special Education. This proposed change would offer a third option in STEM education.

**Identify typical career goals or paths for graduates:** In addition to obtaining initial licensure to teach in P-4 classrooms, students earning a STEM Certificate would be well positioned to serve as (1) highly qualified teachers of STEM content areas in their individual classrooms; (2) leaders in their schools in the area of STEM content and pedagogy; (3) STEM curriculum coordinators in their individual buildings and/or school districts; and (4) advocates for STEM education throughout Arkansas.

**Admission requirements:** These requirements would be that same as the existing MAT (minimum 2.7 Undergraduate GPA; passing of Praxis I; and admission to the Early Childhood program)

**Location in catalog of university, college/school, and department/program requirements which the student must meet in addition to hours in the major, but do not restate these requirements:** The MAT consists

**State course requirements in the major and any allied areas, giving number of hours and specific courses; specify electives or elective areas and give numbers of hours and courses in elective pools or categories; identify any other course requirements: State any other requirements (required GPA, internship, exit exam, project, thesis, etc.):**

Required courses include: TEED 4033 Introduction to STEM Education  
TEED 5023 Creativity and Innovation in STEM Education  
CIED 5032 Curriculum Design  
CIED 5203 Problem-based Math for STEM Education  
CIED 5213 Problem-based Science in the Elementary Grades

In addition to the required courses, students will maintain a minimum 3.0 GPA; pass Praxis II; complete a year-long internship placement in a local school; and complete an action-research project)

**Identify name and requirements for each concentration (if any):** None

**Specify whether a minor or other program component is allowed or required and provide details:** None

**State eight-semester plan requirements:** This is a change to the 5-year program leading to an M.A.T.; therefore I have included the entire 5-year plan. The STEM Certificate would be earned during the Senior and M.A.T. years.

## **UNIVERSITY OF ARKANSAS**

### **B.S.E. Program in Childhood Education** **Leading to M.A.T.**

#### CURRICULUM OVERVIEW

- The curriculum consists of a minimum of **124** hours. Classes are blocked to show a recommended sequence.
- Following completion of the prescribed, prerequisite courses (Freshman and Sophomore years), obtaining a minimum of a 2.7 UofA GPA, passing the PRAXIS I exam, and admission to the CHED program at the University of Arkansas, students are eligible to register for the junior and senior courses of a Bachelor of Science degree in childhood education. \*\* Go to [www.ets.org](http://www.ets.org) for information on the Praxis I exam.
- A cohort of junior-level students begins the fall of each academic year.
- PRAXIS II, Early Childhood: Content Knowledge, must be passed prior to April 15 of the senior year. PRAXIS II, Principles of Learning and Teaching: Early Childhood, is taken during the fall semester of the M.A.T. year.

#### **FRESHMAN YEAR**

<b>FALL (16 Credit Hrs.)</b>	<b>SPRING (15 Credit Hrs.)</b>
ENGL 1013      English Composition I	ENGL 1023      English Composition II
MATH 1203      College Algebra (or higher)	MATH 2213      Math Structures I
BIOL 1543      Principles of Biology	CIED 1002      Introduction to Education
BIOL 1541L      Lab	CIED 1001      Practicum
HIST 2003 or 2013      U.S. History	PSYC 2003      General Psychology
Fine Arts Core      3 hours	COMM 1313      Fundamentals of Communication

#### **SOPHOMORE YEAR**

<b>FALL (16 Credit Hrs.)</b>		<b>SPRING (15 Credit Hrs.)</b>	
PHYS	PHYS 1034 for Elem. Teachers <b>OR</b> any 4 hour Physical Sci. and Lab	HIST 3383	Arkansas and the Southwest or any 3 hour Arkansas History
MATH 2223	Math Structures II	HESC 2433	Child Development
PLSC 2003	American Government	CIED 1003	Intro to Tech in Education <b>OR</b> any 3 hr. computer course
Humanities Core	3 hours	GEOG	Any 3 hour Geography course
Elective	3 hours	Elective	3 hours

### **JUNIOR YEAR**

<b>FALL (16 Credit Hrs.)</b>		<b>SPRING (16 Credit Hrs.)</b>	
GEOL 1113	General Geology	CIED 3003	Early Childhood Education <b>OR</b> HESC 3402 Child Guidance
GEOL 111L	Geology Lab	CIED 3001	ECE Practicum <b>OR</b> HESC 3401L Child Guidance Lab
CIED 3263	Lang. Develop. for the Educator	CIED 3033	Classroom Learning Theory
ECON 3053	Economics for Elem. Teachers <b>OR</b> any 3 hour Economics	CIED 3023	Survey of Exceptionality
Elective	6 hours	Elective	6 hours

### **SENIOR YEAR**

<b>FALL (15 Credit Hrs.)</b>		<b>SPRING (16 Credit Hrs.)</b>	
CIED 3103	Children's Literature	CIED 4113	Integrated Communication Skills
CIED 3113	Emergent and Developmental Literacy	CIED 3133	Integrated Social Studies
CIED 3123	Math Methods	CIED 3143	Teaching Science
CIED 4153	Classroom Management	CIED 4101	Practicum
CIED 4513	Teaching Children with Mild Disabilities	CIED 4523	Teaching Children with Severe Disabilities
<b>OR</b>		<b>OR</b>	
CIED 4403	Understanding Cultures	CIED 4413	Acquiring a 2nd Language
<b>OR</b>		<b>OR</b>	
TEED 4033	Introduction to STEM Education	TEED 5023	Creativity and Innovation in STEM Education
		Elective	3 hours

### **SUMMER SESSION**

CIED 5013	Measurement/Research/Statistical Concepts for Teachers
CIED 5053	Multicultural Issues
CIED 5783	Family Partnerships

### **MAT YEAR**

<b>FALL (15 Credit Hrs.)</b>		<b>SPRING (15 Credit Hrs.)</b>	
CIED 5022	Classroom Management Concepts	CIED 5003	Childhood Seminar
CIED 508V	Childhood Education Cohort Teaching Internship	CIED 5032	Curriculum Design
CIED 5162	Applied Practicum	CIED 5073	Case Study in Childhood Education
CIED 5173	Literacy Assessment	CIED 508V	Childhood Education Cohort Teaching Internship
CIED 5873	Assessment for Persons with Disabilities	CIED 5343	Applied Classroom Management
<b>OR</b>		<b>OR</b>	

CIED 5953 Second Language Assessment <b>OR</b> CIED 5203 Problem-based Math for STEM Education	CIED 5933 Second Language Methodology <b>OR</b> CIED 5213 Problem-based Science in the Elementary Grades
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**SECTION VIII: Action Recorded by Registrar's Office**

PROGRAM INVENTORY/DARS

PGRM \_\_\_\_\_ SUBJ \_\_\_\_\_ CIP \_\_\_\_\_ CRTS \_\_\_\_\_  
 DGRE \_\_\_\_\_ PGCT \_\_\_\_\_ OFFC&CRTY VALID \_\_\_\_\_

REPORTING CODES

PROG. DEF. \_\_\_\_\_ REQ. DEF. \_\_\_\_\_  
 Initials \_\_\_\_\_ Date \_\_\_\_\_

**Distribution**

Notification to:  
 (1) College (2) Department (3) Admissions (4) Institutional Research (5) Continuing Education (6) Graduate School  
 (7) Treasurer (8) Undergraduate Program Committee

5/12/08