

Date Submitted: 09/13/21 1:35 pm

Viewing: **STEM-M : STEM Education Minor**

Last approved: 05/05/21 11:25 am

Last edit: 09/14/21 11:34 am

Changes proposed by: seb010

Catalog Pages Using
this Program

[STEM Education \(STEM\)](#)

Submitter: User ID: seb010 Phone:
575-3875

Program Status Active

Academic Level Undergraduate

Type of proposal Minor

Select a reason for this modification

Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)

Effective Catalog Year Fall 2022

College/School Code
College of Education and Health Professions (EDUC)

Department Code
Department of Curriculum and Instruction (CIED)

Program Code STEM-M

Degree Minor

CIP Code

In Workflow

1. EDUC Dean Initial
2. Director of Curriculum Review and Program Assessment
3. Registrar Initial
4. Institutional Research
5. CIED Chair
6. EDUC Curriculum Committee
7. ARSC Dean
8. EDUC Dean
9. Global Campus
10. Provost Review
11. University Course and Program Committee
12. Faculty Senate
13. Provost Final
14. Registrar Final
15. Catalog Editor Final

Approval Path

1. 09/14/21 11:08 am
Matthew Ganio (msganio):
Approved for EDUC Dean Initial
2. 09/14/21 11:34 am
Alice Griffin (agriffin): Approved for Director of Curriculum Review and Program Assessment

3. 09/15/21 9:18 am
Lisa Kulczak
(lkulcza): Approved
for Registrar Initial
4. 09/15/21 11:59 am
Doug Miles
(dmiles): Approved
for Institutional
Research
5. 09/15/21 12:29 pm
Ed Bengtson
(egbengts):
Approved for CIED
Chair
6. 10/06/21 2:24 pm
Matthew Ganio
(msganio):
Approved for EDUC
Curriculum
Committee
7. 10/07/21 9:21 am
Jeannie Hulen
(jhulen): Approved
for ARSC Dean
8. 10/07/21 1:13 pm
Matthew Ganio
(msganio):
Approved for EDUC
Dean
9. 10/07/21 1:17 pm
Suzanne Kenner
(skenner): Approved
for Global Campus
10. 10/07/21 3:03 pm
Ketevan
Mamiseishvili
(kmamisei):
Approved for
Provost Review

History

1. May 5, 2021 by seb010

13.1205 - Secondary Education and Teaching.

Program Title

STEM Education Minor

Program Delivery**Method**

On Campus

Is this program interdisciplinary?

Yes

College(s)/School(s)

College/School Name

Fulbright College of Arts and Sciences (ARSC)

Does this proposal impact any courses from another College/School?

Yes

College(s)/School(s)

College/School Name

Fulbright College of Arts and Sciences (ARSC)

What are the total hours needed to complete the program?

15

Program Requirements and Description

Requirements

A minimum GPA of 3.0 required to earn the minor. Of the 15 credit hours, a minimum of 9 credit hours must be STEM, CIED, SEED, or CATE courses.

The 15-credit-hour minor in STEM Education is not a teacher licensure program. However, these courses can be applied to the undergraduate teacher licensure program that prepares students for secondary licensure in the following subjects: Mathematics, Biology, Chemistry, Physics, or Computer Science. For questions about teacher licensure, please visit the [Office of Teacher Education](#). Students may also consider the one-year Master of Arts in Teaching program as a path to teacher licensure.

Course Requirements

<u>STEM 2003</u>	The Art of STEM Communication	3
or <u>ARSC 1201</u> & <u>ARSC 1212</u>	Introduction to Teaching STEM Subjects and Field Experience in Teaching STEM Subjects	
<u>STEM 2103</u>	Knowing and Learning in Science and Mathematics	3
<u>STEM 3203</u>	Classroom Interactions	3
Electives chosen from:		6
<u>ARSC 1201</u>	Introduction to Teaching STEM Subjects 1	
<u>ARSC 1212</u>	Field Experience in Teaching STEM Subjects 1	
<u>STEM 2003</u>	The Art of STEM Communication 1	
<u>STEM 4333</u>	History and Philosophy of Science for Science Teachers	
<u>BIOL 3273</u>	Inquiry and Modeling in Science Education	
or <u>CHEM 3273</u>	Inquiry and Modeling in Science Education	
or <u>PHYS 3273</u>	Inquiry and Modeling in Science Education	
<u>MATH 2903</u>	Functions, Foundations and Models	
<u>CATE 4073</u>	Introduction to Teaching Programming in the Secondary Schools	
<u>SEED 4003</u>	Teaching Secondary Science	
<u>SEED 4303</u>	Teaching Secondary Mathematics I	
<u>SEED 4313</u>	Teaching Secondary Mathematics II	
<u>CIED 4023</u>	Teaching in Inclusive Secondary Settings	

Total Hours 15

1 Can be used only once for the minor.

8-Semester Plan

Are Similar Programs available in the area?

No

Estimated Student Demand for Program 20-25

Scheduled Program NA

Review Date

Program Goals and Objectives

Program Goals and Objectives

To attract STEM majors to delve into the topic of STEM education and develop communication skills that will be beneficial to any career, even if they are not interested in becoming teachers (note: this minor replaces the UAteach minor in which the teaching internship was required. The internship will no longer be part of the minor.)

Program Goals and Objectives

To increase the pool of potential teachers of STEM subjects to help address the critical shortage of teachers in math, science, and computer science at the secondary level.

To increase enrollment in the STEM education (former UAteach) courses to keep them viable and offered on a regular basis to ensure that the University of Arkansas will be able to continue to prepare math, science, and computer science teachers at the secondary level.

Learning Outcomes

Learning Outcomes

Students who earn this minor in STEM Education will improve their ability to communicate STEM topics such as math and science to others.

Students who earn this minor in STEM Education will have a deeper understanding of how people learn math, science, and computer science.

Students who earn this minor in STEM Education will be able to teach STEM topics in a way that engages a class or other audience, using research-based strategies.

Students who earn this minor in STEM Education will have an opportunity to explore their interests by choosing two elective courses relating to STEM education.

Students who earn this minor in STEM Education will earn 15 credit hours in STEM education courses that can be applied to the teacher licensure program for Math, Biology, Chemistry, Physics, or Computer Science if they decide to become teachers.

Description and justification of the request

Description of specific change	Justification for this change
We added ARSC 1201, ARSC 1212, and STEM 2003 as additional options for electives.	Allows increased flexibility toward earning the minor.

Upload attachments

Reviewer Comments

Alice Griffin (agriffin) (09/14/21 11:34 am): ATTENTION: Since this minor program change uses courses from another college, it will require campus approval.