

NSM 195B: FIELD EXPERIENCE IN SECONDARY STEM CLASSROOMS

In Workflow

1. NSM College Committee Chair (mikkel.jensen@csus.edu)
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Approval Path

1. Wed, 03 Nov 2021 22:42:45 GMT
Mikkel Jensen (mikkel.jensen): Rollback to Initiator
2. Wed, 17 Nov 2021 23:46:42 GMT
Mikkel Jensen (mikkel.jensen): Approved for NSM College Committee Chair
3. Wed, 17 Nov 2021 23:47:05 GMT
Shannon Datwyler (datwyler): Approved for NSM Dean

New Course Proposal

Date Submitted: Sat, 06 Nov 2021 23:47:14 GMT

Viewing: NSM 195B : Field Experience in Secondary STEM Classrooms

Last edit: Sat, 06 Nov 2021 23:47:13 GMT

Changes proposed by: Vera Margoniner (210759745)

Contact(s):

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Catalog Title:

Field Experience in Secondary STEM Classrooms

Class Schedule Title:

Experience in STEM Classrooms

Academic Group: (College)

NSM - Natural Sciences & Mathematics

Academic Organization: (Department)

Natural Sciences and Mathematics

Will this course be offered through the College of Continuing Education (CCE)?

No

Catalog Year Effective:

Spring 2022 (2022/2023 Catalog)

Subject Area: (prefix)

NSM - Natural Sciences and Mathematics

Catalog Number: (course number)

195B

Course ID: (For administrative use only.)

TBD

Units:

1

Is the primary purpose of this change to update the term typically offered or the enforcement of prerequisites at registration?

No

In what term(s) will this course typically be offered?

Fall, Spring

Does this course require a room for its final exam?

No, final exam does not require a room

Does this course replace an existing experimental course?

No

This course complies with the credit hour policy:

Yes

Justification for course proposal:

The Teaching Credential program at Sac State requires that applicants document at least 45 hours of early field experiences with K-12 students in public schools. NSM 195B will allow students to conduct guided observations of high quality Science, Technology, Engineering, and Mathematics (STEM) instruction in secondary schools. Coursework is divided into two components: field experience in either middle or high-school STEM classroom; and weekly meetings to reflect on field experiences.

Course Description: (Not to exceed 80 words and language should conform to catalog copy.)

Field Experience in Secondary STEM Classrooms. Orientation to high quality Science, Technology, Engineering, and Mathematics (STEM) instruction in secondary schools. Coursework is divided into two components: field experience in either middle or high-school STEM classroom; and weekly meetings to reflect on field experiences.

Are one or more field trips required with this course?

No

Fee Course?

No

Is this course designated as Service Learning?

No

Does this course require safety training?

No

Does this course require personal protective equipment (PPE)?

No

Does this course have prerequisites?

Yes

Prerequisite:

NSM 195A. NSM 195A may be taken concurrently.

Prerequisites Enforced at Registration?

No

Does this course have corequisites?

No

Graded:

Credit / No Credit

Approval required for enrollment?

Instructor Approval

Course Component(s) and Classification(s):

Activity

Activity Classification

CS#16 - Science Laboratory (K-factor=2 WTU per unit)

Activity Units

1

Is this a paired course?

No

Is this course crosslisted?

No

Can this course be repeated for credit?

Yes

How many times can the course be taken (not including first time passed)?

3

Total credits allowed (including first time passed)

3

Can the course be taken for credit more than once during the same term?

Yes

Description of the Expected Learning Outcomes: Describe outcomes using the following format: "Students will be able to: 1), 2), etc."

Upon completing this course students will be able to:

- 1) Understand the job of a secondary school STEM teacher and be better prepared to decide if they want to pursue teaching as a career;
- 2) Support secondary STEM students in a real-time classroom, and assist them with problem-solving strategies;
- 3) Describe several types of active learning teaching strategies (i.e. peer instruction, problem-based learning, project-based learning, etc.);
- 4) Use some active learning teaching strategies to engage and support all students in learning;
- 5) Reflect on their effectiveness in engaging diverse learners and developing rapport with diverse students.

Attach a list of the required/recommended course readings and activities:

NSM 195B Syllabus.pdf

Assessment Strategies: A description of the assessment strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers) which will be used by the instructor to determine the extent to which students have achieved the learning outcomes noted above.

Students will meet the objectives listed above through a combination of the following activities in this course:

Observations of students and teacher(s) at a local secondary school (SLOs 1-2, and 4). Instructions on how to conduct observations will be provided by the NSM 195B instructor during the Reflection meetings.

Participation in the weekly debriefs with the secondary school teacher (SLOs 1 & 3), . Topics for discussion will be suggested by the NSM 195B instructor.

Writing reflections about the classroom observations and the debriefs with the secondary school teacher (SLOs 1, 3, & 5). These reflections will be guided by prompts provided by the NSM 195B instructor.

Participation in the weekly reflection meetings (SLOs 1, 3, & 5).

This is a credit / no credit class. To receive credit students must:

- Observe a minimum of 18 hours (roughly 22 50-minute class periods) of secondary STEM instruction; and
- Complete all three Reflections listed above and receive a passing grade on each one; and
- Have no more than two absences from the campus classes. Two tardies will count as one absence.

For whom is this course being developed?

Majors of other Depts

Is this course required in a degree program (major, minor, graduate degree, certificate?)

No

Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?

No

Will there be any departments affected by this proposed course?

Yes

Indicate which department(s) will be affected by the proposed course:

Department(s)
All College

I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.

I/we agree

University Learning Goals

Undergraduate Learning Goals:

- Competence in the disciplines
- Knowledge of human cultures and the physical and natural world
- Integrative learning
- Personal and social responsibility
- Intellectual and practical skills

Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?

No

GE Course and GE Goal(s)

Is this a General Education (GE) course or is it being considered for GE?

No

Reviewer Comments:

Mikkel Jensen (mikkel.jensen) (Wed, 03 Nov 2021 22:42:45 GMT): Rollback: - Link assessment strategies and learning objectives. - Is NSM 195A strictly a co-requisite of NSM 195B? Or can 195A also be a pre-requisite? If it's listed as a co-requisite, they can only be taken together, and not sequentially. If the intention is that students can take them either sequentially or together, 195A should be listed as a pre-requisite to 195B, with a note that "NSM 195A may be taken concurrently". Double-check and update as needed.

Key: 14547