

Course Change Request

Date Submitted: 02/21/24 3:10 pm

Viewing: **COS 401 : RS: Discipline-Based Research in STEM ~~Discipline-Based Education Research~~**

Last approved: 11/17/21 5:25 am

Last edit: 02/21/24 3:10 pm

Changes proposed by: jbazaz

Catalog Pages referencing this course

- [College of Science](#)
- [College of Science \(COS\)](#)

Select modification type:

- ~~Specialized Course Designation~~
- Substantial

Are you completing this form on someone else's behalf?

Yes No

Requestor:

Name	Extension	Email
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Effective Term: Spring 2024

Subject Code: COS - College of Science

Course Number: 401

Bundled Courses:

In Workflow

1. SC Curriculum Committee
2. SC Curriculum Committee
3. SC Assistant Dean
4. Assoc Provost-Undergraduate
5. Registrar-Courses
6. Banner

History

1. Aug 25, 2017 by pchampan
2. Feb 12, 2019 by Gregory Craft (gcraft)
3. Mar 20, 2020 by Tory Sarro (vsarro)
4. Nov 17, 2021 by Tory Sarro (vsarro)

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: RS: Discipline-Based Research in STEM ~~Discipline-Based Education Research~~

Banner Title: RS: Discipl Based ~~Educ~~ Rsrch
STEM

Will section titles vary by semester? No

Credits: 1-9 ~~2-3~~

Schedule Type: Research ~~Independent Study~~

Hours of Other Contact Hours per week: 1-9 ~~2-3~~

Repeatable: May be only taken once for credit, limited to 3 attempts (N3) **Max Allowable Credits:** 9

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only):

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(Course/Test Code	Min Grade/Score	Academic Level)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

Field(s) of Study:**Class(es):****Level(s):****Degree(s):****School(s):****Catalog****Description:**

Students will conduct an original Discipline-Based STEM Education Research (DBER) project with their faculty ~~mentor and STEM Accelerator faculty~~ mentor. Project proposals are developed jointly by the student and faculty mentor and approved by the course instructor. COS 401 research projects may include lab-based and field-based studies, discipline-based educational research (DBER), computational and simulation studies, quantitative or qualitative data analyses, or systematic reviews and meta-analyses. Concurrent instruction will supplement research activities to guide students through the research process, the development of summative scholarly research products, and the effective dissemination of results. Each student will develop a scholarly research product that represents their time and effort, and will present their research at a poster session at the conclusion of the course.

Justification:

What: Updating the course's title, credits, and description.

Why: We've found the current course's organization to be limiting and we'd like to open up the course for more science students to participate.

Does this course cover material which crosses into another department? No

Learning Outcomes:

Will this course be scheduled as a cross-level cross listed section?

Attach Syllabus

[COS401Syllabus.pdf](#)

Additional Attachments**Specialized Course****Categories:**

Mason Impact

Application for Mason Impact

Select the requested Mason**Impact designation:**

MI + Research/Scholarship Intensive (RS)

MI + Research/Scholarship Intensive (RS)

I. Course must meet the following learning outcomes:

Students will understand how knowledge is generated and communicated, and how it can be used to address questions or problems in disciplines and in society.

Students will be able to identify and negotiate multiple perspectives, work collaboratively within and across multiple social and environmental contexts, and engage ethically with their subject and with others.

Students will use inquiry skills to articulate a question; engage in an inquiry process; and situate the concepts, practices, or results within a broader context.

Students will design and carry out an individual or collaborative project that explores an original question, seeks a creative solution to a problem, applies knowledge to a professional challenge, or offers a unique perspective.

Students engage deeply in this original work.

Students will communicate knowledge from their project through presentation, publication, or performance to an audience beyond the classroom.

II.

I affirm that I have attached the following using the syllabus and attachment buttons provided above: (see “?” for help with submission)

III.

Syllabus Containing:

Description of how your course connects with the Mason Impact.

Mason Impact Learning Objectives. Feel free to use our language or write your own. Please make the pertinent objectives bold for ease of review.

IV.

Narrative Statement Containing:

(A) What is the rationale for designating this course as Entrepreneurship?

(B) Explain how this course meets the course criteria?

(C) How does your course fit into the educational career of an average student enrolled in the course?

(D) How will student work meet the project criteria?

(E) How does student learning progress through the course to aid students in the development of the skills needed to complete their project?

(F) Scaffold Map

V.

Letter of Support from chair or dean

Select any additional SaS learning outcomes which the course meets:

Describe how the course meets the required student learning outcomes and the selected methods outcome(s):

How will the course be supported by the appropriate subject area librarian?

Attach Curriculum Map [The designation for the course was previously approved.pdf](#)

Please affirm the following:

List Responsible Faculty Members:

The department has or will have an undergraduate research student learning outcome and will use the data for this course in Academic Program Review.

Additional Comments:

~~Fixing the MI/MCOR/UWIM/GL sync issue.~~

Reviewer Comments

Key: 2949