Missouri State.

Curricular Action Workflow

designed by
Computer Services

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

- Major (Non-Comprehensive/Graduate Program)

- Comprehensive Major

- Option

- Minor

- Certificate

- Certification

- Academic Rules

- Other

Title of Program Affected:

Mathematics-Accelerated-MS

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

The Accelerated Master's Program option in Mathematics provides an opportunity for outstanding undergraduate students to begin their graduate course work during their senior year. To be eligible to apply for admission to this program, the student must have completed at least three of the courses MTH 503, MTH 532, MTH 533 and MTH 540; have a GPA of 3.5 or higher in all mathematics courses numbered MTH 261 or higher. An eligible student may apply for admission during the second semester of the junior year.

If accepted into the accelerated program, up to a maximum of 6 hours of 600/700 level mathematics courses taken after admission into the program may be given credit for both undergraduate and graduate programs. The courses MTH 603, MTH 631, MTH 633, and MTH 640 will not be given credit in the graduate program.

A student is fully admitted to the Graduate College upon completion of the requirements for the baccalaureate degree. All requirements for the master's program should be met for graduation from the master's program.

Before enrolling in a course to be counted as both undergraduate and graduate credit and to count the course toward the masters degree, an undergraduate student must be accepted into the accelerated program and receive prior approval from the graduate program advisor, department head of the undergraduate program, and the dean of the Graduate college. Acceptance into the program and all approvals must be completed prior to the end of the Change of Schedule Period for the course(s). See the Graduate College for further information.

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

The Accelerated Master's Program option in Mathematics provides an opportunity for outstanding undergraduate students to begin their graduate course work during their senior year. To be eligible to apply for admission to this program, the student must have completed at least three of the courses **MTH 333,** MTH 503, MTH 532, ~~MTH 533~~ and MTH 540; have a GPA of 3.5 or higher in all mathematics courses numbered MTH 261 or higher. An eligible student may apply for admission during the second semester of the junior year. If accepted into the accelerated program, up to a maximum of **6 9** hours of 600/700 level mathematics courses taken after admission into the program may be given credit for both undergraduate and graduate programs. The courses MTH 603, MTH 631, ~~MTH 633~~, and MTH 640 will not be given credit in the graduate program. A student is fully admitted to the Graduate College upon completion of the requirements for the baccalaureate degree. All requirements for the master's program should be met for graduation from the master's program. Before enrolling in a course to be counted as both undergraduate and graduate credit and to count the course toward the masters degree, an undergraduate student must be accepted into the accelerated program and receive prior approval from the graduate program advisor, department head of the undergraduate program, and the dean of the Graduate college. Acceptance into the program and all approvals must be completed prior to the end of the Change of Schedule Period for the course(s). See the Graduate College for further information.

Not Attached

Total Hours: 32

What is changing? Check all boxes that apply:

Title change	From option to program (major)	Change in number of hours that will given for credit in both undergraduate and graduate program from 6 to 9.
Course changes of under 18 hours	From program (major) to option	
Course changes of 18 hours or more		Other

Reason for Proposed Change:

This is a reasonable change in line with other accelerated programs on campus and will benefit our students with faster pathways to graduation. Also, the program prerequisite course MTH 533 has been replaced by it's new version MTH 333.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

12/02/2015

Current Status:

Grad Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)
01/25/2016 - Reviewed by Dean (Tamera Jahnke)

Review Comments:

No comments have been added to this proposal.

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Missouri State.

Curricular Action Workflow *designed by* Computer Services

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

- Major (Non-Comprehensive/Graduate Program)

- Comprehensive Major

- Option

- Minor

- Certificate

- Certification

- Academic Rules

- Other

Title of Program Affected:

Mathematics-Accelerated-MS

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

The Accelerated Master's Program option in Mathematics provides an opportunity for outstanding undergraduate students to begin their graduate course work during their senior year. To be eligible to apply for admission to this program, the student must have completed at least three of the courses MTH 503, MTH 532, MTH 533 and MTH 540; have a GPA of 3.5 or higher in all mathematics courses numbered MTH 261 or higher. An eligible student may apply for admission during the second semester of the junior year. If accepted into the accelerated program, up to a maximum of 9 hours of 600/700 level mathematics courses taken after admission into the program may be given credit for both undergraduate and graduate programs. The courses MTH 603, MTH 631, MTH 633, and MTH 640 will not be given credit in the graduate program. A student is fully admitted to the Graduate College upon completion of the requirements for the baccalaureate degree. All requirements for the master's program should be met for graduation from the master's program. Before enrolling in a course to be counted as both undergraduate and graduate credit and to count the course toward the masters degree, an undergraduate student must be accepted into the accelerated program and receive prior approval from the graduate program advisor, department head of the undergraduate program, and the dean of the Graduate college. Acceptance into the program and all approvals must be completed prior to the end of the Change of Schedule Period for the course(s). See the Graduate College for further Information.

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new Information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

The Accelerated Master's Program option in Mathematics provides an opportunity for outstanding undergraduate students to begin their graduate course work during their senior year. To be eligible to apply for admission to this program, the student must have completed at least three of the courses MTH 333, MTH 503, MTH 532, and MTH 540; have a GPA of 3.5 or higher in all mathematics courses numbered MTH 261 or higher. An eligible student may apply for admission during the second semester of the junior year. If accepted into the accelerated program, up to a maximum of 9 hours of 600/700 level mathematics courses taken after admission into the program may be given credit for both undergraduate and graduate programs. The courses MTH 603, MTH 631, and MTH 640 will not be given credit in the graduate program. A student is fully admitted to the Graduate College upon completion of the requirements for the baccalaureate degree. All requirements for the master's program should be met for graduation from the master's program. Before enrolling in a course to be counted as both undergraduate and graduate credit and to count the course toward the masters degree, an undergraduate student must be accepted into the accelerated program and receive prior approval from the graduate program advisor, department head of the undergraduate program, and the dean of the Graduate college. Acceptance into the program and all approvals must be completed prior to the end of the Change of Schedule Period for the course(s). See the Graduate College for further Information.

Not Attached

Total Hours: 32

What is changing? Check all boxes that apply:

- Title change
- ✓ Course changes of under 18 hours
- Course changes of 18 hours or more

- From option to program (major)
- From program (major) to option

- Other

Reason for Proposed Change:

Minor change in prerequisites for the program. We have changed MTH 533 Linear Algebra I to be MTH 333 Linear Algebra to better reflect the needs of students and hence need this small change in our accelerated program requirements/prerequistes.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

11/18/2015

Current Status:

Grad Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)
01/25/2016 - Reviewed by Dean (Tamera Jahnke)

Review Comments:

No comments have been added to this proposal.

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_1a/1b & 11_

From: Bray, William O
Sent: Monday, January 25, 2016 4:44 PM
To: Szepatowski, David
Subject: Re: Curricular Action Workflow Notification (Math-Accelerated-MS)

This is a program change for the accelerated masters. In the past we would allow students in the acc. MS degree to double count 6 credit hours for both their undergrad and graduate programs. The first curricula proposal change this from 6 to 9. Since then, we have decided to change our Linear Algebra class MTH 533 to a 300 level class, MTH 333, with corresponding prerequisite change. Completion of MTH 533 was part of the requirements for the acc. MS program, so the second proposal changes this requirement to MTH 333.

I hope that made sense. If not, let me know.

bill

William Bray
Professor & Dept Head
Department of Mathematics
Missouri State University
http://people.missouristate.edu/wbray

On Jan 25, 2016, at 4:30 PM, Szepatowski, David <DSzepatowski@MissouriState.edu> wrote:

Ok, but what does the first course change ask for? I'm still learning this, so I need to know what to look for when reviewing the proposals.

From: Bray, William O
Sent: Monday, January 25, 2016 4:27 PM
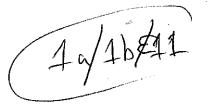**To:** Szepatowski, David <DSzepatowski@MissouriState.edu>
Subject: Re: Curricular Action Workflow Notification (Math-Accelerated-MS)

David,

I just looked again. The first one I believe has made it through the system and has been approved. The new one introduces the (small, but needed) course change in prerequisites for the program. So I think I will just leave this be.

bill

William Bray
Professor & Dept Head
Department of Mathematics

1

1 a/1 b/41

On Jan 25, 2016, at 2:35 PM, Szepatowski, David
<DSzepatowski@MissouriState.edu> wrote:

Bill – It appears that you as the originator have to go in to withdraw it. It looks like
Tammy has reviewed it, so I don't know if that will affect anything, so just let me know.

Thanks,
David

From: Faculty Senate
Sent: Monday, January 25, 2016 2:33 PM
To: Szepatowski, David <DSzepatowski@MissouriState.edu>
Cc: Jahnke, Tamera S <TameraJahnke@MissouriState.edu>
Subject: RE: Curricular Action Workflow Notification (Math-Accelerated-MS)

The originator can go in at any time and withdraw it.

Sandy Johnson
Faculty Senate Office

From: Szepatowski, David
Sent: Monday, January 25, 2016 2:30 PM
To: Faculty Senate <FacultySenate@MissouriState.edu>
Cc: Jahnke, Tamera S <TameraJahnke@MissouriState.edu>
Subject: Curricular Action Workflow Notification (Math-Accelerated-MS)

Good afternoon,

This course change was inadvertently submitted twice on January 22. Is there a way to
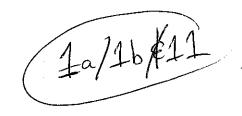delete/remove/reject the first proposal?

Thanks,

David Szepatowski

Administrative Assistant II

College of Natural and Applied Sciences

Missouri State University

901 S. National Ave.

Springfield, MO 65897

phone 417-836-5031

dszepatowski@missouristate.edu | www.missouristate.edu

<image001.gif>

David,

Indeed I submitted twice. I think I forgot to have the first one rejected. We are also changing a course in the program prerequisites. Can we get the first one pulled?

William Bray
Professor & Dept Head
Department of Mathematics
Missouri State University
http://people.missouristate.edu/wbray

On Jan 25, 2016, at 11:09 AM, Szepatowski, David <DSzepatowski@MissouriState.edu> wrote:
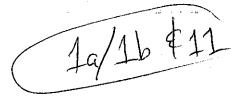
Good morning, Bill,

If I'm reading this correctly, it appears that this was submitted twice in the Curricular Proposals. Is that correct?

Thanks,

David Szepatowski

Administrative Assistant II

College of Natural and Applied Sciences

Missouri State University

901 S. National Ave.

Springfield, MO 65897

3

phone 417-836-5031

dszepatowski@missouristate.edu | www.missouristate.edu

1a/1b $11

<image001.gif>

A change program proposal for **Mathematics-Accelerated-MS** was submitted on 01/22/2016 by William Bray (Department Head) and is being processed through the Curricular Action Workflow.
No action is required on your part at the moment but the original submission may be viewed here.
Faculty Senate
FacultySenate@MissouriState.edu
Faculty Senate Website

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Missouri State.

Curricular Action Workflow

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

- Major (Non-Comprehensive/Graduate Program)

- Comprehensive Major

- Option

- Minor

- Certificate

- Certification

- Academic Rules

- Other

Title of Program Affected:

Mathematics-BSED

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

②

Mathematics

Bachelor of Science in Education (Certifiable grades 9-12)

A. General Education Requirements - see General Education Program and Requirements section of catalog

B. Major Requirements

1. MTH261(5),280(5),302(3),315(3),345(3),460(3),497(1),532(3),533(3),575(3)

2. Select two courses from: MTH 503(3), 536(3), 540(3), 567(3)

3. Courses required from related areas: CSC 121(3) or 125(4) or 130(3); PHY 123(4) or 203(5)

4. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 493(5-6) and 494(5-6).

C. Professional Education Requirements. Note: A grade of "C" or better in each course is required for state certification.

1. MTH 409(3), 410(3), 493(5-6), 494(5-6)

2. Professional Education Required Core and Competencies - see Teacher Certification, Teacher Education Program and Secondary Education Requirements section of catalog

D. This program also requires compliance with the Teacher Education Program requirements for eligibility to enroll in Professional Education courses; admission to and continuance in the Teacher Education Program; approval for supervised teaching; and recommendation for certification; as well as the requirements for Secondary Education. Refer to the Teacher Education Program section of the catalog for requirements.

E. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

F. In order to meet Missouri state teacher certification requirements, candidates for the Bachelor of Science in Education degree are required to meet the following grade point average requirements: at least a 2.75 GPA on all course work attempted at all colleges attended; at least a 3.00 GPA in the certificate subject area (major field of study) which includes all courses listed under B; at least a 3.00 GPA in any additional certificate subject area; at least a 3.00 GPA in the professional education courses which includes all courses listed under C; and no grade lower than a "C" in all professional education courses. All GPA requirements include both Missouri State and transfer grades.

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

⟵ ⟶   B *I* S

Mathematics
Bachelor of Science in Education (Certifiable grades 9-12)
General Education Requirements - see General Education Program and Requirements section of catalog
Major Requirements
1. MTH261(5),280(5),302(3),315(3),**333(3)**,345(3),460(3),497(1),532(3),~~533(3)~~,575(3)
2. Select two courses from: MTH 503(3), 536(3), 540(3), 567(3)
3. Courses required from related areas: CSC 121(3) or 125(4) or 130(3); PHY 123(4) or 203(5)
4. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 493(5-6) and 494(5-6).
Professional Education Requirements. Note: A grade of "C" or better in each course is required for state certification.
MTH 409(3), 410(3), 493(5-6), 494(5-6)
Professional Education Required Core and Competencies - see Teacher Certification, Teacher Education Program and Secondary Education Requirements section of catalog
This program also requires compliance with the Teacher Education Program requirements for eligibility to enroll in Professional Education courses; admission to and continuance in the Teacher Education Program; approval for supervised teaching; and recommendation for certification; as well as the requirements for Secondary Education. Refer to the Teacher Education Program section of the catalog for requirements.
General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog
In order to meet Missouri state teacher certification requirements, candidates for the Bachelor of Science in Education degree are required to meet the following grade point average requirements: at least a 2.75 GPA on all course work attempted at all colleges attended; at least a 3.00 GPA in the certificate subject area (major field of study) which includes all courses listed under B; at least a 3.00 GPA in any additional certificate subject area; at least a 3.00 GPA in the professional education courses which includes all courses listed under C; and no grade lower than a "C" in all professional education courses. All GPA requirements include both Missouri State and transfer grades.

Not Attached

Total Hours:

What is changing? Check all boxes that apply:

☐ Title change	☐ From option to program (major)	☐ Other
☒ Course changes of under 18 hours	☐ From program (major) to option	
☐ Course changes of 18 hours or more		

Reason for Proposed Change:

Replace program requirement of MTH 533 with it's new version MTH 333.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

12/02/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

Missouri State.

Curricular Action Workflow   designed by Computer Services

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

⦿ Major (Non-Comprehensive/Graduate Program)

◯ Comprehensive Major

◯ Option

◯ Minor

◯ Certificate

◯ Certification

◯ Academic Rules

◯ Other

Title of Program Affected:

Mathematics/Actuarial Mathematics-BS-Minor Required

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

③

Mathematics (Non-Comprehensive) (BS)

Bachelor of Science

A. General Education Requirements - see General Education Program and Requirements section of catalog

B. Major Requirements

    1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), 497(1), 503(3), 532(3), 533(3), 540(3)

    2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).

    3. Select one of the following options:

        a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended

        b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)

        c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.

        d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).

    4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)

    5. Minor Required (or second major)

    6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

                                                Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

◈　➔　B　*I*　⊜

Mathematics (Non-Comprehensive) (BS)
Bachelor of Science
A. General Education Requirements - see General Education Program and Requirements section of catalog
B. Major Requirements
  1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), **333(3)**, 497(1), 503(3), 532(3), ~~533(3),~~ 540(3)
  2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
  3. Select one of the following options:
    a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended
    b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)
    c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.
    d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).
  4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)
  5. Minor Required (or second major)
  6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

.ıll

Not Attached

                                          Total Hours: No change

What is changing? Check all boxes that apply:

☐ Title change   ☐ From option to program (major)   ☐ Other

☑ Course changes of under 18 hours   ☐ From program (major) to option

☐ Course changes of 18 hours or more

Reason for Proposed Change:

The course MTH 533 has been changed to a sophomore level course MTH 333 to better meet the needs of students. As this course is part of every one of our undergraduate programs, the change is given here.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

11/18/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

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Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

⊙ Major (Non-Comprehensive/Graduate
Program)

⊙ Comprehensive Major

⊙ Option

⊙ Minor

⊙ Certificate

⊙ Certification

⊙ Academic Rules

⊙ Other

Title of Program Affected:

Mathematics-BS-Comprehensive

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Mathematics (Comprehensive) (BS)
Bachelor of Science
A. General Education Requirements - see General Education Program and Requirements section of catalog B.
Major Requirements
1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), 497(1), 503(3), 532(3), 533(3), 540(3); MTH 421(3) or 541(3)
2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
3. Select an additional 18 hours from mathematics courses numbered 400 or higher. The comprehensive major
is individualized. Selection of courses for the additional 18 hours shall be made in conference with the advisor
and is subject to approval by the department head. Students are encouraged to elect courses from other
disciplines to enhance the comprehensive major.
4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the
natural world general education requirement.)
C. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of
catalog

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

Mathematics (Comprehensive) (BS)
Bachelor of Science
A. General Education Requirements - see General Education Program and Requirements section of catalog B. Major Requirements
MTH 261(5), 280(5), 302(3), 303(3), 315(3), **333(3)** 497(1), 503(3), 532(3), ~~533(3)~~, 540(3); MTH 421(3) or 541(3)
Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
Select an additional 18 hours from mathematics courses numbered 400 or higher. The comprehensive major is individualized. Selection of courses for the additional 18 hours shall be made in conference with the advisor and is subject to approval by the department head. Students are encouraged to elect courses from other disciplines to enhance the comprehensive major.
Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the natural world general education requirement.)
C. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

Not Attached

Total Hours: 43-44

What is changing? Check all boxes that apply:

☐ Title change

☐ From option to program (major)

☐ Other

☑ Course changes of under 18 hours

☐ From program (major) to option

☐ Course changes of 18 hours or more

Reason for Proposed Change:

Replace MTH 533 Linear Algebra I with it's new version MTH 333.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

12/02/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

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Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

- ⦿ Major (Non-Comprehensive/Graduate Program)
- ○ Comprehensive Major
- ○ Option

- ○ Minor
- ○ Certificate
- ○ Certification

- ○ Academic Rules
- ○ Other

Title of Program Affected:

Mathematics-BA-Minor Required

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Mathematics (Non-Comprehensive) (BA)
Bachelor of Arts
A. General Education Requirements - see General Education Program and Requirements section of catalog B. Major Requirements
1. MTH261(5),280(5),302(3),315(3),497(1),503(3),532(3),533(3),540(3)
2. Select an additional course from: MTH 303(3), 421(3), 575(3), or from mathematics courses numbered 400 or higher. 3. Course required from related area: CSC 121(3) or 125(4) or 130(3)
4. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
C. Minor Required (or second major)
D. Specific Requirements for Bachelor of Arts Degree - see Specific Bachelor of Arts Degree Requirements section of catalog E. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog
                                                                        Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any

content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

$\Leftarrow \;\; \Rightarrow \;\; B \;\; I \;\; \ominus$

Mathematics (Non-Comprehensive) (BA)
Bachelor of Arts
A. General Education Requirements - see General Education Program and Requirements section of catalog B. Major Requirements
1. MTH261(5),280(5),302(3),315(3),**333(3)**,497(1),503(3),532(3),~~533(3)~~,540(3)
2. Select an additional course from: MTH 303(3), 421(3), 575(3), or from mathematics courses numbered 400 or higher. 3. Course required from related area: CSC 121(3) or 125(4) or 130(3)
4. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
C. Minor Required (or second major)
D. Specific Requirements for Bachelor of Arts Degree - see Specific Bachelor of Arts Degree Requirements section of catalog E. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

Not Attached

Total Hours: 32-33

What is changing? Check all boxes that apply:

- Title change
- From option to program (major)
- Other

- Course changes of under 18 hours
- From program (major) to option

- Course changes of 18 hours or more

Reason for Proposed Change:

Replace MTH 533 Linear Algebra I with MTH 333 Linear Algebra. The latter is the new version of 533.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

12/02/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

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Curricular Action Workflow   *Designed by* Computer Services

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

○ Major (Non-Comprehensive/Graduate Program)

○ Comprehensive Major

○ Option

○ Minor

○ Certificate

○ Certification

○ Academic Rules

○ Other

Title of Program Affected:

Mathematics/Applied Mathematics-BS-Minor Required

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Mathematics (Non-Comprehensive) (BS)

Bachelor of Science

A. General Education Requirements - see General Education Program and Requirements section of catalog

B. Major Requirements

    1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), 497(1), 503(3), 532(3), 533(3), 540(3)

    2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).

    3. Select one of the following options:

        a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended

        b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)

        c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.

        d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).

    4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)

    5. Minor Required (or second major)

    6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

⬅ ➡ B *I* S

Mathematics (Non-Comprehensive) (BS)
Bachelor of Science
A. General Education Requirements - see General Education Program and Requirements section of catalog
B. Major Requirements
    1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), **333(3)**, 497(1), 503(3), 532(3), ~~533(3),~~ 540(3)
    2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
    3. Select one of the following options:
        a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended
        b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)
        c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.
        d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).
    4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)
    5. Minor Required (or second major)
    6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

Not Attached

Total Hours: No change

What is changing? Check all boxes that apply:
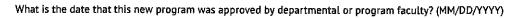
Title change	From option to program (major)	Other
Course changes of under 18 hours	From program (major) to option	
Course changes of 18 hours or more		

Reason for Proposed Change:

The course MTH 533 has been changed to a sophomore level course MTH 333 to better meet the needs of students. As this course is part of every one of our undergraduate programs, the change is given here.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

11/18/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

Missouri State.

Curricular Action Workflow

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

* Major (Non-Comprehensive/Graduate Program)

* Comprehensive Major

* Option

* Minor

* Certificate

* Certification

* Academic Rules

* Other

Title of Program Affected:

Mathematics/General Mathematics-BS-Minor Required

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Mathematics (Non-Comprehensive) (BS)

Bachelor of Science

A. General Education Requirements - see General Education Program and Requirements section of catalog

B. Major Requirements

    1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), 497(1), 503(3), 532(3), 533(3), 540(3)

    2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).

    3. Select one of the following options:

        a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended

        b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)

        c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.

        d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).

    4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)

    5. Minor Required (or second major)

    6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

✦ ✦ 🖪 *I* ⌕

Mathematics (Non-Comprehensive) (BS)
Bachelor of Science
A. General Education Requirements - see General Education Program and Requirements section of catalog
B. Major Requirements
    1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), **333(3)**, 497(1), 503(3), 532(3), ~~533(3),~~ 540(3)
    2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
    3. Select one of the following options:
        a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended
        b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)
        c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.
        d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).
    4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)
    5. Minor Required (or second major)
    6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

Not Attached

Total Hours: No change

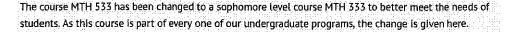**What is changing? Check all boxes that apply:**

☐ Title change	From option to program (major)	Other
☑ Course changes of under 18 hours	From program (major) to option	
☐ Course changes of 18 hours or more		

Reason for Proposed Change:

The course MTH 533 has been changed to a sophomore level course MTH 333 to better meet the needs of students. As this course is part of every one of our undergraduate programs, the change is given here.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

11/18/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

Missouri State.

Curricular Action Workflow   designed by Computer Services

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

- ⊙ Major (Non-Comprehensive/Graduate Program)
- ○ Minor
- ○ Academic Rules
- ○ Certificate
- ○ Other
- ○ Comprehensive Major
- ○ Certification
- ○ Option

Title of Program Affected:

Secondary Education/Mathematics-Accelerated-MSED

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

The accelerated master's program option in Secondary Education, Mathematics provides an opportunity for outstanding undergraduate students to begin their graduate course work during their senior year. To be eligible to apply for admission to this program, the student must have completed MTH 460, MTH 532 and MTH 533; and have a GPA of 3.5 or higher in all mathematics courses numbered MTH 261 or higher. An eligible student may apply for admission during the second semester of the junior year.

If accepted into the accelerated program, up to a maximum of 6 hours of coursework from among MTH 603, MTH 636, MTH 640 and MTH 667 taken after admission into the program may be given credit for both undergraduate and graduate programs. A student is fully admitted to the Graduate College upon completion of the requirements for the baccalaureate degree. All requirements for the master's program should be met for graduation from the master's program.

Before enrolling in a course to be counted as both undergraduate and graduate credit and to count the course toward the masters degree, an undergraduate student must be accepted into the accelerated program and receive prior approval from the graduate program advisor, department head of the undergraduate program, and the dean of the Graduate college. Acceptance into the program and all approvals must be completed prior to the end of the Change of Schedule Period for the course(s). See the Graduate College for further information.

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

  ↪   ↦   B   *I*   S

The accelerated master's program option in Secondary Education, Mathematics provides an opportunity for outstanding undergraduate students to begin their graduate course work during their senior year. To be eligible to apply for admission to this program, the student must have completed MTH 302, 333, and MTH 460; and have a GPA of 3.5 or higher in all mathematics courses numbered MTH 261 or higher. An eligible student may apply for admission during the second semester of the junior year. If accepted into the accelerated program, up to a maximum of 9 hours of coursework may be double counted in both the undergraduate and graduate programs. Specifically the courses that can be double counted in both programs are MTH 603 and 631 and one from the list: MTH 611, MTH 636, MTH 640 and MTH 667. A student is fully admitted to the Graduate College upon completion of the requirements for the baccalaureate degree. All requirements for the master's program should be met for graduation from the master's program. Before enrolling in a course to be counted as both undergraduate and graduate credit and to count the course toward the masters degree, an undergraduate student must be accepted into the accelerated program and receive prior approval from the graduate program advisor, department head of the undergraduate program, and the dean of the Graduate college. Acceptance into the program and all approvals must be completed prior to the end of the Change of Schedule Period for the course(s). See the Graduate College for further information.

Not Attached

Total Hours: 33

What is changing? Check all boxes that apply:

- Title change
- Course changes of under 18 hours
- Course changes of 18 hours or more

- From option to program (major)
- From program (major) to option

This changes the number of hours to be counted as both undergraduate and graduate credit from 6 to 9.

Other

Reason for Proposed Change:

This change is in line with other accelerated programs on campus and provides a faster pathway for students toward graduation. The list of prerequisite courses has been adjusted to better reflect expectations and allows MTH 532 (631) in the list of double counted courses. The program is further strengthened by including MTH 603 as a required course in the accelerated MSED. Also, MTH 611 (510) is added to the list of options as the dual listed course MTH 510 has been added to the list of options for the undergraduate program.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

01/21/2016

Current Status:

EPPC Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)
01/25/2016 - Reviewed by Dean (Tamera Jahnke)

Review Comments:

No comments have been added to this proposal.

Missouri State.

Curricular Action Workflow

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

- Major (Non-Comprehensive/Graduate Program)
- Comprehensive Major
- Option

- Minor
- Certificate
- Certification

- Academic Rules
- Other

Title of Program Affected:

Mathematics/Statistics-BS-Minor Required

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Mathematics (Non-Comprehensive) (BS)
Bachelor of Science
A. General Education Requirements - see General Education Program and Requirements section of catalog
B. Major Requirements
    1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), 497(1), 503(3), 532(3), 533(3), 540(3)
    2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
    3. Select one of the following options:
        a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended
        b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)
        c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.
        d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).
    4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)
    5. Minor Required (or second major)
    6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

                Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

Mathematics (Non-Comprehensive) (BS)
Bachelor of Science
A. General Education Requirements - see General Education Program and Requirements section of catalog
B. Major Requirements
    1. MTH 261(5), 280(5), 302(3), 303(3), 315(3), **333(3)**, 497(1), 503(3), 532(3), ~~533(3),~~ 540(3)
    2. Public Affairs Capstone Experience will be fulfilled by completion of MTH 497(1), 503(3), 532(3), and 540(3).
    3. Select one of the following options:
        a. Actuarial Mathematics: MTH 450(3), 541(3). Select an additional six hours from the following courses: MTH 543(3), 546(3), 547(3), 548(3). A minor in Insurance is recommended
        b. Applied Mathematics: MTH 421(3), 580(3). Select an additional six hours from the following courses: MTH 422(3), 507(3), 537(3), 543(3), 570(3)
        c. General Mathematics: MTH 421(3) or 541(3). Select an additional nine hours from mathematics courses numbered 400 or higher.
        d. Statistics: MTH 541(3). Select an additional nine hours from the following courses: MTH 543(3), 545(3), 546(3), 547(3), 548(3).
    4. Courses required from related areas: CSC 125(4) or 130(3); PHY 203(5) (PHY 203 may partially fulfill the Natural World general education requirement.)
    5. Minor Required (or second major)
    6. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog.

Not Attached

                Total Hours: No change

What is changing? Check all boxes that apply:

  Title change   From option to program (major)   Other

  Course changes of under 18 hours   From program (major) to option

  Course changes of 18 hours or more

Reason for Proposed Change:

The course MTH 533 has been changed to a sophomore level course MTH 333 to better meet the needs of students. As this course is part of every one of our undergraduate programs, the change is given here.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

11/18/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

Missouri State.

Curricular Action Workflow

Change Program Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

Department:

Mathematics

Type of Program
Choose One:

◉ Major (Non-Comprehensive/Graduate Program)

○ Minor

○ Academic Rules

○ Certificate

○ Other

○ Comprehensive Major

○ Certification

○ Option

Title of Program Affected:

Mathematics-MS

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

⟵ ⟶ B *I* S̶

Attached

What is changing? Check all boxes that apply:

☐ Title change

☐ From option to program (major)

☐ Other

☑ Course changes of under 18 hours   From program (major) to option

☐ Course changes of 18 hours or more

Reason for Proposed Change:

The undergraduate course MTH 533 Linear Algebra I has been replaced by MTH 333 Linear Algebra. The change in the MS program reflects this in the entrance requirements.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

11/18/2015

Current Status:

Grad Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)
01/25/2016 - Reviewed by Dean (Tamera Jahnke)

Review Comments:

No comments have been added to this proposal.

Master of Science, Mathematics

Entrance requirements

Students seeking admission to the Master of Science program in mathematics must meet the general Graduate College requirements for admission as degree-seeking students. In addition, students must have the following.

1. Students must have credit for MTH 503 Advanced Calculus; MTH 532 Abstract Algebra; MTH 533 Linear Algebra; MTH 540 Statistical Theory I, or equivalent courses.
2. Students must have a GPA, in upper division mathematics courses beyond the first calculus sequence, of 3.00 or higher on a 4.00 scale.

Students who do not meet conditions 1 and 2 above may be admitted conditionally. Deficiencies must be made up with B grades or above in courses approved by the mathematics department. Credit in such courses will not count toward the total hours required for the Master of Science in mathematics.

Degree requirements (minimum of 32 hours)

1. A minimum of 18 semester hours of 700 level mathematics courses (except MTH 796). At least one of the following four courses must be completed:

   MTH 702 Real and Abstract Analysis
   MTH 732 Abstract Algebra II
   MTH 722 Theory of Ordinary Differential Equat. II
   MTH 742 Statistical Inference II

   Students planning to continue to a PhD degree are strongly advised to take the analysis and algebra sequences.

2. Mathematics Electives. From 4 to 15 elective hours in mathematics, dependent upon hours of research and other electives.
3. Related Electives. A maximum of 6 hours of elective courses in fields related to mathematics may be taken with the approval of the student's advisor.
4. Research Requirements. 1-6 semester hours of course work from MTH 791, MTH 792, MTH 798, or MTH 799, but a maximum of 6 semester hours may be applied toward the requirement for the MS

degree. This requirement will be met in one of the following ways:

    a. Option I: Completion of a satisfactory thesis in the candidate's discipline. Thesis credit shall be no more than 6 semester hours of the minimum 32 hours required for a master's degree.

    b. Option II: Completion of a minimum of two seminars, each of which shall require an extensive paper or major creative work.

Comprehensive Examination. A comprehensive examination must be passed by the candidate before a degree will be granted.

Missouri State.

Curricular Action Workflow   *Designed by* Computer Services

Change Course Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

*All fields require input

This proposal applies to:

○   An existing COURSE

○   An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

MTH533 Linear Algebra I

Will this proposal need to be reviewed by CGEIP?   ● No ○ Yes

Will this proposal need to be reviewed by EPPC?   ● No ○ Yes

Current online catalog description:

MTH 533 Linear Algebra I

Prerequisite: MTH 280 and MTH 315. Vector spaces, linear independence, inner product spaces, linear transformations, Eigenvectors, diagonalization. May be taught concurrently with MTH 633. Cannot receive credit for both MTH 633 and MTH 533. 3(3-0) F,S

Revise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please review prior to submission.)

◆ ◆ | B *I* S

MTH ~~533~~ **333** Linear Algebra I

Prerequisite: MTH 280 ~~and MTH 315~~. **Systems of linear equations, matricies and matrix algebra, determinants,** ~~Vector~~ **vector** vector spaces, linear independence, inner product spaces, linear transformations, ~~Eigenvectors~~, **eigenvectors**, diagonalization, **various applications and computational aspects.** ~~May be taught concurrently with MTH 633. Cannot receive credit for both MTH 633 and MTH 533.~~ 3(3-0) F,S

What is changing? Check all boxes that apply.

☐   Course Code   ☐   Course Number (Check Availability)   ☐   Title   ☐   Prerequisite

Credit Hours/Contact Hours   Periodicity   Description

Reason for proposed change

Moving our first Linear algebra (currently MTH 533) to the sophomore level will better serve the needs of students in mathematics, the sciences, and engineering. This change is also in line with the recommendations of the Committee on the Undergraduate Program in Mathematics of the Mathematical Association of America.

Does this change affect course assessment? ⬤ No   Yes

How did you determine the need for this change? Check all boxes that apply or specify other.

☑ Routine or annual review/assessment of curriculum   ☐ Faculty Input   ☐ Student Input

☐ Accreditation/certification compliance   ☐ Review of catalog information

☐   As mentioned above, this change is in line with the recommendations of the Committee on the
Other (be specific): Undergraduate Program in Mathematics of the Mathematical Association of America.

☐ Check if this is a non-substantive change.

What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY)   12/02/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

███████████

Missouri State.

(12)

Curricular Action Workflow   designed by Computer Services

Change Course Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

*All fields require input
This proposal applies to:

　　　An existing COURSE.

　　　An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

MTH534 Linear Algebra II

Will this proposal need to be reviewed by CGEIP?　　No　　Yes

Will this proposal need to be reviewed by EPPC?　　No　　Yes

Current online catalog description:

MTH 534 Linear Algebra II

Prerequisite: MTH 533. Topics include eigenvalue problems; Jordan normal form, linear functionals, bilinear forms, quadratic forms, orthogonal and unitary transformations, Markov processes, and other topics selected by the instructor. May be taught concurrently with MTH 634. Cannot receive credit for both MTH 634 and MTH 534. 3(3-0) D

Revise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please review prior to submission.)

　　←　　→　　B　　*I*　　~~S~~

MTH 534 **Advanced** Linear Algebra ~~II~~

Prerequisite: MTH 315 and MTH 333 ~~MTH 533~~. Topics **may** include eigenvalue problems; Jordan normal form, linear functionals, bilinear forms, quadratic forms, orthogonal and unitary transformations, Markov processes, and other topics selected by the instructor. May be taught concurrently with MTH 634. Cannot receive credit for both MTH 634 and MTH 534. 3(3-0) D

What is changing? Check all boxes that apply.

Course Code	Course Number (Check Availability)	Title	Prerequisite

Credit Hours/Contact Hours	Periodicity	Description

Reason for proposed change

This is a prerequisite change to MTH 315 and 333 corresponding to the course change of MTH 533 to MTH 333.

Does this change affect course assessment?   No   Yes

How did you determine the need for this change? Check all boxes that apply or specify other.

☑ Routine or annual review/assessment of curriculum   Faculty Input   Student Input

☐ Accreditation/certification compliance   Review of catalog information

☐ Other (be specific):

☐ Check if this is a non-substantive change.

What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY)   12/02/2015

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)

Review Comments:

No comments have been added to this proposal.

Missouri State.

Curricular Action Workflow

Delete Course Proposal Form

Submitted on 01/22/2016 by William Bray (WBray@MissouriState.edu).

*All fields require input
This proposal applies to:

　　　An existing COURSE

　　　An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

MTH633 Linear Algebra I

Will this proposal need to be reviewed by CGEIP?　　No　　Yes

Will this proposal need to be reviewed by EPPC?　　No　　Yes

Online catalog description.

Prerequisite: MTH 280 and MTH 315. Vector spaces, linear independence, inner product spaces, linear transformations, Eigenvectors, diagonalization. May be taught concurrently with MTH 533. Cannot receive credit for both MTH 533 and MTH 633. 3(3-0) F,S

Reason for proposed Deletion

Corresponding course MTH 533 will no longer be offered (changed to a 300 level course).

How did you determine the need for this change? Check all boxes that apply or specify other.

☑ Routine or annual review/assessment of curriculum	☑ Faculty Input	☐ Student Input
☐ Accreditation/certification compliance	☐ Review of catalog information	
☐ Other (be specific):		

What is the date that this course change was approved by departmental or program faculty?　　12/02/2015

Current Status:

Grad Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (William Bray)
01/25/2016 - Reviewed by Dean (Tamera Jahnke)

Review Comments:

No comments have been added to this proposal.

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PASSION
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Missouri State.

Curricular Action Workflow   ⑥ *designed by* Computer Services

Change Course Proposal Form

Submitted on 01/22/2016 by Gary Michelfelder (GaryMichelfelder@MissouriState.edu).

*All fields require input

This proposal applies to:

- ◉   An existing COURSE

- ○   An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

GLG340 Structural Geology

Will this proposal need to be reviewed by CGEIP?   ◉ No   ○ Yes

Will this proposal need to be reviewed by EPPC?   ◉ No   ○ Yes

Current online catalog description:

GLG 340 Structural Geology

Prerequisite: GLG 314 and GLG 333 or concurrent enrollment; and either MTH 138 or MTH 181.
Recommended Prerequisite: PHY 123 or PHY 203. Elementary theory of stress and strain, rock behavior,
continuous structures, fracture theory, discontinuous structures and kinematics of plate motion. A grade
of "C" or better is required in this course in order to take GLG 413. Cannot be taken Pass/Not Pass.
4(3-2) S

Revise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please review prior to submission.)

⬅   ➡   **B**   *I*   ~~S~~

GLG 340 Structural Geology
Prerequisite: GLG 314, GLG 333 and GLG 334 or concurrent enrollment; and either MTH 138 or MTH 181. Recommended Prerequisite: PHY 123 or PHY 203.
Elementary theory of stress and strain, rock behavior, continuous structures, fracture theory, discontinuous structures and kinematics of plate motion. Field trips
required. A grade of "C" or better is required in this course in order to take GLG 413. Cannot be taken Pass/Not Pass. 4(3-2) F or S

What is changing? Check all boxes that apply.

Course Code   Course Number (Check Availability)   Title   Prerequisite

Credit Hours/Contact Hours   Periodicity   Description

Reason for proposed change

Update to catalog course description to add field component.

Addition of a new prerequisite course, GLG 334 Sedimentary Geology, as result of changes made to GLG 333 moving required material to the new course GLG 334.

Course is proposed to be offered in either fall or spring semester to distribute the contact hour load of instructor.

Does this change affect course assessment?   No   Yes

How did you determine the need for this change? Check all boxes that apply or specify other.

 Routine or annual review/assessment of curriculum   Faculty Input   Student Input

 Accreditation/certification compliance   Review of catalog information

 Other (be specific):

 Check if this is a non-substantive change.

What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY)   10/01/2015

Current Status:

Department Head Review

Proposal Progress:

This proposal is waiting for its first review.

Review Comments:

No comments have been added to this proposal.

(15)

Missouri State.

Curricular Action Workflow   *designed by* Computer Services

Change Program Proposal Form

Submitted on 01/22/2016 by Matthew Siebert (MSiebert@MissouriState.edu).

Department:

Chemistry

Type of Program
Choose One:

◉ Major (Non-Comprehensive/Graduate Program)

○ Comprehensive Major

○ Option

○ Minor

○ Certificate

○ Certification

○ Academic Rules

○ Other

Title of Program Affected:

Chemistry-BS-Minor Required

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Chemistry (Non-Comprehensive)

Bachelor of Science

A. General Education Requirements - see General Education Program and Requirements section of catalog

B. Major Requirements

1. CHM 160(4), 161(1), 170(3), 171(1), 302(5), 342(5), 343(5), 375(3), 398(1)*; CHM 505(4) or 506(3) and CHM 507(3) and 508(2); 492(0), 498(1)*, 502(4); and one hour from CHM 397*, 399* or 499*

2. Chemistry electives (8-10 hours) from one of the following categories:

a. For a basic chemistry program without a specific area of emphasis, at least eight hours from CHM 352(3), 376(2), 399* or 499(2-3)*, 460(3), 509(2)

b. For students with a strong interest in environmental chemistry: CHM 460(3), 461(3), 462(2)

c. For students with a strong interest in biochemistry or pre-medicine: CHM 452(3), 453(2), 552(3), 553(2)

d. For a specific area of interest not included in categories a, b, or c: at least nine hours of chemistry courses numbered 300 or higher selected in consultation with the student's academic advisor and approved by the department head.

3. Public Affairs Capstone Experience will be fulfilled by completion of CHM 398 and 498(2); and CHM 397 or 399 or 499(1)

4. Related science and mathematics requirements:

MTH 261** and 280(10) or MTH 261** and 288(8) or MTH 287 and 288(6)
PHY 123** and 124(8) or PHY 203** and 204(10)
*Will also count toward the Public Affairs Capstone Experience requirement
**Will also count toward General Education requirements   Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

✦ ✦ B I S

Chemistry (Non-Comprehensive)

Bachelor of Science

A. General Education Requirements - see General Education Program and Requirements section of catalog

B. Major Requirements

1. CHM 160(4), 161(1), 170(3), 171(1), 302(5), 342(5), 343(5), 375(3), 398(1)*; CHM 505(4) or 506(3) and CHM 507(3) and 508(2); 492(0), 498(1)*, 502(4); and one hour from CHM 397*, or 399*,** or 499*

2. Chemistry electives (8-10 hours) from one of the following categories:

a. For a basic chemistry program without a specific area of emphasis, at least eight hours from CHM 352(3), 376(2), 399*,** or 499(21-3)*, 460(3) or 461(3), 509(2)

b. For students with a strong interest in environmental chemistry: CHM 460(3), 461(3), 462(2)

c. For students with a strong interest in biochemistry or pre-medicine: CHM 452(3), 453(2), 552(3), 553(2)

d. For a specific area of interest not included in categories a, b, or c: at least nine hours of chemistry courses numbered **greater than** 300 or higher selected in consultation with the student's academic advisor and approved by the department head.

3. Public Affairs Capstone Experience will be fulfilled by completion of CHM 398 and 498(2); and CHM 397 or 399 or 499(1)

4. Related science and mathematics requirements:

MTH 261*** and 280(10) or MTH 261*** and 288(8) or MTH 287 and 288(6)
PHY 123*** and 124(8) or PHY 203*** and 204(10)
*Will also count toward the Public Affairs Capstone Experience requirement
**If using CHM399 to fulfill B.1. and B.2.a.: Any hours of CHM399 used to fulfill B.2.a. are in addition to B.1.
***Will also count toward General Education requirements

C. Minor Required (or second major)

D. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

Not Attached

Total Hours: 125; unchanged

What is changing? Check all boxes that apply:

- ☐ Title change
- ☒ Course changes of under 18 hours
- ☐ Course changes of 18 hours or more
- ☐ From option to program (major)
- ☐ From program (major) to option
- ☐ Other

Reason for Proposed Change:

Regarding B.2. Striking 8-10 disambiguates the intention of the four options, given that each lists the intended specific number of hours required. Regarding B.2.a. We propose adding CHM461 (3; Environmental Chemistry: Air and Energy) as an alternative to CHM460 (3; Environmental Chemistry: Water and Land); both courses are in the field of environmental chemistry, however, they are independent classes. Regarding B.2.d. We propose the modified phrasing to ensure that students experience coursework other than CHM300 (a repeatable course) for their chemistry electives (B.2.). In regards to addition of a footnote (**), this is to clarify the point that a single hour of CHM399 cannot be applied to B.1. and B.2.a. Please note that it is intended for a superscript comma separate * and ** following 399, however the superscript option is not available in the curriculum action workflow system.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

01/22/2016

Current Status:

College Council Review

Proposal Progress:

01/22/2016 - Submitted by Department Head (Bryan Breyfogle)

Review Comments:

No comments have been added to this proposal.

Missouri State.

$$\left(\widetilde{16}\right)$$

Curricular Action Workflow ⑤ *designed by* Computer Services

Change Program Proposal Form

Submitted on 01/08/2016 by Matthew Siebert (MSiebert@MissouriState.edu).

Department:

Chemistry

Type of Program
Choose One:

○ Major (Non-Comprehensive/Graduate Program)

○ Comprehensive Major

○ Option

○ Minor

○ Certificate

○ Certification

○ Academic Rules

○ Other

Title of Program Affected:

Chemistry Education/Unified Science-BSED

Current Catalog Description: (Either cut and paste present description from online catalog OR provide as an attachment below)

Chemistry Education

Bachelor of Science in Education (Certifiable grades 9-12)

A. General Education Requirements - see General Education Program and Requirements section of catalog
The following required courses can be used to meet both General Education and Major Requirements: BIO 121(4); PHY 123(4) or GLG 110(4) or GLG 171(3); MTH 287(3)

B. Major Requirements:

1. Core (30-35 hours): CHM 160(4), 161(1), 170(3), 171(1); CHM 201(3) and 202(2), or CHM 342(5) and 343(5), or CHM 342(5) and 344(3); CHM 302(5), 352(3), 435(1), 460(3), 505(4)
Note: Students seeking American Chemical Society certification must take either CHM 342 and 343, or CHM 342 and 344.
2. Related Requirements (21-22 hours): PHY 123(4), 124(4); SCI 505(3); BIO 121(4); GLG 110(4) or GLG 171(3); MTH 287(3)
3. Complete the requirements in one of the following grades 9-12 certification areas:
a. Categorical Science (3 hours): CHM 375(3)
b. Unified Science (13 hours): CHM 463(1); BIO 122(4); GLG 110(4); GRY 135(4)

4. Public Affairs Capstone Experience will be fulfilled by completion of SCI 214(1), 314(3), 414(3), 493(6), 494(6).

C. Professional Education courses (38 hours). Note: A grade of "C" or better in each course is required for state certification.
SCI 214(1), 314(3), 414(3), 493(6), 494(6)
Professional Education Required Core and Competencies - see Teacher Certification, Teacher Education Program and Secondary Education Requirements section of catalog

D. This program also requires compliance with the Teacher Education Program requirements for eligibility to enroll in Professional Education courses; admission to and continuance in the Teacher Education Program; approval for supervised teaching; and recommendation for certification; as well as the requirements for Secondary Education. Refer to the Teacher Education Program section of the catalog for requirements.

E. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

F. In order to meet Missouri state teacher certification requirements, candidates for the Bachelor of Science in Education degree are required to meet the following grade point average requirements: at least a 2.75 GPA on all course work attempted at all colleges attended; at least a 3.00 GPA in the certificate subject area (major field of study) which includes all courses listed under B; at least a 3.00 GPA in any additional certificate subject area; at least a 3.00 GPA in the professional education courses which includes all courses listed under C; and no grade lower than a "C" in all professional education courses. All GPA requirements include both Missouri State and transfer grades.

Not Attached

Complete New Catalog Description: (Either provide the revised description in the text area below [strikethrough all deletions and insert/bold new information - any content that is copied and pasted will lose existing formatting; please review prior to submission] OR provide as an attachment below)

(16)

Chemistry Education

Bachelor of Science in Education (Certifiable grades 9-12)

A. General Education Requirements - see General Education Program and Requirements section of catalog

The following required courses can be used to meet both General Education and Major Requirements: BIO 121(4); PHY 123(4) or GLG 110(4) or GLG 171(3); MTH 287(3)

B. Major Requirements:

1. Core (30-35 hours): CHM 160(4), 161(1), 170(3), 171(1); CHM 201(3) and 202(2), or CHM 342(5) and 343(5), or CHM 342(5) and 344(3); CHM 302(5), 352(3), 435(1), 460(3), 505(4)

Note: Students seeking American Chemical Society certification must take either CHM 342 and 343, or CHM 342 and 344.

2. Related Requirements (21~~2224~~ hours): PHY 123(4), 124(4); SCI 505(3); BIO 121(4); GLG 110(4) or GLG 171(3); MTH 287(3) **or MTH261(5)**

3. Complete the requirements ~~in one of the following~~ **for** grades 9-12 **Unified Science** certification ~~areas:~~

~~a. Categorical Science (3 hours): CHM 375(3)~~

~~b. Unified Science~~ (13-**14** hours): CHM **462(2) or** 463(1); BIO 122(4); GLG 110(4); GRY 135(4)

4. Public Affairs Capstone Experience will be fulfilled by completion of SCI 214(1), 314(3), 414(3), 493(6), 494(6).

C. Professional Education courses (38 hours). Note: A grade of "C" or better in each course is required for state certification.

SCI 214(1), 314(3), 414(3), 493(6), 494(6)

Professional Education Required Core and Competencies - see Teacher Certification, Teacher Education Program and Secondary Education Requirements section of catalog

D. This program also requires compliance with the Teacher Education Program requirements for eligibility to enroll in Professional Education courses; admission to and continuance in the Teacher Education Program; approval for supervised teaching; and recommendation for certification; as well as the requirements for Secondary Education. Refer to the Teacher Education Program section of the catalog for requirements.

E. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

F. In order to meet Missouri state teacher certification requirements, candidates for the Bachelor of Science in Education degree are required to meet the following grade point average requirements: at least a 2.75 GPA on all course work attempted at all colleges attended; at least a 3.00 GPA in the certificate subject area (major field of study) which includes all courses listed under B; at least a 3.00 GPA in any additional certificate subject area; at least a 3.00 GPA in the professional education courses which includes all courses listed under C; and no grade lower than a "C" in all professional education courses. All GPA requirements include both Missouri State and transfer grades.

Not Attached

Total Hours: 137; unchanged

What is changing? Check all boxes that apply:

☐ Title change   ☐ From option to program (major)   ☒ Other

☒ Course changes of under 18 hours   ☐ From program (major) to option   deletion of option.

☐ Course changes of 18 hours or more

Reason for Proposed Change:

Regarding 3., deletion of Categorical Science option: this change is requested by the chemistry education faculty within the department that have found the Categorical Science option does not produce marketable teachers. Regarding 3, addition of hours/addition of option: The current requirement CHM463(1) is a first block class crosslisted with CHM462(2) a full semester class. We propose allowing CHM462(2) to fulfill the environmental chemistry lab requirement to allow students to take the full-semester course at their preference.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

01/08/2016

Current Status:

College Council Review

Proposal Progress:

01/12/2016 - Submitted by Department Head (Bryan Breyfogle)

Review Comments:

No comments have been added to this proposal.

Missouri State.

Curricular Action Workflow ⑤ designed by Computer Services

Change Course Proposal Form

Submitted on 01/08/2016 by Matthew Siebert (MSiebert@MissouriState.edu).

*All fields require input
This proposal applies to:

◉   An existing COURSE

○   An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

CHM399 Undergraduate Investigations

Will this proposal need to be reviewed by CGEIP?   ◉ No   ○ Yes

Will this proposal need to be reviewed by EPPC?   ◉ No   ○ Yes

Current online catalog description:

CHM 399 Undergraduate Investigations

Prerequisite: permission of instructor. Individual investigation of a chemical problem. May be
repeated to a total of 5 hours. Public Affairs Capstone Experience course. 1-3 F,S

Revise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing
formatting; please review prior to submission.)

⤺   ⤻   **B**   *I*   S̶

CHM 399 Undergraduate ~~Investigations~~ **Research**

Prerequisite: permission of instructor. Individual investigation of a chemical problem **under the guidance of a chemistry department faculty
member. Students are required to consult with the chemistry department to obtain a research information packet and to discuss research
options with chemistry faculty members. A formal written report is required for this course.** May be repeated to a total of 5 hours. Public Affairs
Capstone Experience course. 1-3 F,S,**Summer**

What is changing? Check all boxes that apply.

☐   Course Code   ☐   Course Number (Check Availability)   ☐   Title   ☐   Prerequisite

Credit Hours/Contact Hours   Periodicity   Description

Reason for proposed change

We propose changing the title to make it clear to students that CHM399 involves research. The changes to the course description are to provide more information to the student regarding the content and requirements of the course. The written report and periodicity are already departmental policy, included an undergraduate research information packet that each student reads and completes before enrolling in the course.

Does this change affect course assessment?   No   Yes

How did you determine the need for this change? Check all boxes that apply or specify other.

☐   Routine or annual review/assessment of curriculum   ☐   Faculty Input   ☐   Student Input

☐   Accreditation/certification compliance   ☐   Review of catalog information

☐   Other (be specific):

☐   Check if this is a non-substantive change.

What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY)   01/08/2016

Current Status:

College Council Review

Proposal Progress:

01/12/2016 - Submitted by Department Head (Bryan Breyfogle)

Review Comments:

No comments have been added to this proposal.

(18)

Missouri State.

Curricular Action Workflow 🔆 *designed by* Computer Services

Change Course Proposal Form

Submitted on 01/08/2016 by Matthew Siebert (MSiebert@MissouriState.edu).

*All fields require input

This proposal applies to:

- An existing COURSE

- An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

CHM499 Advanced Undergraduate Research

Will this proposal need to be reviewed by CGEIP?   ○ No ○ Yes

Will this proposal need to be reviewed by EPPC?   ○ No ○ Yes

Current online catalog description:

CHM 499 Advanced Undergrad Research

Prerequisite: senior standing Chemistry major. Individual research problems in chemistry. A written report is required for this course. May be repeated to a total of 5 hours. Public Affairs Capstone Experience course. 1-3 F,S

Revise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please review prior to submission.)

◆ ◆ **B** *I* ~~S~~

CHM 499 Advanced Undergrad**uate** Research

Prerequisite: **CHM398, CHM399,** ~~senior standing Chemistry major~~ **and permission of instructor.** ~~Individual research problems in chemistry.~~ **Investigation of a research project as a continuation from CHM399 or pursuit of more advanced study under the guidance of a chemistry department faculty member. A formal** written report **and formal oral presentation of the research conducted are** ~~is~~ required for this course. May be repeated to a total of 5 hours. Public Affairs Capstone Experience course. 1-3 F,S,**Summer**

What is changing? Check all boxes that apply.

☐ Course Code ☐ Course Number (Check Availability) ☑ Title ☑ Prerequisite

Credit Hours/Contact Hours   Periodicity   Description

Reason for proposed change

Prerequisites are being added that introduce fundamental skills in chemistry research (CHM399).
Additionally, permission of the faculty member (research advisor) is being added to the description to
match departmental policy. The changes to the course description are to
provide more information to the student regarding the content and requirements of the course. The oral
presentation is already required per departmental policy to promote oral communication skills of students
and to differentiate this course (in both rigor and expectations) from CHM399, which requires only a
written report.

Does this change affect course assessment?   No   Yes

How did you determine the need for this change? Check all boxes that apply or specify other.

Routine or annual review/assessment of curriculum   Faculty Input   Student Input

Accreditation/certification compliance   Review of catalog information

Other (be specific):

Check if this is a non-substantive change.

What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY)   01/08/2016

Current Status:

College Council Review

Proposal Progress:

01/12/2016 - Submitted by Department Head (Bryan Breyfogle)

Review Comments:

No comments have been added to this proposal.

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1/27/2016 11:14 AM

Missouri State.

Curricular Action Workflow 🖉 *designed by* Computer Services

Change Course Proposal Form

Submitted on 01/21/2016 by Ryan Udan (RyanUdan@MissouriState.edu).

*All fields require input

This proposal applies to:

　○　An existing COURSE

　　An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

BIO355 Developmental Biology

Will this proposal need to be reviewed by CGEIP?　　○ No　　○ Yes

Will this proposal need to be reviewed by EPPC?　　○ No　　○ Yes

Current online catalog description:

BIO 355 Developmental Biology

Prerequisite: BIO 235. An introduction to mechanistic embryology of selected vertebrate, invertebrate, and plant model systems. Lecture emphasis on fertilization, morphogenesis, cell surface roles in morphogenesis, cell motility, organo-genesis, metamorphosis, regeneration, and neoplasia as a developmental system. Laboratory emphasis on the normal ontogenetic development of live animal and plant systems and the experimental modification of these systems. Cannot receive credit for both BIO 355 and BIO 755. Public Affairs Capstone Experience course. 4(3-2) D

Revise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please review prior to submission.)

　◆　　◆　　B　　*I*　　S

BIO 355 Developmental Biology

Prerequisite: BIO 235. An introduction to mechanistic embryology of selected vertebrate, invertebrate, and plant model systems. Lecture emphasis on fertilization, morphogenesis, cell surface roles in morphogenesis, cell motility, organo-genesis, metamorphosis, regeneration, and neoplasia as a developmental system. Laboratory emphasis on the normal ontogenetic development of live animal and plant systems and the experimental modification of these systems. Cannot receive credit for both BIO 355 and BIO ~~7~~655. Public Affairs Capstone Experience course. 4(3-2) D

What is changing? Check all boxes that apply.

　　　Course Code　　　　　　　Course Number (Check Availability)　　　　Title　　　　　　Prerequisite

　　　Credit Hours/Contact Hours　　　Periodicity　　　　　　　　　　Description

Reason for proposed change

one section of the course description had to be changed. Specifically, a note that course credit cannot
be received for both Bio355 and Bio655 (previously Bio755)

Does this change affect course assessment?　　No　　Yes

How did you determine the need for this change? Check all boxes that apply or specify other.

　　　Routine or annual review/assessment of curriculum　　　　　　Faculty Input　　　　Student Input

　　　Accreditation/certification compliance　　　　　　　　　Review of catalog information

　　　Other (be specific):　A note from the graduate college, as based on the change of Bio755 to Bio655

　　　Check if this is a non-substantive change.

What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY)　　01/21/2016

Current Status:

Department Head Review

Proposal Progress:

This proposal is waiting for its first review.

Review Comments:

No comments have been added to this proposal.

(20)

Missouri State.

Curricular Action Workflow ⬡ designed by Computer Services

New Course Proposal Form

Submitted on 01/19/2016 by Ryan Udan (RyanUdan@MissouriState.edu).

*All fields require input

☑ New COURSE

☐ New REGULAR PERMANENT SECTION of an existing variable content course. If a new regular section of an existing variable topics course, enter the existing course number below

Course Code:
BIO

Course Number: (Check Availability)
655

Course Title:
Developmental Biology

Will this proposal need to be reviewed by EPPC?   ☉ No   ☐ Yes

Prerequisite/Co-requisite or enter 'None':
None

General Course Description: (Include any Pass/Not Pass grading restrictions, repeatable limits, limitation on course applicability, UG/GR parallel course, etc.)

Recommended Prerequisite: cell biology course. An in-depth study of the molecular and cellular mechanisms involved in the development of vertebrate, invertebrate, and plant systems. Lectures will emphasize fertilization, morphogenesis, differentiation, induction, regeneration, and neoplasia. Laboratory exercises will emphasize techniques utilized by developmental biologists. Review of current literature and poster presentations will be required. Cannot receive credit for both BIO 355 and BIO 755. 4(3-2) S

Credit Hours: 4   Lecture Contact Hours: 3   Lab Contact Hours: 2

Note: If variable credit, enter the highest number and add to end of course description. (e.g. "Variable credit, may be taken 1-3 hours.")

Periodicity. Check all that apply.

☐ Fall   ☐ Fall (even-numbered years only)   ☐ Fall (odd-numbered years only)

Spring   Spring (even-numbered years only)   Spring (odd-numbered years only)

Summer   On Demand only

Complete Catalog Description:
BIO 655 Developmental Biology
Prerequisite: None
Recommended Prerequisite: cell biology course. An in-depth study of the molecular and cellular mechanisms involved in the development of vertebrate, invertebrate, and plant systems. Lectures will emphasize fertilization, morphogenesis, differentiation, induction, regeneration, and neoplasia. Laboratory exercises will emphasize techniques utilized by developmental biologists. Review of current literature and poster presentations will be required. Cannot receive credit for both BIO 355 and BIO 755. 4(3-2) S
Credit hours: 4 Lecture contact hours: 3 Lab contact hours: 2
Typically offered: Spring

Include sample syllabus (list topics, course goals.) Use text box OR upload only file types of PDF, DOC or DOCX.

Attached

Purpose of Course

A graduate-level course on developmental biology that will be taught concurrently with the
undergraduate developmental biology course (Bio355)

Relationship to Other Departments

None

Is there a graduate/undergraduate parallel course to this one?   No   Yes

Enter parallel course number
BIO355 Developmental Biology

How do these classes differ?
Bio655 will also require an extensive review article on a topic in the field of developmental biology.

New Course Resource Information

Anticipated Average Enrollment per section:	3	Maximum Enrollment Limit per section:	6
Anticipated Average Enrollment per semester:	3	Maximum Enrollment Limit per semester:	6
Anticipated Average Enrollment per year:	3	Maximum Enrollment Limit per year:	6
Faculty Load Assignment (equated hours):	0		

Is another course being deleted?   No   Yes

What will this course require in the way of:

(20)

Additional library Holdings

Additional computer resources

Additional or remodeled facilities

Additional equipment or supplies

Additional travel funds

Additional faculty; general vs specialized

Additional faculty; regular vs per-course

Other additional expenses

If additional faculty are not required, how will faculty be made available to teach this course?

List names of current faculty qualified and available to teach this course

Ryan Udan
Paul Durham

What is the anticipated source of students for this course?

Graduate students in MNAS or in department of biology

If from within the department, will students be taking this course in addition to or in place of other courses?

no

If from outside the department, which courses in other departments would most likely be affected?)

no

Other comments:

What is the date that this new course was approved by departmental or program faculty? (MM/DD/YYYY)   01/19/2016

Current Status:

Department Head Review

Proposal Progress:

This proposal is waiting for its first review.

Review Comments:

No comments have been added to this proposal.

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Biology 355/655 Developmental Biology (DB)
Syllabus and Statement of Policy
Spring 2017

Purpose: To provide a better understanding of the molecules within cells and of the interactions between cells that allows construction of multicellular organisms. Between fertilization and birth, the developing organism is known as an embryo. To become an embryo, you had to build yourself from a single cell. You had to respire before you had lungs, digest before you had a gut, and must have blood vessels before you pump blood through the body. One of the critical differences between you and a machine is that a machine is never required to function until after it is built. Every animal and plant has to function as it builds itself.

Developmental biology (DB) is one of the fastest growing and most exciting fields in biology, creating a framework that integrates molecular biology, physiology, cell biology, genetics, anatomy, cancer research, neurobiology, immunology, ecology, and evolutionary biology. The study of development has become essential for understanding any other area of biology.

Lecture: MWF 1:25 pm – 2:15 pm, TEMP 0143
Lab Sec 1: M 2:30 pm –4:20 pm, TEMP 0143 (for "wet" labs TEMP 0213)

Instructor: Dr. Ryan Udan
Office: TEMP 227
Phone: 836-5307
E mail: ryanudan@missouristate.edu
Office Hours: W 2:30-4pm ; F 2:30-4pm or by appointment

Text: Required: Developmental Biology, 10th Edition, Scott F. Gilbert.

Important Dates:
Final Exam – Monday May 9th from 1:15 – 3:15 pm.

Examinations and Grades:

Exams: There will be three midterm exams and a final exam that will cover material presented in the lectures for that section. The exams will consist primarily of multiple-choice questions (100 pts) and a few short answer questions (25 pts). Make-up exams will be given only in extraordinary circumstances that are legitimate and documented. They will be made more challenging than regularly scheduled exams. The arrangement for the make-up exam must be made before the missed exam.

Quizzes: There will be 10 quizzes given at the beginning of lab/discussion periods that will be worth 5 pts each (for dates, see lab schedule). The points from your ten quiz scores will be used to determine the total number of points earned (50 pts maximum). No make-up quizzes will be given. The quizzes will consist of 5 multiple choice questions over the previous week's lecture material. It is my intent that this will help you be better prepared for the regularly scheduled exams.

Debate/Discussions: Three topics have been selected that we will debate in lab class. To prepare for the lab class, students will read the chapters that correspond to the topic (see lab schedule below). All students will be required to turn in on the day of the discussion a short statement (no more than one

1

page single spaced) that summarizes their position on the topic for discussion. Late papers will not be accepted. Each topic will be worth 20 pts. Thus, the total possible pts earned will be 60 pts, since there are 3 discussion topics. (**Note:** This year, some discussions may be replaced with lab guides)

Lab guides: There will be 3 "wet" labs for the course that will meet in TEMP 213 (see lab schedule). These labs will introduce several developmental model organisms (*Drosophila*, Frogs and Mouse). During the labs, you will follow the lab guide (provided in class) by filling in the answers, or drawing and labeling items as based on your observations. The labs will involve some dissection (*Drosophila* larvae), observation of premade slides of frog embryo development, and observation of prefixed/whole-mount mouse embryos. **The lab guide will be completed and turned in on the day of the lab, and there will be no make ups for the lab**. Each lab guide will be worth 20 pts. Thus, the total possible pts earned will be 60 pts, since there are 3 wet labs.

Journal club presentation: You will be required to prepare and present a PowerPoint presentation over data from a primary research paper in the area of developmental biology and then lead the discussion on that particular paper. Your presentation will be no more than 15 minutes with 5 minutes of questions/discussion. The slide preparation will be worth 20 pts and your oral presentation will also be worth 20 pts for a total of 40 pts.

The final grade will be composed of the following with each lecture exam and the average of the review/presentation and quizzes weighted equally:

Undergraduate grading	
Exams (4)	500 pts (70.4%)
Quizzes 10	50 pts (7.0%)
Discussion statements (3)	60 pts (8.5%)
Lab guides (3)	60 pts (8.5%)
Presentation (1)	40 pts (5.6%)
Total	**710 pts**

Graduate and Honors student grading	
Exams (4)	500 pts (66.6%)
Quizzes 10	50 pts (6.6%)
Discussion statements (3)	60 pts (8%)
Lab guides (3)	60 pts (8%)
Presentation (1)	40 pts (5.3%)
Research article (1)	40 pts (5.3%)
Total	**750 pts**

To determine your numerical course grade, add together your points earned and divide by the total number of points that could be earned.

Attendance:
Attendance will be monitored daily. Since exams will be based primarily on material covered in the lectures and labs/discussion (which you can't make up), you are more likely to do well in this course if you come to lecture and discussion sessions each week.

NOTE: The course syllabus, lecture material, study guides, and discussion materials will be available on Blackboard. You will be responsible for printing a hardcopy of the lecture notes and the articles that will be covered during the discussion period.

Tentative Lecture Schedule:

Date	Day	Topic		Reading
1/11	M	Combined introduction to lecture and lab	Syllabus	
1/13	W	What is development? History of development	Lecture 1	Ch 1
1/15	F	Experimental and genetic approaches to dev.	Lecture 2	Ch 1
1/18	M	*NO CLASS - MARTIN LUTHER KING JR HOLIDAY*		
1/20	W	Life cycles	Lecture 3	Ch 1
1/22	F	Evolution of developmental patterns	Lecture 4	Ch 1
1/25	M	Cell communication	Lecture 5	Ch 3
1/27	W	Signals in development (part I)	Lecture 6	Ch 3
1/29	F	Signals in development (part II)	Lecture 7	Ch 3
2/1	M	Genetics core of development	Lecture 8	Ch 2
2/3	W	Mechanisms of differential gene expression (I)	Lecture 9	Ch 2
2/5	F	Mechanisms of differential gene expression (II)	Lecture 10	Ch 2
2/8	M	Fertilization: beginning a new organism (I)	Lecture 11	Ch 4
2/10	**W**	**First Lecture/Lab Exam (Chs 1-3)**		
2/12	F	Fertilization: beginning a new organism (II)	Lecture 12	Ch 4
2/15	M	*NO CLASS – PRESIDENT'S DAY*		
2/17	W	Invertebrate development (roundworms)	Lecture 13	Ch 5
2/19	F	Invertebrate development (fruit flies)	Lecture 14	Ch 6
2/22	M	Axis specification in fruit flies	Lecture 15	Ch 6
2/24	W	Segmentation in fruit flies	Lecture 16	Ch 6
2/26	F	Invertebrate development (sea urchins)	Lecture 17	Ch 7
2/29	M	Vertebrate development of amphibians	Lecture 18	Ch 8
3/2	W	Vertebrate development of amphibians	Lecture 19	Ch 8
3/4	F	Vertebrate development of birds	Lecture 20	Ch 9
3/7	M	*NO CLASS – Spring Break --- Enjoy!*		
3/9	W	*NO CLASS – Spring Break --- Enjoy!*		
3/11	F	*NO CLASS – Spring Break --- Enjoy!*		
3/14	M	Vertebrate development of mammals	Lecture 21	Ch 9
3/16	**W**	**Second Lecture/Lab Exam (Chs 4-9)**		
3/18	F	Emergence of the ectoderm: CNS & epidermis (I)	Lecture 22	Ch 10
3/21	M	Emergence of the ectoderm: CNS & epidermis (II)	Lecture 23	Ch 10
3/23	W	Ectoderm/Neural crest cells	Lecture 23/24	Ch 10/11
3/25	F	*NO CLASS--Spring Break –Enjoy!*		
3/28	M	Neural crest cells and axonal specificity (I)	Lecture 24	Ch 11
3/30	W	Neural crest cells and axonal specificity (II)	Lecture 25	Ch 11
4/1	F	Paraxial and intermediate (I)	Lecture 26	Ch 12
4/4	M	Paraxial and intermediate (II)	Lecture 27	Ch 12
4/6	W	Lateral plate mesoderm and endoderm (I)	Lecture 28	Ch 13
4/8	F	Lateral plate mesoderm and endoderm (II)	Lecture 29	Ch 13
4/11	M	Development of the tetrapod limb (I)	Lecture 30	Ch 14
4/13	W	Development of the tetrapod limb (II)	Lecture 31	Ch 14
4/15	**F**	**Third Lecture/Lab Exam (Chs 10-14)**		
4/18	M	Sex determination	Lecture 32	Ch 15

4/20	W	Sex determination	Lecture 33	Ch 15
4/22	F	Regeneration and aging	Lecture 34	Ch 16 (pg 568-587)
4/25	M	Environmental regulation of animal development	Lecture 35	Ch 18
4/27	W	Ecological developmental biology	Lecture 36	Ch 19
4/29	F	Dev mechanisms of evolutionary change (I)	Lecture 37	Ch 20
5/2	M	Dev mechanisms of evolutionary change (II)	Lecture 38	Ch 20
5/4	W	Catch up and review		
5/6	F	*No official class- Study Day*		
5/9	**M**	**Fourth Lecture/Lab Exam (Chs 15-20; 1:15-3:15 pm)**		

Biology 355/755 -- Developmental Biology Lab/Discussions
Tentative Syllabus Spring 2015

General Notes:

    This laboratory is designed to emphasize topics discussed in the lecture portion of the course through debates, wet labs, discussion of primary literature, and videos. The laboratory portion will account for ~30% of the total grade. To do well in this course, you must be organized and well prepared. Before coming to the lab, read each exercise and/or article carefully and make certain that it is understood. We will use the first part of the semester to discuss techniques used by developmental biologists and "debate" important bioethical questions. The second part of the semester will be used to observe different stages of development in various developmental model organisms. The third part of the semester will consist of a developmental biology journal club where each student will be required to prepare a PowerPoint presentation of a peer-reviewed research publication in the area of developmental biology. In addition, each student will be responsible for an oral presentation of the material and then leading a discussion section after the presentation of the paper which will include the primary goals, methods, major findings, and overall significance of the work. The talk with discussion should be no more than 15 minutes.

    Finally, if you miss a lab/discussion, you will not be able to make it up at a later date. Therefore, it is your responsibility to obtain the information from another student. Attendance will be taken at the beginning of lab.

Date	Tentative lab schedule	Quiz #	Bioethics material
1/11	*NO LAB*		
1/18	*NO CLASS- MARTIN LUTHER KING JR HOLIDAY*		
1/25	Discussion 1: When does human life begin?	1	Unit 1 (Chp 1 & 2)
2/1	Discussion or Wet lab: TBA	2	
2/8	Discussion or Wet lab: TBA		
2/15	*NO CLASS – Presidents' Day*		
2/22	Wet lab: *Drosophila* embryo and larval development (TEMP213)	3	
2/29	Wet lab: Analyze frog development slides (TEMP 213)	4	
3/7	*NO CLASS -- SPRING BREAK*		
3/14	Wet lab: Analyze mouse post-implantation embryo development (TEMP213)		
3/21	Journal Club	5	
3/28	Journal Club	6	
4/4	Journal Club	7	
4/11	Journal Club	8	

4/18	Journal Club		
4/25	Journal Club	9	
5/2	Journal Club	10	

Departmental Web Page:
Biology majors should access the departmental web page (http://biology.missouristate.edu/) on a regular basis for announcements and seminars.

University Policy Statement

Disability Accommodation Policy:
To request academic accommodations for a disability, contact the Director of the Disability Resource Center, Plaster Student Union, Suite 405, (417) 836-4192 or (417) 836-6792 (TTY), www.missouristate.edu/disability. Students are required to provide documentation of disability to the Disability Resource Center prior to receiving accommodations. The Disability Resource Center refers some types of accommodation requests to the Learning Diagnostic Clinic, which also provides diagnostic testing for learning and psychological disabilities. For information about testing, contact the Director of the Learning Diagnostic Clinic, (417) 836-4787, http://psychology.missouristate.edu/ldc.

Students who require assistance during an emergency evacuation must discuss their needs with their professors and the Disability Resource Center. If you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible.
For additional information students should contact the Disability Resource Center, 836-4192 (PSU 405), or Larry Combs, Interim Assistant Director of Public Safety and Transportation at 836-6576.

Academic Dishonesty:
Missouri State University is a community of scholars committed to developing educated persons who accept the responsibility to practice personal and academic integrity. You are responsible for knowing and following the university's student honor code, Student Academic Integrity Policies and Procedures, available at www.missouristate.edu/policy/academicintegritystudents.htm and also available at the Reserves Desk in Meyer Library. Any student participating in any form of academic dishonesty will be subject to sanctions as described in this policy.

Cheating, plagiarism, forgery, and ***classroom disruption*** are serious academic offenses and will be treated accordingly. ***Cheating*** is presenting others' work as your own and includes aiding others to cheat. ***Plagiarism*** is using others' ideas without citing the source, or submitting work aided so much by others that it is different from your own work.

Dropping a Class:
It is your responsibility to understand the University's procedure for dropping a class. If you stop attending this class but do not follow proper procedure for dropping the class, you will receive a failing grade and will also be financially obligated to pay for the class. For information about dropping a class or withdrawing from the university, contact the Office of the Registrar at 836-5520.

Cell Phone Policy:
As a member of the learning community, each student has a responsibility to other students who are members of the community. When cell phones or pagers ring and students respond in class or leave class to respond, it disrupts the class. Therefore, the Office of the Provost prohibits the use by students of cell phones, pagers, PDAs, or similar communication devices during scheduled classes. All such

devices must be turned off or put in a silent (vibrate) mode and ordinarily should not be taken out during class. Given the fact that these same communication devices are an integral part of the University's emergency notification system, an exception to this policy would occur when numerous devices activate simultaneously. When this occurs, students may consult their devices to determine if a university emergency exists. If that is not the case, the devices should be immediately returned to silent mode and put away. Other exceptions to this policy may be granted at the discretion of the instructor.

Sanctions for violation of this policy are determined by the instructor and may include dismissal from the class – see Class Disruption (http://www.missouristate.edu/recreg/classdis.html). In testing situations, use of cell phones or similar communication devices may lead also to a charge of academic dishonesty and additional sanctions under the *Student Academic Integrity Policies and Procedures* (http://www.missouristate.edu/academicintegrity/default.htm).
There are two appeal processes available to students. A sanction for class disruption may be appealed using the appeal process stated in the Class Disruption policy; however, a violation that involves a charge of academic dishonesty must be appealed using the process described in the *Student Academic Integrity Policies and Procedures*. Students have the right to continue attending class while an appeal is in progress.

Nondiscrimination Policy:
Missouri State University is an equal opportunity/affirmative action institution, and maintains a grievance procedure available to any person who believes he or she has been discriminated against. At all times, it is your right to address inquiries or concerns about possible discrimination to the Office for Equity and Diversity, Park Central Office Building, 117 Park Central Square, Suite 111, (417) 836-4252. Other types of concerns (i.e., concerns of an academic nature) should be discussed directly with your instructor and can also be brought to the attention of your instructor's Department Head. Please visit the OED website at www.missouristate.edu/equity/.

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Curricular Action Workflow 🔆 *designed by* Computer Services

Change Course Proposal Form

Submitted on 01/19/2016 by Ryan Udan (RyanUdan@MissouriState.edu).

*All fields require input
This proposal applies to:

- An existing COURSE

- An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

BIO755 Advanced Developmental Biology

Will this proposal need to be reviewed by CGEIP?   No   Yes

Will this proposal need to be reviewed by EPPC?   No   Yes

Current online catalog description:

BIO 755 Advanced Developmental Biology

Recommended Prerequisite: cell biology course. An in-depth study of the molecular and cellular mechanisms involved in the development of vertebrate, invertebrate, and plant systems. Lectures will emphasize fertilization, morphogenesis, differentiation, induction, regeneration, and neoplasia. Laboratory exercises will emphasize techniques utilized by developmental biologists. Review of current literature and poster presentations will be required. Cannot receive credit for both BIO 355 and BIO 755. 4(3-2) S

Revise the current online catalog description as needed: (Strikethrough all deletions and insert/bold new information. Any content that is copied and pasted will lose existing formatting; please review prior to submission.)

⤺ ⤻ B *I* S

BIO 755 Advanced Developmental Biology

~~Recommended Prerequisite: cell biology course. An in-depth study of the molecular and cellular mechanisms involved in the development of vertebrate, invertebrate, and plant systems. Lectures will emphasize fertilization, morphogenesis, differentiation, induction, regeneration, and neoplasia. Laboratory exercises will emphasize techniques utilized by developmental biologists. Review of current literature and poster presentations will be required. Cannot receive credit for both BIO 355 and BIO 755. 4(3-2) S~~

Recommended prerequisite: developmental biology course. This course delves deeper into topics introduced in Bio355/655, and will explore other subjects not previously covered. Topics discussed may include, but are not limited to, fertilization (how do sperm and eggs mature, and how does fertilization occur?), organ size determination (what controls the size and correct proportions of organs during development), organ/embryo patterning (how does an embryo know which side will become the left and which will become the right?), organogenesis (how is a branching pattern created in developing blood vessels?), ecological developmental biology (how does climate change affect development of an organism?), and evolutionary developmental biology (how do cavefish develop without eyes, despite their eye bearing ancestors?).

What is changing? Check all boxes that apply.

Course Code	Course Number (Check Availability)	Title Prerequisite
Credit Hours/Contact Hours	Periodicity	Description

Reason for proposed change

The original Bio355 and Bio755 courses were previously offered as a combined undergraduate and graduate course. Because the graduate college has implemented the change that 700 level courses cannot be offered concurrently with undergraduate courses, 755 will be offered as a separate course with more advanced content. The course description has changed to emphasize the advanced content. The credit and contact hours have changed because the revised course will not have a laboratory.

Does this change affect course assessment?   No   Yes

Explain.

In Bio355/655, most questions are multiple choice recall with some analysis/synthesis/application questions. 1/5 of the questions are short answer. Test will incorporate a higher proportion of questions that are at the analysis/synthesis/application level, and mostly short answer responses.

How did you determine the need for this change? Check all boxes that apply or specify other.

Routine or annual review/assessment of curriculum	Faculty Input	Student Input
Accreditation/certification compliance	Review of catalog information	

Other (be specific): According to the graduate college, 700-level courses can no longer be taught with undergraduate classes in parallel.

Check if this is a non-substantive change.

What is the date that this course change was approved by departmental or program faculty? (MM/DD/YYYY)   01/19/2016

Current Status:

Grad Council Review

Proposal Progress:

01/20/2016 - Submitted by Department Head (S Mathis)
01/21/2016 - Reviewed by Dean (Tamera Jahnke)

Review Comments:

01/20/2016 - Department Head Review - S Mathis - The course instructor, Dr. Udan, is a new Biology faculty member whose expertise is in Developmental Biology. We anticipate that there will be sufficient student interest to merit offering the advanced course because of its potential importance to biomedical career opportunities and because of the relatively low number of 700-level course offerings in Biology.

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$\cancel{4}$ (22)

Curricular Action Workflow ⑥ *designed by* Computer Services

Missouri State > Computer Services - MIS > Curricular Action Workflow > CAW - Delete Course Proposal Form

Delete Course Proposal Form

Submitted on 01/26/2016 by Kenneth Vollmar (Kenvollmar@missouristate.edu).

*All fields require input
This proposal applies to:

    ⊙   An existing COURSE

    ○   An existing REGULAR (e.g. permanent) SECTION of a variable content course.

Existing Course:

CSC101 Computers for Learning

Will this proposal need to be reviewed by CGEIP?   ⊙ No   ○ Yes

Will this proposal need to be reviewed by EPPC?   ⊙ No   ○ Yes

Online catalog description.

> Fundamental computer concepts including word processing spreadsheets, assessing information and the responsible use of information and technology. Course may be waived by proficiency exam. 2(1-2) F,S

Reason for proposed Deletion

CSC/CIS 101 was removed from GenEd in about 2013, CIS stopped offering the course after Spring 2014, and CSC stopped offering CSC 101 after Spring 2015. If there still are students for whom CSC/CIS 101 is a degree requirement, they can take CIS 200, the waiver exam, or transfer it from another university.

How did you determine the need for this change? Check all boxes that apply or specify other.

☑ Routine or annual review/assessment of curriculum   ☐   Faculty Input   ☐   Student Input

☐ Accreditation/certification compliance   ☐   Review of catalog information

☐ Other (be specific):

What is the date that this course change was approved by departmental or program faculty?   01/14/2016

Current Status:

College Council Review

Proposal Progress:

01/26/2016 - Submitted by Department Head (Kenneth Vollmar)

Review Comments:

No comments have been added to this proposal.

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Curricular Action Workflow ⑥ designed by Computer Services

New Course Proposal Form

Submitted on 01/27/2016 by Kenneth Vollmar (Kenvollmar@missouristate.edu).

*All fields require input

○ New COURSE

○ New REGULAR PERMANENT SECTION of an existing variable content course. If a new regular section of an existing variable topics course, enter the existing course number below

Course Code:

CSC

Course Number: (Check Availability)

615

Course Title:

Advanced Internet Programming

Will this proposal need to be reviewed by EPPC? ● No ○ Yes

Prerequisite/Co-requisite or enter 'None':

None

General Course Description: (Include any Pass/Not Pass grading restrictions, repeatable limits, limitation on course applicability, UG/GR parallel course, etc.)

Topics include HTML as a semantic language, advanced CSS techniques, the DOM event model, asynchronous JavaScript, user input validation, utilizing 3rd party APIs, authentication over HTTP and high performance site design (including request minification and compression). Security principles will be reinforced throughout the course. May be taught concurrently with CSC 515. Cannot receive credit for both CSC 515 and CSC 615.

Credit Hours: 3   Lecture Contact Hours: 3   Lab Contact Hours: 0

Note: If variable credit, enter the highest number and add to end of course description. (e.g. "Variable credit, may be taken 1-3 hours.")

Periodicity. Check all that apply.

☐   Fall   ☐   Fall (even-numbered years only)   ☐   Fall (odd-numbered years only)

Spring   Spring (even-numbered years only)   Spring (odd-numbered years only)

Summer   On Demand only

Complete Catalog Description:
CSC 615 Advanced Internet Programming
Prerequisite: None
Topics include HTML as a semantic language, advanced CSS techniques, the DOM event model, asynchronous JavaScript, user input validation, utilizing 3rd party APIs, authentication over HTTP and high performance site design (including request minification and compression). Security principles will be reinforced throughout the course. May be taught concurrently with CSC 515. Cannot receive credit for both CSC 515 and CSC 615.
Credit hours: 3 Lecture contact hours: 3 Lab contact hours: 0
Typically offered: Spring

Include sample syllabus (list topics, course goals.) Use text box OR upload only file types of PDF, DOC or DOCX.

Attached

Purpose of Course

This elective course enables students to learn and practice techniques useful for professional employment in the commercial web development field.

Relationship to Other Departments

None

Is there a graduate/undergraduate parallel course to this one?   No   Yes

Enter parallel course number
CSC515 Advanced Internet Programming

How do these classes differ?
CSC 615 will have additional and separate assignments corresponding to expected additional depth of subject understanding.

New Course Resource Information

Anticipated Average Enrollment per section:	15	Maximum Enrollment Limit per section:	30
Anticipated Average Enrollment per semester:	15	Maximum Enrollment Limit per semester:	30
Anticipated Average Enrollment per year:	15	Maximum Enrollment Limit per year:	30
Faculty Load Assignment (equated hours):	3		

Is another course being deleted?   No   Yes

What will this course require in the way of:

Additional Library Holdings

(23)

None

Additional computer resources

None

Additional or remodeled facilities

None

Additional equipment or supplies

None

Additional travel funds

None

Additional faculty; general vs specialized

None

Additional faculty; regular vs per-course

Per-course

Other additional expenses

None

If additional faculty are not required, how will faculty be made available to teach this course?

Per-course faculty will be used to obtain current professional-level familiarity.

List names of current faculty qualified and available to teach this course

N/A

What is the anticipated source of students for this course?

MNAS students with concentration in Computer Science, potential future MS CS program

If from within the department, will students be taking this course in addition to or in place of other courses?

Addition

If from outside the department, which courses in other departments would most likely be affected?)

Not applicable

Other comments:

None

What is the date that this new course was approved by departmental or program faculty? (MM/DD/YYYY)   08/14/2015

Current Status:

Dean Review

Proposal Progress:

01/27/2016 - Submitted by Department Head (Kenneth Vollmar)

Review Comments:

No comments have been added to this proposal.

CSC 615 - Advanced Internet Programming

Course Policy Statement

Instructor: Chad Killingsworth
Office: No campus office
Phone: 417-773-0495
Email: chadkillingsworth@missouristate.edu
Office Hours: By appointment. I'm generally available by email during business hours.

Course Description: Topics include HTML as a semantic language, advanced CSS techniques, the DOM event model, asynchronous JavaScript, user input validation, utilizing 3rd party APIs, authentication over HTTP and high performance site design (including request minification and compression). Security principles will be reinforced throughout the course.

Learning Outcomes: Upon completion of the course, students should:
1. Understand how to semantically structure an HTML document.
2. Correctly describe and use CSS techniques such a floating and positioning.
3. Have an in-depth knowledge of JavaScript.
4. Be familiar with the JavaScript libraries of both jQuery and Closure-library.
5. Understand HTTP and know how to optimize requests.
6. Have a basic understanding of the OAuth protocol.

Textbooks:
- JavaScript - The Definitive Guide by David Flanagan

Required Resources: A publicly accessible space for developing web sites. The university will provide one for you. Visit http://cams.missouristate.edu/ to create a personal web space.

Attendance: Attendance is not recorded or included in course grading. It is to your advantage to attend class, and you are responsible for any information presented, announcements made, or assignments given in class. Late arrival and early departure is discouraged as rude to your fellow computer scientists.

Tentative Outline
1. HTML as a semantic language
2. Advanced CSS
3. JavaScript
4. jQuery, Google Closure Library, Google Closure Compiler
5. Single Page Application Frameworks
6. APIs - HTML5 and vendor provided
7. Dissecting HTTP
8. Authentication

Grading
Exams 1 and 2   10% each

Assignments and Exercises	40% (Drop 1 lowest)
Major Project	30%
Final Exam	10%

The assignment grading scheme drops the lowest score when determining the final score. It is expected that "ordinary" disasters such as accidentally misnamed files, network failures at the assignment due time, illness, etc. will be accommodated by these dropped grades. Additional extensions are not likely unless caused by "severe" disaster.

For the purposes of determining a grade for the course, the grades from exams, assignments, and projects will be combined as shown above. The course grade will be determined by totalling the score of all exams and assignments (minus lowest two assignment scores) and dividing it by the total possible score for the class. Letter grades will be assigned as follows:

- 90% and above is an A
- 80% and above is a B
- 70% and above is a C
- 60% and above is a D
- below 60% is an F

The numeric requirements for letter grades may be lowered to reflect a curve but will not be raised.

An "N" grade for this course cannot be assigned after the deadline in the academic calendar, (http://www.missouristate.edu/recreg/acad_cal.html)

Examinations: Exact dates for exams will be announced in class at least one week in advance. Missed exam(s) may be made up **only by prior arrangement** or exceptional circumstances.
Important Notes on Grading:

- The best way to improve your course grade is to submit assignments on time.
- The best way to reduce your course grade is to not turn in assignments or labs.
- The due date will be given with each assignment. The date on your email to me or the file's date in the upload directory, as applicable, will be the date used. The time of day will not be a factor.
- Late assignments will be penalized 10% for each calendar day after the due date.
- All assignments and lab exercises may be completed using MSU-provided equipment and software or software available by download.

Laptops, Tablets and Other Devices

Laptop computers, tablets or other devices are allowable for note-taking purposes only, provided that there are only minimal keyboard noises. If I believe that your device is in use for other than note-taking, or is more of a distraction than a benefit to you or to others, I will ask you to put it away. Laptops and PDAs must comply with the cell phone policy in their capability as a "communicative device."

Cell Phones

As a member of the learning community, each student has a responsibility to other students who are members of the community. When cell phones ring or receive other audible notifications and students respond in class or leave class to respond, it disrupts the class. Therefore, the Office of the Provost prohibits the use by students of cell phones, pagers, PDAs, or similar communication devices during scheduled classes. All such devices must be turned off or put in a silent (vibrate) mode and ordinarily should not be taken out during class. Given the fact that these same communication devices are an integral part of the University's emergency notification system, an exception to this policy would occur when numerous devices activate simultaneously. When this occurs, students may consult their devices to determine if a university emergency exists. If that is not the case, the devices should be immediately returned to silent mode and put away. Other exceptions to this policy may be granted at the discretion of the instructor.

University Policies

Academic Integrity

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Missouri State University is an equal opportunity/affirmative action institution, and maintains a grievance procedure available to any person who believes he or she has been discriminated against. At all times, it is your right to address inquiries or concerns about possible discrimination to the Office for Institutional Equity and Compliance, Park Central Office Building, 117 Park Central Square, Suite 111, (417) 836-4252. Other types of concerns (i.e., concerns of an academic nature) should be discussed directly with your instructor and can also be brought to the attention of your instructor's Department Head. Please visit the OED website at www.missouristate.edu/equity/.

Disability Accommodation

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Curricular Action Workflow ⓖ *designed by* Computer Services

New Course Proposal Form

Submitted on 01/26/2016 by Kenneth Vollmar (Kenvollmar@missouristate.edu).

*All fields require input

○ New COURSE

○ New REGULAR PERMANENT SECTION of an existing variable content course. If a new regular section of an existing variable topics course, enter the existing course number below

Course Code:
CSC

Course Number: (Check Availability)
655

Course Title:
Software Quality Assurance and Project Management

Will this proposal need to be reviewed by EPPC?   ⦿ No   ○ Yes

Prerequisite/Co-requisite or enter 'None':
None

General Course Description: (Include any Pass/Not Pass grading restrictions, repeatable limits, limitation on course applicability, UG/GR parallel course, etc.)

A broad coverage of software quality and testing including quality assurance, inspections and reviews, software validation and verification, various testing techniques, and related tools. Other topics are essential software project planning steps, cost estimation, productivity metrics, release and configuration management concepts. May be taught concurrently with CSC 455. Cannot receive credit for both CSC 455 and CSC 655.

| Credit Hours: | 3 | Lecture Contact Hours: | 3 | Lab Contact Hours: | 0 |

Note: If variable credit, enter the highest number and add to end of course description. (e.g. "Variable credit, may be taken 1-3 hours.")

Periodicity. Check all that apply.

☑ Fall   ☐ Fall (even-numbered years only)   ☐ Fall (odd-numbered years only)

	Spring		Spring (even-numbered years only)		Spring (odd-numbered years only)
	Summer		On Demand only		

Complete Catalog Description:
CSC 655 Software Quality Assurance and Project Management
Prerequisite: None
A broad coverage of software quality and testing including quality assurance, inspections and reviews, software validation and verification, various testing techniques, and related tools. Other topics are essential software project planning steps, cost estimation, productivity metrics, release and configuration management concepts. May be taught concurrently with CSC 455. Cannot receive credit for both CSC 455 and CSC 655.
Credit hours: 3 Lecture contact hours: 3 Lab contact hours: 0
Typically offered: Fall

Include sample syllabus (list topics, course goals.) Use text box OR upload only file types of PDF, DOC or DOCX.

See attached

Attached

Purpose of Course

Upon completion of this course, students will have the ability to plan and manage small to medium software development projects within a team setting, apply industry best practices, conduct effective and efficient inspections, design and implement comprehensive test plans, apply appropriate testing techniques, ensure test coverage and yield, use statistical techniques, and assess a software process to evaluate how effective it is at promoting overall software quality within a given scope, cost and time.

Relationship to Other Departments

CSC 655 focuses on technical aspects of software development. CIS courses focus on higher-level management and accounting.

Is there a graduate/undergraduate parallel course to this one?   No   Yes

Enter parallel course number
CSC455 Software Quality Assurance and Project Management

How do these classes differ?
CSC 655 will have additional and separate assignments corresponding to expected additional depth of subject understanding.

New Course Resource Information

Anticipated Average Enrollment per section:	5	Maximum Enrollment Limit per section:	25
Anticipated Average Enrollment per semester:	5	Maximum Enrollment Limit per semester:	25
Anticipated Average Enrollment per year:	5	Maximum Enrollment Limit per year:	25
Faculty Load Assignment (equated hours):	3		

Is another course being deleted?   No   Yes

(24)

What will this course require in the way of:

Additional library Holdings

None

Additional computer resources

None

Additional or remodeled facilities

None

Additional equipment or supplies

None

Additional travel funds

None

Additional faculty; general vs specialized

See below for explanation of faculty

Additional faculty; regular vs per-course

See below for explanation of faculty

Other additional expenses

None

If additional faculty are not required, how will faculty be made available to teach this course?

Estimated costs for the first five years are minimal in that the course changes require no resources and cause a low extent of increase in teaching load (expected to be within the workload of existing faculty plus the faculty hired by a search authorized for 2015-2016).

List names of current faculty qualified and available to teach this course

Dr. Razib Iqbal

What is the anticipated source of students for this course?

MNAS students with concentration in Computer Science, potential future MS CS program

If from within the department, will students be taking this course in addition to or in place of other courses?

Addition

If from outside the department, which courses in other departments would most likely be affected?)

Not applicable

Other comments:

None

What is the date that this new course was approved by departmental or program faculty? (MM/DD/YYYY)   08/25/2015

Current Status:

Dean Review

Proposal Progress:

01/26/2016 - Submitted by Department Head (Kenneth Vollmar)

Review Comments:

No comments have been added to this proposal.

follow your
PASSION
find your
PLACE

Last Modified: 07/17/2015   •   Disclaimer | Accessibility | EO/AA/M/F/Veterans/Disability
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Computer Science Department

Missouri State.

Course Code-Number: CSC-455 / CSC-655

Course Name: Software Quality Assurance and Project Management

     Pre-requisite: CSC 232

     Credit Hours: 3

     Periodicity: Fall

     Catalog Description:

A broad coverage of software quality and testing including quality assurance, inspections and reviews, software validation and verification, various testing techniques, and related tools. Other topics are essential software project planning steps, cost estimation, productivity metrics, release and configuration management concepts. May be taught concurrently with CSC 655. Cannot receive credit for both CSC 455 and CSC 655.
Credit hours: 3
Lecture contact hours: 3
Lab contact hours: 0
Typically offered: Fall

- **Purpose of the course:**

  Upon completion of this course, students will have the ability to plan and manage small to medium software development projects within a team setting, apply industry best practices, conduct effective and efficient inspections, design and implement comprehensive test plans, apply appropriate testing techniques, ensure test coverage and yield, use statistical techniques, and assess a software process to evaluate how effective it is at promoting overall software quality within a given scope, cost and time.

- **method for evaluating student performance:**

  Case studies of real industrial projects and applied techniques, project and assignments that include use of automated tools, testing of a wide variety of software, application of testing techniques, and comparison and analysis of software inspections.

- **Topics to be covered:**

Module 01: QA Introduction	Background, history, and basic concepts of software quality assurance and testing.
Module 02: Test Coverage	Unit testing, Logic testing, Syntax testing, Graph coverage, Control flow testing, Data flow testing, Domain testing.

Module 03: System Testing	Test categories, Functional testing, Integration testing, Regression testing, Ad hoc testing, Performance testing, Test design & planning, Test execution, Acceptance testing, Test automation.
Module 04: Software Project Management	Capability maturity model, Software team organization, People and organizational issues in software development, Size-Effort-Duration estimation, Metrics & measurements, Quality standards, Project tracking, Software contracts and Intellectual Property.

- **Prescribed Textbooks:**

1. Software Testing & Quality Assurance: Theory and Practice, Naik & Tripathy, ISBN-10: 0471789119, 2008

2. Applied Software Project Management, Stellman & Greene, ISBN 10:0-596-00948-8, 2005

Grade Weighting:

Assignments (six, individual)	25%	*(Drop one of the assignments)*
Projects (three, group)	25%	
Biweekly "checkup"	30%	*(Every 2nd Fri., all questions supplied in adv.)*
Midterm exam	10%	
Final exam	10%	

Attendance: Attendance is not recorded. Attendance is expected at exams (announced one week in advance) and Biweekly "checkup" (every 2nd Friday beginning Aug. 28). In any event you are responsible for any information presented and announcements made in class. Late arrival and early departure is discouraged as rude to your fellow computer scientists.

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Learning Diagnostic Clinic, which also provides diagnostic testing for learning and psychological disabilities. For information about testing, contact the Director of the Learning Diagnostic Clinic, (417) 836-4787, http://psychology.missouristate.edu/ldc.

Emergency Response
At the first class meeting, students should become familiar with a basic emergency response plan through a dialogue with the instructor that includes a review and awareness of exits specific to the classroom and the location of evacuation centers for the building. Students with disabilities impacting mobility should discuss the approved accommodations for emergency situations and additional options when applicable with the instructor. For more information go to http://www.missouristate.edu/safetran/51597.htm and http://www.missouristate.edu/safetran/erp.htm.

Audio and video recording course activity: Students may make audio or video recordings of course activity. However, the redistribution of audio or video recordings from the course to individuals who are not students in the class is prohibited without the express permission of the faculty member and any of the students who are recorded.

Academic Integrity Policy: Missouri State University is a community of scholars committed to developing educated persons who accept the responsibility to practice personal and academic integrity. You are responsible for knowing and following the university's student honor code, *Student Academic Integrity Policies and Procedures*, available at www.missouristate.edu/policy/academicintegritystudents.htm and also available at the Reserves Desk in Meyer Library. Any student participating in any form of academic dishonesty will be subject to sanctions as described in this policy.

Any of the following acts constitute academic dishonesty:

> Cheating: refers to using or attempting to use unauthorized materials, information, or study aids in any academic exercise.
> Fabrication: refers to unauthorized falsification or invention of any information (including research data) or any citation in any academic exercise; "misconduct in research" refers to any violation of ethical guidelines for attributing credit and authorship in research endeavors, non-compliance with established research policies, or other violations of ethical research practice.
> Plagiarism: includes, but is not limited to, the use, by paraphrase or direct quotation, of the published or unpublished work or sections of a work of another person without full and clear acknowledgement. This includes any material copied directly or paraphrased from the Internet. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other

academic materials, including material taken from or ordered through the Internet.

Facilitating academic dishonesty: assisting or attempting to assist another to violate any provision of the Missouri State University Academic Integrity Policy, whether or not that action is associated with any particular course.

Exchange of answers or code during an assignment or test will be considered to be cheating and plagiarism. Instructor reserves the right to use software analysis tools to detect plagiarism in source code.

The consequence to all parties for the first offence will be zero credit for the test/assignment, and for the second offence a failing grade with designation of academic dishonesty.

No grade-related sanction may be imposed until a student admits misconduct and/or forgoes appeal rights, or is found in violation by the Academic Integrity Council. Each student should carefully review the Student Academic Integrity Policies and Procedures: http://www.missouristate.edu/assets/provost/StudentAcademicIntegrity.pdf; also available at the Reserves Desk (Meyer Library), and in abbreviated form in the Missouri State University Undergraduate Catalog.

Policy on Use of Cell Phones and/or Other Communication Devices in Classes: As a member of the learning community, each student has a responsibility to other students who are members of the community. When cell phones or pagers ring and students respond in class or leave class to respond, it disrupts the class. Therefore, the Office of the Provost prohibits the use by students of cell phones, pagers, PDAs, or similar communication devices during scheduled classes. All such devices must be turned off or put in a silent (vibrate) mode and ordinarily should not be taken out during class. Given the fact that these same communication devices are an integral part of the University's emergency notification system, an exception to this policy would occur when numerous devices activate simultaneously. When this occurs, students may consult their devices to determine if a university emergency exists. If that is not the case, the devices should be immediately returned to silent mode and put away. Other exceptions to this policy may be granted at the discretion of the instructor.

(Annotation on Cell Phone Policy for Dr. Ken Vollmar's course)
It is allowable to leave the room in an unobtrusive manner in response to a non-audible "ring." However, audible ringtones or overexcited leaping from the room will invoke the MSU policy as stated above.

Electronic device policy: Laptop computers, smartphones, etc., will generally NOT be allowed. If it is critical to you to use a device for note-taking, please see me. Electronic devices must comply with the cell phone policy in their capability as a "communicative device."

Policy on Use of iPods, MP3 Players, or Other Entertainment Devices in Classes: Students have a responsibility to demonstrate respect and consideration of other students, as well as their instructors. The use of entertainment devices such as iPods, MP3 players, etc., is, therefore, strictly prohibited during classes. All such devices must be turned off and put away, and cannot be taken out during class.

Academic Regulations: Students should familiarize themselves with Academic Regulations by visiting the Student handbook online at http://www.MissouriState.edu/recreg/acreg.html.

Dropping a class: It is your responsibility to understand the University's procedure for dropping a class. If you stop attending this class but do not follow proper procedure for dropping the class, you will receive a failing grade and will also be financially obligated to pay for the class. For information about dropping a class or withdrawing from the university, contact the Office of the Registrar at 836-5520.

Important Dates: The Academic Calendar http://calendar.missouristate.edu/academic.asp contains information such as drop deadlines, etc. Important class events such as exams will be announced at least one week in advance. Due dates for assignments will be given with the assignment itself.

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Curricular Action Workflow   ⓖ *designed by* Computer Services

New Program Proposal Form

Submitted on 01/28/2016 by Douglas Gouzie (Douglasgouzie@missouristate.edu).

This form is to be used for internal Missouri State approval of any proposal for a new program involving two or more courses, including any new graduate program, new undergraduate major (whether comprehensive or non-comprehensive), new option within an existing program (whether graduate or undergraduate), new minor, new certificate, or new certification program.

New graduate programs, new undergraduate majors, and certificate programs involving more than 18 credit hours require approval by the CBHE as well as approval through the Missouri State curricular process. CBHE applications for such programs are processed through the Office of Institutional Research. All proposals for new programs requiring CBHE approval should progress through the Missouri State curricular process accompanied by a draft of the required CBHE documentation.

Department:

Geography, Geology, & Planning

Proposed Program Title:

Graduate Certificate in Environmental Monitoring and Sampling

Choose One:

- Major (Non-Comprehensive/Graduate Program)
- Comprehensive Major
- Option

- Minor
- Certificate
- Certification

- Academic Rules
- Other

Degree or Certificate Applicability:

GRCT - Graduate Certificate

General Education Courses Required:

Total Hours: 0

General Education Courses Recommended:

Total Hours: 0

Requirements (including Admission) and Limitations for Specific Degree/Program:

Courses should be selected in consultation with and approved by the program coordinator and
departmental Director of Graduate Studies to insure proper prerequisites are satisfied and that
duplication is avoided. A summary of planned course offerings is listed below. At least 3 hours of
700-level coursework must be included in each students' program of coursework.
Required 2 out of 3 courses:
GLG 680 Geochemistry
GLG 782 Contaminant Geochemistry
GLG 690 Applied Geophysics

Electives. Take 2 out of these 6 courses
GLG 647 Water Resources
GLG 672 Geohydrology
GLG 673 Engineering Geology
GRY 731 Environmental Assessment
CHM 760 Chemistry of Environmental System: Water and Land
GEO 770 Advanced Field and Laboratory Methods
Other courses approved by the program coordinator and the departmental Director of Graduate
Studies may be substituted for any of the above listed courses on a case-by-case basis. However, the
certificate program coordinator (in consultation with the departmental Director of Graduate Studies)
must approve the substitution prior to the student enrolling in a course.
Admission criteria
The Environmental Monitoring and Sampling Certificate program is open to all persons holding a BS,
BA, MS, or PhD degree. Students must, of course, satisfy all prerequisites for any courses they take in
the program; or they must obtain instructor approval to waive any prerequisites. Once admitted to the
program, the student must take a minimum of four courses as designated and approved by the
program director and must have an average cumulative grade point average of 3.00 or better to
receive the certificate.

Total Hours: 12

Courses Required in Department:

Required 2 out of 3 courses:
GLG 680 Geochemistry
GLG 782 Contaminant Geochemistry
GLG 690 Applied Geophysics

Total Hours: 6-12

Courses Required in Other Departments:

Electives. Take 2 out of these 6 courses
GLG 647 Water Resources
GLG 672 Geohydrology
GLG 673 Engineering Geology
GRY 731 Environmental Assessment
CHM 760 Chemistry of Environmental Systems: Water and Land
GEO 770 Advanced Field and Laboratory Methods

Total Hours: 0-3

Prerequisites for Required Courses:

none required

Recommended Electives in Department:

Total Hours: 0

Recommended Electives in Other Departments:

Total Hours: 0

Limitations on Electives:

none known

Please attach the following documents: (only one file may be attached for each requirement; accepts file types of PDF, DOC or DOCX)

1. Statement of Rationale: Attached

2. Estimated costs for first five years: Attached

3. Complete catalog description (including new courses and course changes pending approval): Attached

4. CBHE Application (If applicable): Not Attached

*Note: For new programs requiring CBHE approval, CBHE forms NP, PS, and PG will satisfy #1 and CBHE form FP will satisfy #2.

What is the date that this new program was approved by departmental or program faculty? (MM/DD/YYYY)

11/06/2015

Current Status:

Dean Review

Proposal Progress:

01/28/2016 - Submitted by Department Head (Toby Dogwiler)

Review Comments:

01/28/2016 - Department Head Review - Toby Dogwiler - This proposal was heard at the Graduate Curriculum Screening Committee Meeting yesterday (1/27/2016). They asked that GGP withdraw the proposal, make a few minor corrections regarding course names and delete some typos, and then resubmit the corrected proposal ASAP. The faculty member who initiated the proposal is traveling out-of-state and had trouble with the revision and ended up creating a new copy (this copy). The issues have all been corrected (i.e., correct course titles for GLG 782 and CHM 760; and deletion of erroneously included Recommended Electives in Department and other Departments). Please note that CHM 760 still has the wrong course title in the attached rationale document. Because the initiator is out of contact I am sending the proposal forward anyway. I assumed this would not be an issue. The course title is correct every where else.

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PLACE