

# New Course Proposal Form

**Submitted on 01/25/2024 by Ajay Katangur ([AjayKatangur@MissouriState.edu](mailto:AjayKatangur@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](#))

534

Course Title:

Big Data Analytics

Will this course become part of a program?  No  Yes (A corresponding program change form must be submitted)

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

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

Prerequisite/Co-requisite or enter 'None':

CSC 232, CSC 330, and CSC 335

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

A study of tools, techniques, and frameworks for extracting useful information from large data. Study of machine learning algorithms for data analytics. Visual display of results.

*179/30000 character limit.*

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 534 Big Data Analytics

Prerequisite: CSC 232, CSC 330, and CSC 335

A study of tools, techniques, and frameworks for extracting useful information from large data. Study of machine learning algorithms for data analytics. Visual display of results.

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 DOC or DOCX.

0/30000 character limit.

Attached [View Attachment](#)

**Purpose of Course**

Serves as a required course for the students in the newly proposed BS in Data Science program. It can also be taken by other computer science students as an elective.

166/30000 character limit.

**Relationship to Other Departments**

None

4/30000 character limit.

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

Enter parallel course number

nullnull null

How do these classes differ?

0/30000 character limit.

**New Course Resource Information**

Anticipated Average Enrollment per section:

Maximum Enrollment Limit per section:

Anticipated Average Enrollment per semester:

Maximum Enrollment Limit per semester:

Anticipated Average Enrollment per year:

Maximum Enrollment Limit per year:

Faculty Load Assignment (equated hours):

Is another course being deleted?  No  Yes

Select course number and title being deleted.

nullnull null

**What will this course require in the way of:**

Additional library Holdings

None

4/30000 character limit.

Additional computer resources

None

*4/30000 character limit.*

**Additional or remodeled facilities**

None

*4/30000 character limit.*

**Additional equipment or supplies**

None

*4/30000 character limit.*

**Additional travel funds**

None

*4/30000 character limit.*

**Additional faculty; general vs specialized**

None

*4/30000 character limit.*

**Additional faculty; regular vs per-course**

None

*4/30000 character limit.*

Other additional expenses

None

*4/30000 character limit.*

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

We are making a new hire in Fall 2024, enabling us to cover this course without additional faculty.

*99/30000 character limit.*

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

Jamil Saquer  
Mohammed Belkhouche  
Rahul Dubey  
Mukulika Ghosh

*59/30000 character limit.*

What is the anticipated source of students for this course?

Undergraduate Students

*22/30000 character limit.*

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

Serves as a required course for the students in the newly proposed BS in Data Science program. It can also be taken by other computer science students as an elective to satisfy program requirements.

*199/30000 character limit.*

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

None

4/30000 character limit.

Other comments:

None

4/30000 character limit.

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

12/08/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/29/2024 - Submitted by Department Head (Ajay Katangur)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

Copy As New Proposal

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**MAKE YOUR MENT.**

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Last Updated: 2024-01-25 11:03:25 [Contact Information](#)

**COURSE POLICY STATEMENT AND SYLLABUS**  
**CSC 534 – Big Data Analytics**

**INSTRUCTOR:** Mo Mirbagheritabatabaei, Jamil Saquer, Lloyd Smith

**OFFICE:** 211B Cheek Hall

**Phone:** (417)836-8745

**LECTURES:** T, R 9:30 am – 10:45 am, Cheek Hall 151

**OFFICE HOURS:** MWF 10:05 am - 11:05 am, R 11:00 am – 12:00 pm

**PREREQUISITE:** CSC 232 and 330, and 335

**REQUIRED TEXTBOOK:** Spark The Definitive Guide: Big Data Processing Made Simple, by Bill Chambers and Matei Zaharia, O'Reilly Media, 2018. ISBN: 978-1491912218

**OPTIONAL TEXTBOOK:** Scala for the Impatient, 2nd Edition, by Cay S. Horstmann, Addison-Wesley Professional, 2016. ISBN: 978-0134540566

**CATALOG DESCRIPTION:** A study of tools, techniques, and frameworks for extracting useful information from large data. Study of machine learning algorithms for data analytics. Visual display of results.

**MARKS DISTRIBUTION:**

Quizzes	20%
Exams	30%
Homework Assignments	30%
Project	20%

**GRADING SCALE:** Letter grades will be determined as follows:

$90\% \leq A$   
 $80\% \leq B < 90\%$   
 $70\% \leq C < 80\%$   
 $60\% \leq D < 70\%$   
 $F < 60\%$

**Project:** Students will work in groups on a big data project of their choice. You will use big data tools to analyze a non-trivial real-world dataset for your project. You will write a report and present your project during the last week of the semester. Project timelines are as follows:

**ATTENDANCE POLICY:** Students should make every effort not to miss class. There is always a possibility of missing important information if you skip class. Furthermore, students who skip class usually do not do as well as those who do not. Students are responsible for everything covered and announced during lectures.

**LATE HOMEWORK:** Homework is always due at the beginning of class on the due date. Homework that is late will be penalized as follows: 1 day late 10% penalty; 2 days late 20% penalty; after 2 days no credit will be given for a late assignment. Homework that is habitually late will not be accepted.

**ATTENDANCE POLICY:** By the end of the course, students will

1. Gain practical experience in using Scala for big data processing tasks, with a focus on processing data, and analyzing large datasets efficiently (**Scala Utilization**).
2. Be able to identify and solve challenges associated with processing various typical and classical queries over big data (**Query Processing**).
3. Gain the ability to formulate and model big data problems, allowing them to develop creative solutions and write the necessary code for analyzing large datasets efficiently (**Problem Formulation and Modeling**).
4. Have an understanding of big data technologies, with a specific focus on Spark. They will be able to leverage these technologies to process and analyze large datasets efficiently (**Big Data Technology**).
5. Apply practical and straightforward approaches to address real-world challenges in big data analytics (**Practical Application**).

Tentative Schedule (Subject to Change)

Week	Lecture	Textbook Reading
1	Intro to Spark	Ch 1
2-4	Scala	Scala: Ch 1 – 4 & 12
5	How Spark Runs on a Cluster	Ch 15
6	Structured APIs – Aggregation	Ch 7
7	Structured APIs – Joins	Ch 8
8	Spark SQL	Ch 10
9	Resilient Distributed Datasets <b>Midterm Exam</b>	Ch 12
10	Resilient Distributed Datasets	Ch 13
11 - 12	Stream Processing	Ch 20 & 21
13 – 14	Advanced Analytics and Machine Learning	Ch 24 – 27
15	Graph Analytics	Ch 30
16	Project Presentation	
Final Exams Week	<b>Final Exam</b>	

**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 academic integrity policy plus additional more-specific policies for each class. The University policy, formally known as the “Student Academic Integrity



Policies and Procedures” is available online at [http://www.missouristate.edu/policy/Op3\\_01\\_AcademicIntegrityStudents.htm](http://www.missouristate.edu/policy/Op3_01_AcademicIntegrityStudents.htm) and also 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. Examples of sanctions include:

- Denying credit on an assignment and/or examination
- Requiring additional assignments and/or examinations
- Lowering the course grade
- Receiving a failing course grade (F)
- Receiving a failing course grade of XF, which indicates the failing grade was due to academic dishonesty. This grade will remain on the transcript for at least one year.
- The instructor of this course may send written notification of any sanctions imposed to the Academic Integrity Council, so that repeat offenders may be detected.
- In addition to these sanctions, the instructor of this course may request that the Academic Integrity Council impose more severe sanctions, up to and including expulsion from the University.

**Disability Accommodation Policy:** If you are a student with a disability and anticipate barriers related to this course, it is important to request accommodations and establish an accommodation plan with the University. Please contact the Disability Resource Center (DRC) (<https://www.missouristate.edu/disability/>), Meyer Library, Suite 111, 417-836-4192, to initiate the process to establish your accommodation plan. The DRC will work with you to establish your accommodation plan, or it may refer you to other appropriate resources based on the nature of your disability. In order to prepare an accommodation plan, the University usually requires that students provide documentation relating to their disability. Please be prepared to provide such documentation if requested. Once a University accommodation plan is established, you may notify the class instructor of approved accommodations. If you wish to utilize your accommodation plan, it is suggested that you do so in a timely manner, preferably within the first two weeks of class. Early notification to the instructor allows for full benefit of the accommodations identified in the plan. Instructors will not receive the accommodation plan until you provide that plan, and are not required to apply accommodations retroactively.

**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 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/](http://www.missouristate.edu/equity/).

**Computer Use:** The Missouri State University Disciplinary Code prohibits students from unauthorized access or use of University computers, computer systems, or networks. The Computer Science Department feels that any student who uses any ID or password other than that which has been officially assigned to him or her, or who accesses unauthorized files, is in violation of the Disciplinary Code. Any student found guilty of this violation may have all access rights to University computers removed immediately and continue to have their access rights removed for the following semester. A repeat offense may cause permanent revocation of all access rights. The University may take disciplinary action in addition to those mentioned above.

**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. 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/registrar/catalog/classdis.html>).

In testing situations, use of cell phones or similar communication devices may lead to a charge of academic dishonesty and additional sanctions under the [Student Academic Integrity Policies and Procedures](#).

**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. All instructors are provided this information specific to their classroom and/or lab assignments in an e-mail prior to the beginning of the fall semester from the Office of the Provost and Safety and Transportation. 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>.

**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.

**Audio and Video Recording Course Activity:** Audio or video recording of any course activity is prohibited except in rare circumstances and with prior arrangements with the instructor. Distribution or sale of recordings of any course materials is prohibited without the written permission of the instructor and other students who are recorded. Distribution without permission is a violation of copyright law and the Code of Student Rights and Responsibilities (Sections 4.6, 4.8, 4.9).

Posting any course materials online is prohibited. Moreover, posting a question online related to the course or a course activity is prohibited.

**Mental Health and Stress Management:** As a student you may experience a range of personal issues that can impede learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. You can learn more about free and confidential Missouri State University Counseling Center services available to assist you at <https://counselingcenter.missouristate.edu/>.

**Religious Accommodation:** The University may provide a reasonable accommodation based on a person's sincerely held religious belief. In making this determination, the University reviews a variety of factors, including whether the accommodation would create an undue hardship. The accommodation request imposes responsibilities and obligations on both the individual requesting the accommodation and the University. Students who expect to miss classes, examinations, or other assignments as a consequence of their sincerely held religious belief shall be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a Request for Religious Accommodation Form to the instructor by the end of the third week of a full semester course or the end of the second week of a half semester course.

# New Course Proposal Form

**Submitted on 01/25/2024 by Ajay Katangur ([AjayKatangur@MissouriState.edu](mailto:AjayKatangur@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](#))

537

Course Title:

Deep Learning

Will this course become part of a program?  No  Yes (A corresponding program change form must be submitted)

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

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

Prerequisite/Co-requisite or enter 'None':

CSC 232 and CSC 330, MTH 261 and MTH 333

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

A study of neural networks, including backpropagation, loss functions, gradient descent, convolutional neural networks, recurrent neural networks, regularization techniques, network architectures, transfer learning, generative models.

*234/30000 character limit.*

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 537 Deep Learning

Prerequisite: CSC 232 and CSC 330, MTH 261 and MTH 333

A study of neural networks, including backpropagation, loss functions, gradient descent, convolutional neural networks, recurrent neural networks, regularization techniques, network architectures, transfer learning, generative models.

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 DOC or DOCX.

0/30000 character limit.

Attached [View Attachment](#)

**Purpose of Course**

Serves as a required course for the students in the newly proposed BS in Data Science program. It can also be taken by other computer science students as an elective.

166/30000 character limit.

**Relationship to Other Departments**

None

4/30000 character limit.

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

Enter parallel course number

nullnull null

How do these classes differ?

0/30000 character limit.

**New Course Resource Information**

Anticipated Average Enrollment per section:

Maximum Enrollment Limit per section:

Anticipated Average Enrollment per semester:

Maximum Enrollment Limit per semester:

Anticipated Average Enrollment per year:

Maximum Enrollment Limit per year:

Faculty Load Assignment (equated hours):

Is another course being deleted?  No  Yes

Select course number and title being deleted.

nullnull null

**What will this course require in the way of:**

Additional library Holdings

None

4/30000 character limit.

Additional computer resources

None

*4/30000 character limit.*

**Additional or remodeled facilities**

None

*4/30000 character limit.*

**Additional equipment or supplies**

None

*4/30000 character limit.*

**Additional travel funds**

None

*4/30000 character limit.*

**Additional faculty; general vs specialized**

None

*4/30000 character limit.*

**Additional faculty; regular vs per-course**

None

*4/30000 character limit.*

Other additional expenses

None

*4/30000 character limit.*

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

We are making a new hire in Fall 2024, enabling us to cover this course without additional faculty.

*99/30000 character limit.*

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

Jamil Saquer  
Mohammed Belkhouche  
Rahul Dubey  
Mukulika Ghosh

*59/30000 character limit.*

What is the anticipated source of students for this course?

Undergraduate Students

*22/30000 character limit.*

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

Serves as a required course for the students in the newly proposed BS in Data Science program. It can also be taken by other computer science students as an elective to satisfy program requirements.

*198/30000 character limit.*

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

None

4/30000 character limit.

Other comments:

None

4/30000 character limit.

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

12/08/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/29/2024 - Submitted by Department Head (Ajay Katangur)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

Copy As New Proposal

**MAKE YOUR MENT.**

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Last Updated: 2024-01-25 11:03:25 [Contact Information](#)



## COURSE POLICY STATEMENT AND SYLLABUS CSC 537 – Deep Learning

**INSTRUCTOR:** Mukulika Ghosh, Mohammed Y. Belkhouche, Siming Liu, Jamil Saquer, Lloyd Smith

**OFFICE:** 211B Cheek Hall

**Phone:** (417)836-8745

**LECTURES:** T, R 9:30 am – 10:45 am, Cheek Hall 151

**OFFICE HOURS:** MWF 10:05 am - 11:05 am, R 11:00 am – 12:00 pm

**PREREQUISITE:** CSC 232 and 330, MTH 261 & 333

**REQUIRED TEXTBOOK:** Deep Learning with Python, Francois Chollet, Manning; 2nd Edition, December 21, 2021. ISBN: 978-1617296864.

**REFERENCE TEXTBOOK:** Ian Goodfellow, Yoshua Bengio and Aaron Courville, MIT Press; 2016. ISBN: 978-0262035613 Online PDF version:

<http://www.deeplearningbook.org>

**CATALOG DESCRIPTION:** A study of neural networks, including backpropagation, loss functions, gradient descent, convolutional neural networks, recurrent neural networks, regularization techniques, network architectures, transfer learning, generative models.

### MARKS DISTRIBUTION:

Quizzes	20%
Exams	30%
Homework Assignments	30%
Project	20%

**GRADING SCALE:** Letter grades will be determined as follows:

$90\% \leq A$

$80\% \leq B < 90\%$

$70\% \leq C < 80\%$

$60\% \leq D < 70\%$

$F < 60\%$

**Project:** Students will work in groups on a big data project of their choice. You will use big data tools to analyze a non-trivial real-world dataset for your project. You will write a report and present your project during the last week of the semester. Project timelines are as follows:

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**LATE HOMEWORK:** Homework is always due at the beginning of class on the due date. Homework that is late will be penalized as follows: 1 day late 10% penalty; 2 days late 20% penalty; after 2 days no credit will be given for a late assignment. Homework that is habitually late will not be accepted.

**ATTENDANCE POLICY:** By the end of the course, students will

1. Gain knowledge on design of deep learning models and architectures focused on neural networks (NN).
2. Be able to review and compare notable applications and existing architectures such as convolutional neural networks (CNN) and recurrent neural networks (RNN)
3. Use deep learning tools to train, tune, and optimize deep learning models.

Tentative Schedule (Subject to Change)

Week	Lecture	Textbook Reading
1	Intro to Deep Learning (DL)	Ch 1
2	Mathematical Building Blocks of DL	Ch 2
3	Intro to Keras & TensorFlow	Ch 3
4	Getting Started with NN	Ch 4
5	Fundamentals of machine Learning (ML)	Ch 5
6	Keras: A Deep Dive <b>Exam 1</b>	Ch 7
7 – 8	Convolutional Neural Networks	Ch 8 – 9
9 – 12	Recurrent Neural Networks <b>Exam 2</b>	Ch 10 – 11.3
13	The Transformer Architecture	11.4 – 11.5
15 – 15	Generative Deep Learning	Ch 12
16	Project Presentation	
Final Exams Week	<b>Final Exam</b>	

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**Audio and Video Recording Course Activity:** Audio or video recording of any course activity is prohibited except in rare circumstances and with prior arrangements with the instructor. Distribution or sale of recordings of any course materials is prohibited without the written permission of the instructor and other students who are recorded. Distribution without permission is a violation of copyright law and the Code of Student Rights and Responsibilities (Sections 4.6, 4.8, 4.9).

Posting any course materials online is prohibited. Moreover, posting a question online related to the course or a course activity is prohibited.

**Mental Health and Stress Management:** As a student you may experience a range of personal issues that can impede learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. You can learn more about free and confidential Missouri State University Counseling Center services available to assist you at <https://counselingcenter.missouristate.edu/>.

**Religious Accommodation:** The University may provide a reasonable accommodation based on a person's sincerely held religious belief. In making this determination, the University reviews a variety of factors, including whether the accommodation would create an undue hardship. The accommodation request imposes responsibilities and obligations on both the individual requesting the accommodation and the University. Students who expect to miss classes, examinations, or other assignments as a consequence of their sincerely held religious belief shall be provided with a reasonable alternative opportunity to complete such academic responsibilities. It is the obligation of students to provide faculty with reasonable notice of the dates of religious observances on which they will be absent by submitting a Request for Religious Accommodation Form to the instructor by the end of the third week of a full semester course or the end of the second week of a half semester course.

# Change Program Proposal Form

**Submitted on 01/25/2024 by Ajay Katangur ([AjayKatangur@MissouriState.edu](mailto:AjayKatangur@MissouriState.edu)).**

**Department:**

Computer Science

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Computer Science/Software Development-BS

**Current Catalog Description:**

*(Either cut and paste present description from online catalog **OR** provide as an attachment below)*





Software Development Option (27-30 hours):

1. CSC 455(3).
2. Three additional hours from eligible CSC courses numbered 500 or higher excluding CSC 596. Courses not eligible: CSC 500, 505, and 510.
3. ECO 165(3); PSY 121(3); ENG 321(3). Each of these courses may also count toward General Education requirements.
4. One course from each group (at least one of the courses with a lab):
  - a. BIO 121(4)\*; BMS 110(3)\*; BMS 110 and 111(4)\*
  - b. CHM 116(4)\*; CHM 116 and 117(5); CHM 160(4)\*; CHM 160 and 161(5); GLG 110(4)\*, GLG 171(3)\*, GRY 135(4)\*, GRY 142(4)\*, PHY 123(4)\*, PHY 203(5)\*; AST 113(3)\*; AST 114(4)\*; AST 115(4)\*.
5. One course from: MKT 350(3), MGT 340(3), COM 315(3), PSY 305(3), PSY 481(3). Other courses may be acceptable with department approval.
6. Mathematics requirement: MTH 314(3) or MTH 315(3).

\*May 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>B</b> <i>I</i> 
<p>Software Development Option (27-30 hours):</p> <ol style="list-style-type: none"> <li>1. CSC 455(3).</li> <li>2. Three additional hours from eligible CSC courses numbered 500 or higher excluding CSC 596. Courses not eligible: CSC 500, 505, and 510.</li> <li>3. ECO 165(3); PSY 121(3); ENG 321(3). Each of these courses may also count toward General Education requirements.</li> <li>4. One course from each group (at least one of the courses with a lab):           <ol style="list-style-type: none"> <li>a. BIO 121(4)*; BMS 110(3)*; BMS 110 and 111(4)*</li> <li>b. CHM 116(4)*; CHM 116 and 117(5); CHM 160(4)*; CHM 160 and 161(5); <b>GLG 113 and 116(4)*</b>, <del>GLG 110(4)*</del>, <b>GLG 114(3)*</b>, <del>GLG 171(3)*</del>, GRY 135(4)*, <b>GRY 145 and GRY 146(4)*</b>; <del>GRY 142(4)*</del>, PHY 123(4)*, PHY 203(5)*; AST 113(3)*; AST 114(4)*; AST 115(4)*.</li> </ol> </li> <li>5. One course from: MKT 350(3), MGT 340(3), COM 315(3), PSY 305(3), PSY 481(3). Other courses may be acceptable with department approval.</li> <li>6. Mathematics requirement: MTH 314(3) or MTH 315(3).</li> </ol> <p>*May also count toward General Education requirements.</p>
POWERED BY TINYMCE 

Not Attached

Total Hours:

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)

- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

GLG 110(4) is changed to GLG 113 and GLG 116(4)  
 GLG 171(3) is changed to GLG 114(3)  
 GRY 142(4) is changed to GRY 145 and GRY 146(4)

**Reason for Proposed Change:**

THE SEES school has changed or modified these classes to the new ones. We are updating to reflect the those changes by SEES.

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

12/08/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/29/2024 - Submitted by Department Head (Ajay Katangur)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

Copy As New Proposal

**MAKE YOUR MENT.**

# New Interdisciplinary Program Proposal Form

**Submitted on 01/29/2024 by Ajay Katangur ([AjayKatangur@MissouriState.edu](mailto:AjayKatangur@MissouriState.edu)).**

This special form is to be used for internal Missouri State approval of a new Interdisciplinary program involving two or more academic departments/schools including graduate programs, undergraduate majors (comprehensive or non-comprehensive), minors, graduate certificates, undergraduate certificates.

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.

**Only select departments with at least 9 hours or at least 30% of total program hours.**

**Sponsoring Department (1): (responsible for administration and budget)**

Computer Science

**Sponsoring Department (2):**

Mathematics

**Sponsoring Department (3): (if applicable)**

**Sponsoring Department (4): (if applicable)**

**Proposed Program Title:**

Data Science

**Choose One:**

Major (Non-Comprehensive/Graduate Program)  Minor  Graduate Certificate



Comprehensive Major

Undergraduate Certificate

Master's Degree

**Select Degree Type (or Select Graduate Certificate or Undergraduate Certificate):**

BS - Bachelor of Science

**General Education Courses Required:**

None

Total Hours: 0

**General Education Courses Recommended:**

None

Total Hours: 0

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

University Admission Requirements

Total Hours: 0

**Prerequisites for Required Courses:**

Math Placement

**Recommended Electives:**

None

Total Hours: 0

**Limitations on Electives:**

None

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

1. Statement of Rationale: *Attached* [🔍 View Attachment](#)
2. Estimated costs for first five years: *Attached* [🔍 View Attachment](#)
3. Complete catalog description (including new courses and course changes pending approval): *Attached* [🔍 View Attachment](#)
4. Complete a new program application for the Missouri Department of Higher Education and Workforce Development (MDHEWD).

(NOTE: New Minors do not require this form. Certificates with 18 hours or less do not require this form. Originators may skip this step entirely for these types of new programs.)

- A. Use the templates to complete an MDHEWD application.  
[New Undergraduate Major \(or certificate with more than 18 hours\)](#) | [New Graduate Program \(Master's Specialist, or certificate with more than 18 hours\)](#) For new Doctoral Program contact Associate Provost Julie Masterson for MDHEWD forms and process.
- B. Upload and attach the completed MDHEWD application. *Attached* [🔍 View Attachment](#)

\* Contact Associate Provost Julie Masterson for assistance completing MDHEWD forms.

\*\* The Office of Institutional Research (IR) will submit these application forms to the state after the new program has been fully approved through the curricular process.

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

12/08/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/29/2024 - Submitted by Department Head (William Bray)

01/29/2024 - Submitted by Department Head (Ajay Katangur)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

## **Rationale for a B.S. program in Data Science**

In today's data-driven world, there is an extensive demand for professionals skilled in data science with demand trends projected to grow as more industries integrate data science methodologies into their operations. Data science has a significant impact on society by enabling better decision-making and innovation based on deep patterns in massive data sets. Data science skills are applicable in numerous fields such as healthcare, finance, technology, government, and retail. This versatility allows for a wide range of career opportunities nationally and locally. Within Springfield alone, the legal firm of Husch-Blackwell, FedEx, Amazon, O'Reilly, Cox and Mercy hospitals have growing data science units. The Bachelor of Science program in Data Science is designed to provide the fundamental computer science, mathematical, and statistical knowledge and skills for graduates to make significant contributions in the workforce as well as lay the groundwork for graduate studies.

## **BS in Data Science**

### **Estimated Costs for first five years**

\$0. We have already been offering these classes. The only new classes we are proposing are CSC 537 Deep Learning and CSC 534 Big Data Analytics. We have faculty in the CS and Math departments to cover these classes.

Complete Catalog Description

Data Science (Non-Comprehensive)  
Bachelor of Science

**Major requirements (72 hours):**

1. Major Core (60 credit hours):
  - a. Computer Science Courses: CSC 130 (3), CSC 131 (4), CSC 232 (4), CSC 325 (3), CSC 330 (3), CSC 335 (3), CSC 535 (3), CSC 534 (3), CSC 537 (3).
  - b. Mathematics Courses: MTH 261 (5), MTH 280 (5), MTH 314 (3) or MTH 315 (3), MTH 333 (3), MTH 302 (3), MTH 345 (3) or MTH 540 (3), MTH 547 (3).
  - c. Other Courses: PHI 332 (3), COM 315(3)
2. Optional Program Courses: Any four classes for a total of 12 credit hours from the following:
  - a. CSC 399 (3), CSC 450 (4), CSC 526 (3), CSC 538 (3), CSC 540 (3), CSC 545 (3), CSC 587 (3), CSC 596 (3), MTH 541 (3), MTH 543 (3), MTH 545 (3), MTH 546 (3), MTH 548 (3), MTH 580 (3), MTH 596.
3. Public Affairs Capstone Experience will be fulfilled by completion of CSC 330 (3), and CSC 335 (3).

**University level requirements:**

1. [General Education Program and Requirements](#)
2. [General Baccalaureate Degree Requirements](#)



# DEPARTMENT OF HIGHER EDUCATION & WORKFORCE DEVELOPMENT

PUBLIC

INDEPENDENT

## NEW PROGRAM PROPOSAL FOR ROUTINE REVIEW

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Please use this form as a worksheet and submit new program information through the Academic Program Actions Portal  
<https://web.dhewd.mo.gov/academicprogramaction/login.faces>

**Sponsoring Institution:**

**Program Title:** Data Science

**Degree/Certificate:**

**If other, please list:**

**Options:** ,

**Delivery Site:** Missouri State University, 901 S National Ave, Springfield, MO 65897

**CIP Classification:** 307001

**Implementation Date:** 8/19/2024

**Is this a new off-site location?**  Yes  No

**If yes, is the new location within your institution's current CBHE-approved service region?**

*\*If no, public institutions should consult the comprehensive review process*

**Is this a collaborative program?**  Yes  No

*\*If yes, please complete the collaborative programs form on last page.*

**Please list similar or comparable programs at Missouri public institutions of higher education.**

*\*For public institutions only*

University of Central Missouri, University of Missouri – St. Louis, University of Missouri – Kansas City

### CERTIFICATIONS:

- The program is within the institution's CBHE approved mission. *(public only)*
- The program will be offered within the institution's CBHE approved service region. *(public only)*
- The program builds upon existing programs and faculty expertise
- The program does not unnecessarily duplicate an existing program in the geographically-applicable area.
- The program can be launched with minimal expense and falls within the institution's current operating budget. *(public only)*

### AUTHORIZATION

<input type="text" value="John Jasinski, Provost"/>	<input type="text"/>	<input type="text"/>
Name/Title of Institutional Officer	Signature	Date

## **PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS**

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Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below.

Quantification of performance goals should be included wherever possible.

### **1. Student Preparation**

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.  
No special preparation is needed
- Characteristics of a specific population to be served, if applicable.  
N/A

### **2. Faculty Characteristics**

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate. A PhD is required for any course above the junior level (anything above 3-level). A MS or a PhD is required for all other classes offered as part of this degree with focus in Computer Science, Mathematics, Data Science, Statistics, or related fields.
- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.  
The vast majority of our courses will be instructed by full-time faculty members with relevant degrees. While we welcome the occasional involvement of working professionals with real-world experience in teaching a course, this will be a rare occurrence, limited to no more than 5-10% of a student's total coursework.
- Expectations for professional activities, special student contact, teaching/learning innovation.  
The departmental promotion and tenure guidelines will apply for the faculty members.

### **3. Enrollment Projections**

- Student FTE majoring in program by the end of five years.  
40
- Percent of full time and part time enrollment by the end of five years.  
100% full time

#### **STUDENT ENROLLMENT PROJECTIONS**

YEAR	1	2	3	4	5
Full Time	5	10	20	30	40
Part Time	0	0	0	0	0
Total	5	10	20	30	40

### **4. Student and Program Outcomes**

- Number of graduates per annum at three and five years after implementation.  
5 and 15
- Special skills specific to the program.  
N/A

- Proportion of students who will achieve licensing, certification, or registration.  
N/A
- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.  
N/A
- Placement rates in related fields, in other fields, unemployed.  
N/A
- Transfer rates, continuous study.  
N/A

### 5. Program Accreditation

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. If there are no plans to seek specialized accreditation, please provide rationale.  
Currently we do not have any plans to seek ABET accreditation as ABET does not have a formal accreditation process for this type of interdisciplinary field.

### 6. Program Structure

A. Total credits required for graduation: 120

B. Residency requirements, if any:

30 hours are to be in residence, 20 hours of the last 30 hours should be in residence

C. General education: Total credits:

45

*Courses (specific courses OR distribution area and credits)*

Distribution Area	Credits	Course Title
Foundations	2	First-Year Seminar
	3	Written Communication & Info Literacy
	3	Oral Communication
	3-5	Quantitative Literacy
	3	Written Comm. & Integrative & Applied Learning
Natural World	3-4	Life Sciences
	3-5	Physical Sciences
Human Cultures	6	Social and Behavioral Sciences
	3	Humanities
	3	The Arts
Public Affairs	6	US & MO Constitutions/American History and Institutions
	3	Cultural Competence
	3	Public Issues



D. Major requirements: Total credits: 72

Course Number	Credits	Course Title
CSC 130	3	The World of Computer Science
CSC 131	4	Computational Thinking
CSC 232	4	Data Structures
MTH 261	5	Analytic Geometry and Calculus I
MTH 280	5	Analytic Geometry and Calculus II
MTH 314 or 315	3	Discrete Mathematics or Algebraic Structures
CSC 330	3	Introduction to Data Science
CSC 325	3	Algorithms and Advanced Data Structures
CSC 335	3	Database System Concepts
CSC 534	3	Big Data Analytics
CSC 535	3	Data Mining
CSC 537	3	Deep Learning
MTH 302	3	Multivariate Calculus
MTH 333	3	Linear Algebra
MTH 345 or 540	3	Statistics for Scientists and Engineers or Statistical Theory I
MTH 547	3	Applied Regression Analysis
PHI 332	3	Data Ethics
COM 315	3	Advanced Speaking in Professional Settings
xxxxx	12	Advanced Courses (Computer Science, Statistics, or Mathematics Focus Areas)

E. Free elective credits: 3

*(sum of C, D, and E should equal A)*

F. Requirements for thesis, internship or other capstone experience:

N/A

G. Any unique features such as interdepartmental cooperation:

N/A

## 7. Need/Demand

Student demand

Market demand

Societal demand

I hereby certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful.

***On July 1, 2011, the Coordinating Board for Higher Education began provisionally approving all new programs with a subsequent review and consideration for full approval after five years.***

## COLLABORATIVE PROGRAMS

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- **Sponsoring Institution One:**
- **Sponsoring Institution Two:**
- **Other Collaborative Institutions:**
- **Length of Agreement:**
- **Which institution(s) will have degree-granting authority?**
- **Which institution(s) will have the authority for faculty hiring, course assignment, evaluation and reappointment decisions?**
- **What agreements exist to ensure that faculty from all participating institutions will be involved in decisions about the curriculum, admissions standards, exit requirements?**
- **Which institution(s) will be responsible for academic and student-support services, e.g., registration, advising, library, academic assistance, financial aid, etc.?**
- **What agreements exist to ensure that the academic calendars of the participating institutions have been aligned as needed?**

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geology-BS (Non-Comprehensive)

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

Attached [View Attachment](#)

**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~~

Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

To be clear, we have checked the boxes for adding existing and new courses, however, there is no real net change to the major, only some changes in intro course names, numbers, and one additional option for filling the intro requirement. Currently, students take a four-credit intro experience of either GLG 110(4) or GLG 171(3) + GLG 172(3). The proposed change reflects that GLG 110 will be split into a separate lecture (GLG 113) and a standalone lab course (GLG 116) and that students will now also have the option of taking GLG 171 (changing to GLG 114) or GLG 115 for the lecture portion of the intro requirement.

This does NOT result in any change to the number of credits or courses required for the major. There will also be no net change in the number of introductory courses in geology that we offer.

We are deleting GLG 110 in order to separate the lecture and laboratory portions of the course. GLG 110 is being replaced with a lecture only GLG 113 Earth: The Instruction Manual. The existing GLG 172 Physical Geology Laboratory course is being changed to GLG 116 Earth: The Hands-on Adventure. GLG 171 Environmental Geology is being changed to GLG 114 Earth: The Survival Guide and GLG 115 Life of the Past remains the same.

Any of the lecture courses (GLG 113, 114, or 115), in combination with the GLG 116 lab course, will now serve to fulfill the introductory course requirement for the geology major, minor, or certificate programs.

GLG 110 will be deleted after the proposals for GLG 113 (new course), 114 (change course), 115 (change course), and 116 (change course) are approved.

**Reason for Proposed Change:**

Moving to the model of standalone laboratory course (analogous to CHM 161 and BIO 111) streamlines the pathway into the geology major, minor, and certificate programs for students who have lecture credit, but lack the laboratory required for the major (especially common for students transferring to MSU to major in geology). It also provides flexibility for students who initially take a lecture-only geology course for their General Education or MOTR requirements and then discover an interest in filling their laboratory requirement with a geology course (for example, there is no current mechanism for students in the GLG 115 or GLG 171 to subsequently take a geology lab course for their General Education or MOTR requirement).

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

[Copy As New Proposal](#)

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# MAKE YOUR MENT

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Last Updated: 2023-12-11 16:29:51 [Contact Information](#)

# Geology Non-Comprehensive Major - Change Program Proposal

## Current Program Requirements:

Geology (Non-Comprehensive)

Bachelor of Science

Major requirements (45-47 hours):

1. [GLG 110](#)(4) or both [GLG 171](#)(3) and [GLG 172](#)(1); [GLG 314](#)(3), [332](#)(3), [333](#)(3), [334](#)(3), [340](#)(4), [358](#)(3).
2. Four hours from [GLG 412](#) or [GLG 413](#) or equivalent pre-approved field geology course transferred from another university.
3. Three hours from GLG courses numbered 318 or higher.
4. Three additional hours from GLG courses numbered 400 or higher.
5. [CHM 160](#)(4), [161](#)(1).
6. [MTH 137](#)(3) or higher.
7. [GEO 363](#)(4).
8. Public Affairs Capstone Experience will be fulfilled by completion of [GLG 358](#)(3).
9. Minor required (or second major). Geology majors wishing to emphasize paleontology should minor in biology.

# Geology Non-Comprehensive Major - Change Program Proposal

## Revised Program Requirements:

Geology (Non-Comprehensive)

Bachelor of Science

Major requirements (45-47 hours):

1. ~~GLG 110(4)~~ or both ~~GLG 171(3)~~ and ~~GLG 172(1)~~ **GLG 113(3) or GLG 114(3) or GLG 115(3) and GLG 116(1);** [GLG 314\(3\)](#), [332\(3\)](#), [333\(3\)](#), [334\(3\)](#), [340\(4\)](#), [358\(3\)](#).
2. Four hours from [GLG 412](#) or [GLG 413](#) or equivalent pre-approved field geology course transferred from another university.
3. Three hours from GLG courses numbered 318 or higher.
4. Three additional hours from GLG courses numbered 400 or higher.
5. [CHM 160\(4\)](#), [161\(1\)](#).
6. [MTH 137\(3\)](#) or higher.
7. [GEO 363\(4\)](#).
8. Public Affairs Capstone Experience will be fulfilled by completion of [GLG 358\(3\)](#).
9. Minor required (or second major). Geology majors wishing to emphasize paleontology should minor in biology.

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geology-BS (Comprehensive)

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

Attached [View Attachment](#)

**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~~



Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
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- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

To be clear, we have checked the boxes for adding existing and new courses, however, there is no real net change to the major, only some changes in intro course names, numbers, and one additional option for filling the intro requirement. Currently, students take a four-credit intro experience of either GLG 110(4) or GLG 171(3) + GLG 172(3). The proposed change reflects that GLG 110 will be split into a separate lecture (GLG 113) and a standalone lab course (GLG 116) and that students will now also have the option of taking GLG 171 (changing to GLG 114) or GLG 115 for the lecture portion of the intro requirement.

This does NOT result in any change to the number of credits or courses required for the major. There will also be no net change in the number of introductory courses in geology that we offer.

We are deleting GLG 110 in order to separate the lecture and laboratory portions of the course. GLG 110 is being replaced with a lecture only GLG 113 Earth: The Instruction Manual. The existing GLG 172 Physical Geology Laboratory course is being changed to GLG 116 Earth: The Hands-on Adventure. GLG 171 Environmental Geology is being changed to GLG 114 Earth: The Survival Guide and GLG 115 Life of the Past remains the same.

Any of the lecture courses (GLG 113, 114, or 115), in combination with the GLG 116 lab course, will now serve to fulfill the introductory course requirement for the geology major, minor, or certificate programs.

GLG 110 will be deleted after the proposals for GLG 113 (new course), 114 (change course), 115 (change course), and 116 (change course) are approved.

**Reason for Proposed Change:**

Moving to the model of standalone laboratory course (analogous to CHM 161 and BIO 111) streamlines the pathway into the geology major, minor, and certificate programs for students who have lecture credit, but lack the laboratory required for the major (especially common for students transferring to MSU to major in geology). It also provides flexibility for students who initially take a lecture-only geology course for their General Education or MOTR requirements and then discover an interest in filling their laboratory requirement with a geology course (for example, there is no current mechanism for students in the GLG 115 or GLG 171 to subsequently take a geology lab course for their General Education or MOTR requirement).

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

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Last Updated: 2023-12-11 16:29:51 [Contact Information](#)

# Geology Comprehensive Major - Change Program Proposal

Current Program Requirements:

## **Geology (Comprehensive)**

Bachelor of Science

### **Major requirements (65-71 hours):**

This major is designed for those who wish to seek admission to graduate school in geology or related fields.

1. [GLG 110](#)(4) or both [GLG 171](#)(3) and [GLG 172](#)(1); [GLG 314](#)(3), [332](#)(3), [333](#)(3), [334](#)(3), [340](#)(4), [358](#)(3), [570](#)(3).
2. Six hours from [GLG 412](#) or [GLG 413](#) or equivalent pre-approved field geology course transferred from another university.
3. 10 additional hours of GLG courses numbered 318 or higher, with at least six of these hours from GLG courses numbered 400 or higher.
4. [GEO 363](#)(4).
5. [CHM 160](#)(4), [161](#)(1); [PHY 123](#)(4) or [203](#)(5); [MTH 261](#)(5) or [287](#)(3).
6. Seven to 10 hours from two of the following groups:
  - a. [CHM 170](#)(3) and [171](#)(1).
  - b. [PHY 124](#)(4) or [204](#)(5).
  - c. [MTH 280](#)(5) or [288](#)(3).
7. Public Affairs Capstone Experience will be fulfilled by completion of [GLG 358](#)(3).

# Geology Comprehensive Major - Change Program Proposal

Revised Program Requirements:

## **Geology (Comprehensive)**

Bachelor of Science

### **Major requirements (65-71 hours):**

This major is designed for those who wish to seek admission to graduate school in geology or related fields.

1. ~~GLG 110(4) or both GLG 171(3) and GLG 172(1)~~ **GLG 113(3) or GLG 114(3) or GLG 115(3) and GLG 116(1);** [GLG 314\(3\)](#), [332\(3\)](#), [333\(3\)](#), [334\(3\)](#), [340\(4\)](#), [358\(3\)](#), [570\(3\)](#).
2. Six hours from [GLG 412](#) or [GLG 413](#) or equivalent pre-approved field geology course transferred from another university.
3. 10 additional hours of GLG courses numbered 318 or higher, with at least six of these hours from GLG courses numbered 400 or higher.
4. [GEO 363\(4\)](#).
5. [CHM 160\(4\)](#), [161\(1\)](#); [PHY 123\(4\)](#) or [203\(5\)](#); [MTH 261\(5\)](#) or [287\(3\)](#).
6. Seven to 10 hours from two of the following groups:
  - a. [CHM 170\(3\)](#) and [171\(1\)](#).
  - b. [PHY 124\(4\)](#) or [204\(5\)](#).
  - c. [MTH 280\(5\)](#) or [288\(3\)](#).
7. Public Affairs Capstone Experience will be fulfilled by completion of [GLG 358\(3\)](#).

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Envirn & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

**Choose All That Apply:**

- Bachelor of Arts
- Bachelor of Applied Science
- Bachelor of Fine Arts
- Bachelor of Music Education
- Bachelor of Music
- Bachelor of Science
- Bach of Science in Education
- Bachelor of Science in Nursing
- Bachelor of Social Work

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geology

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

Attached [View Attachment](#)

**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~~

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Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements

Other

To be clear, we have checked the boxes for adding existing and new courses, however, there is no real net change to the minor, only some changes in intro course names, numbers, and one additional option for filling the intro requirement. Currently, students take a four-credit intro experience of either GLG 110(4) or GLG 171(3) + GLG 172(3). The proposed change reflects that GLG 110 will be split into a separate lecture (GLG 113) and a standalone lab course (GLG 116) and that students will now also have the option of taking GLG 171 (changing to GLG 114) or GLG 115 for the lecture portion of the intro requirement.

This does NOT result in any change to the number of credits or courses required for the minor. There will also be no net change in the number of introductory courses in geology that we offer.

We are deleting GLG 110 in order to separate the lecture and laboratory portions of the course. GLG 110 is being replaced with a lecture only GLG 113 Earth: The Instruction Manual. The existing GLG 172 Physical Geology Laboratory course is being changed to GLG 116 Earth: The Hands-on Adventure. GLG 171 Environmental Geology is being changed to GLG 114 Earth: The Survival Guide and GLG 115 Life of the Past remains the same.

Any of the lecture courses (GLG 113, 114, or 115), in combination with the GLG 116 lab course, will now serve to fulfill the introductory course requirement for the geology major, minor, or certificate programs.

GLG 110 will be deleted after the proposals for GLG 113 (new course), 114 (change course), 115 (change course), and 116 (change course) are approved.

**Reason for Proposed Change:**

Moving to the model of standalone laboratory course (analogous to CHM 161 and BIO 111) streamlines the pathway into the geology major, minor, and certificate programs for students who have lecture credit, but lack the laboratory required for these programs (especially common for students transferring to MSU for geology). It also provides flexibility for students who initially take a lecture-only geology course for their General Education or MOTR requirements and then discover an interest in filling their laboratory requirement with a geology course (for example, there is no current mechanism for students in the GLG 115 or GLG 171 to subsequently take a geology lab course for their General Education or MOTR requirement).

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

## Geology Minor - Change Program Proposal

### Current Program Requirements:

Minor(s)

Geology

Bachelor of Arts

1. GLG 110(4) or both GLG 171(3) and 172(1); GLG 314(4).
2. Four hours of GLG 360(1-3) or 412(4).
3. Three additional hours of GLG courses numbered 318 or higher.

Geology

Bachelor of Science

1. GLG 110(4) or both GLG 171(3) and 172(1); GLG 314(4).
2. Four hours of GLG 360(1-3) or 412(4).
3. Six additional hours of GLG courses numbered 318 or higher.



## Geology Minor - Change Program Proposal

### Revised Program Requirements:

Minor(s)

Geology

Bachelor of Arts

1. ~~GLG 110(4) or both GLG 171(3) and GLG 172(1)~~ **GLG 113(3) or GLG 114(3) or GLG 115(3) and GLG 116(1)**; GLG 314(4).
2. Four hours of GLG 360(1-3) or 412(4).
3. Three additional hours of GLG courses numbered 318 or higher.

Geology

Bachelor of Science

1. ~~GLG 110(4) or both GLG 171(3) and GLG 172(1)~~ **GLG 113(3) or GLG 114(3) or GLG 115(3) and GLG 116(1)**; GLG 314(4).
2. Four hours of GLG 360(1-3) or 412(4).
3. Six additional hours of GLG courses numbered 318 or higher.

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Envirn & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

**Choose All That Apply:**

- Bachelor of Arts
- Bachelor of Applied Science
- Bachelor of Fine Arts
- Bachelor of Music Education
- Bachelor of Music
- Bachelor of Science
- Bach of Science in Education
- Bachelor of Science in Nursing
- Bachelor of Social Work

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geospatial Sciences

**Current Catalog Description:**

*(Either cut and paste present description from online catalog **OR** provide as an attachment below)*

Attached [View Attachment](#)

**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~~

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Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geology and geography programs are changing the names of their introductory courses (including splitting 4 credit courses into separate 3 credit lectures and 1 credit standalone labs).

We are reflecting these changes by updating the affected courses in our major requirement (specifically requirement #1) as follows:

Old Course --> New Course

GLG 110(4) --> GLG 113(3)

GLG 171(3) --> GLG 114(3)

GRY 135(4) --> GRY 137(3)

GRY 142(4) --> GRY 145(3)

We are not requiring that students take the associated laboratories that are offered in conjunction with these lectures, since we already allow other non-laboratory course options within the list of allowed courses in requirement #1.

**Reason for Proposed Change:**

As described above we are changing four courses in the requirement #1 list to reflect changes being made by the geology and geography programs. This results in no change to the number of credits or courses required for the major.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

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# Geospatial Sciences Minor - Change Program Proposal

## Current Program Requirements:

### Minor(s)

#### Geospatial Sciences

##### Bachelor of Science

1. One course from: GEO 200(3), GLG 110(4), GLG 171(3), GRY 1003), GRY 108(3), GRY 135(3), GRY 142(3), PLN 100(3).
2. GEO 360(3), 363(4), 551(3).
3. Three additional hours from GEO courses numbered 300 or higher. Note: Students majoring in geography must complete six hours of GEO courses numbered 300 or higher to avoid overlap with the major degree requirements.

# Geospatial Sciences Minor - Change Program Proposal

## Revised Program Requirements:

### Minor(s)

#### Geospatial Sciences

##### Bachelor of Science

1. One course from: GEO 200(3), **GLG 113(3)**, **GLG 114(3)** ~~GLG 110(4)~~, ~~GLG 171(3)~~, GRY 100(3), GRY 108(3), **GRY 137(3)** ~~GRY 135(4)~~, **GRY 145(3)** ~~GRY 142(4)~~, PLN 100(3).
2. GEO 360(3), 363(4), 551(3).
3. Three additional hours from GEO courses numbered 300 or higher. Note: Students majoring in geography must complete six hours of GEO courses numbered 300 or higher to avoid overlap with the major degree requirements.

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geospatial Sciences-BS

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

Attached [View Attachment](#)

**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)*

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Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geology and geography programs are changing the names of their introductory courses (including splitting 4 credit courses into separate 3 credit lectures and 1 credit standalone labs).

We are reflecting these changes by updating the affected courses in our major requirement (specifically requirement #1) as follows:

Old Course --> New Course

GLG 110(4) --> GLG 113(3)

GLG 171(3) --> GLG 114(3)

GRY 135(4) --> GRY 137(3)

GRY 142(4) --> GRY 145(3)

We are not requiring that students take the associated laboratories that are offered in conjunction with these lectures, since we already allow other non-laboratory course options within the list of allowed courses in requirement #1.

**Reason for Proposed Change:**

As described above we are changing four courses in the requirement #1 list to reflect changes being made by the geology and geography programs. This results in no change to the number of credits or courses required for the major.



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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

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# Geospatial Science Major (Comprehensive)- Change Program Proposal

## Current Program Requirements:

### Geospatial Sciences (Comprehensive)

Bachelor of Science

#### Major requirements (52-53 hours):

1. One course from: GEO 200(3), GLG 110(4), GLG 171(3), GRY 100(3), GRY 108(3), GRY 135(3), GRY 142(3), PLN 100(3).
2. Field Experience from: GRY 301(3) or 353(3) or 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience.
3. GEO 360(3), GEO 363(4), PLN 367(3).
4. GEO 551(3), 561(3), 562(3), 566(3), 568(3), 572(3).
5. CSC 130(3).
6. One statistics course from: AGR 330(3), MTH 340(3), PSY 200(3), QBA 237(3), REC 328(3), SOC 220(3).
7. Three additional hours with GEO course code.
8. Nine additional hours from: GEO or GRY courses numbered 275 or higher; TCM 110(3); MTH 136(3) or higher; CSC 131(4), CSC 335(3).
9. Public Affairs Capstone Experience will be fulfilled by completion of the field experience requirement.

# Geospatial Science Major (Comprehensive)- Change Program Proposal

## Revised Program Requirements:

### Geospatial Sciences (Comprehensive)

Bachelor of Science

#### Major requirements (52-53 hours):

1. One course from: GEO 200(3), **GLG 113(3)**, **GLG 114(3)** ~~GLG 110(4)~~, ~~GLG 171(3)~~, GRY 100(3), GRY 108(3), **GRY 137(3)** ~~GRY 135(3)~~, **GRY 145(3)** ~~GRY 142(3)~~, PLN 100(3).
2. Field Experience from: GRY 301(3) or 353(3) or 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience.
3. GEO 360(3), GEO 363(4), PLN 367(3).
4. GEO 551(3), 561(3), 562(3), 566(3), 568(3), 572(3).
5. CSC 130(3).
6. One statistics course from: AGR 330(3), MTH 340(3), PSY 200(3), QBA 237(3), REC 328(3), SOC 220(3).
7. Three additional hours with GEO course code.
8. Nine additional hours from: GEO or GRY courses numbered 275 or higher; TCM 110(3); MTH 136(3) or higher; CSC 131(4), CSC 335(3).
9. Public Affairs Capstone Experience will be fulfilled by completion of the field experience requirement.

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Community and Regional Planning-BS

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

Attached [View Attachment](#)

**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~~

Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geology and geography programs are changing the names of their introductory courses (including splitting 4 credit courses into separate 3 credit lectures and 1 credit standalone labs).

We are reflecting these changes by updating the affected courses in our major requirement (specifically requirement #1) as follows:

Old Course --> New Course

GLG 110(4) --> GLG 113(3)

GLG 171(3) --> GLG 114(3)

GRY 142(4) --> GRY 145(3)

We are not requiring that students take the associated laboratories that are offered in conjunction with these lectures, since we already allow other non-laboratory course options within the list of allowed courses in requirement #1.

**Reason for Proposed Change:**

As described above we are changing three courses in the requirement #1 list to reflect changes being made by the geology and geography programs. This results in no change to the number of credits or courses required for the major.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

Copy As New Proposal

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## Geology Minor - Change Program Proposal

### Current Program Requirements:

Minor(s)

Geology

Bachelor of Arts

1. GLG 110(4) or both GLG 171(3) and 172(1); GLG 314(4).
2. Four hours of GLG 360(1-3) or 412(4).
3. Three additional hours of GLG courses numbered 318 or higher.

Geology

Bachelor of Science

1. GLG 110(4) or both GLG 171(3) and 172(1); GLG 314(4).
2. Four hours of GLG 360(1-3) or 412(4).
3. Six additional hours of GLG courses numbered 318 or higher.

# Community and Regional Planning Major (Comprehensive)- Change Program Proposal

Revised Program Requirements:

Community and Regional Planning (Comprehensive)

Bachelor of Science

Major requirements (38-39 hours)

1. One course from: PLN 100(3), GRY 100(3), GRY 108(3), **GRY 145(3)** ~~GRY 142(4)~~, **GLG 113(3)**, **GLG 114(3)** ~~GLG 110(4)~~, ~~GLG 171(3)~~.
2. PLN 300(3), 367(3), 370(3); PLN 570(3) or LAW 537(3); PLN 571(3), 572(4), 599(3); PLS 351(3); GEO 363(4); SOC 220(3).
3. Three additional hours from GRY 322(3) or 325(3) or PLN courses numbered above 300.
4. Cannot count both GRY 322(3) and PLN 100(3) toward the major requirements.
5. Public Affairs Capstone Experience will be fulfilled by completion of PLN 572(4).



# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Engineering Geology-Undergraduate Certificate

**Current Catalog Description:**

*(Either cut and paste present description from online catalog **OR** provide as an attachment below)*

Attached [View Attachment](#)

**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~~

Empty text area for content.

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Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geology program is changing the names of our introductory courses. We are updating GLG 110(4) to allow either GLG 113+116 or GLG 114+116 in certificate requirement #1 to reflect the equivalent new/changed courses. GLG 110(4) is being changed to GLG 113(3) and GLG 171(3) is being changed to GLG 114(3). GLG 116 is the standalone laboratory course that goes with GLG 113 or 114.

We have also made some textual clarifications to the notes included with the program requirements.

Lastly, since students in the Cooperative Engineering program no longer take GRY 245 Plane Surveying, we are offering to substitute the surveying course they take for their major, similar to how we already substituted for GLG 572.

**Reason for Proposed Change:**

As described above we are changing the names of two courses in the list from requirement #1 to reflect changes being made to the names and numbers of introductory geology courses. This results in no change to the number of credits or courses required for the program.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

# Engineering Geology - Certificate - Change Program Proposal

## Current Program Requirements:

### Program requirements (13 hours)

1. GRY 275(3), GLG 110(4), GLG 573(3).
2. One course from: GLG 572(3), 580(3), 590(3).
3. All candidates must satisfy the General University Certificate Requirements.

Note: The GLG prerequisites for GLG 573, 572, 580 and 590 may be waived for non-geology majors at the discretion of the department head, assuming that student has already completed GLG 110 and any MTH prerequisites for the course.

Note: Students in the cooperative engineering program may contact the School of Earth, Environment and Sustainability director to request a substitution for GLG 572.

### Completion requirement

Attain a grade of C or better in all courses used to fulfill the certificate requirements.

# Engineering Geology - Certificate - Change Program Proposal

## Revised Program Requirements:

### Program requirements (13 hours)

1. GRY 275(3), **GLG 113(3) and GLG 116 or 114(3) and GLG 116(1)** ~~GLG 110(4)~~, GLG 573(3).
2. One course from: GLG 572(3), 580(3), 590(3).
3. All candidates must satisfy the General University Certificate Requirements.

Note: The GLG prerequisites for GLG 573, 572, 580 and 590 may be waived for non-geology majors at the discretion of the department head, assuming that **the** student has already completed GLG 110 and any MTH prerequisites for the course.

Note: Students in the cooperative engineering program may contact the School of Earth, Environment and Sustainability director to request substitutions **from their major program requirements** for **GRY 275 and GLG 572**.

### Completion requirement

Attain a grade of C or better in all courses used to fulfill the certificate requirements.

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Environmental Geoscience-Undergraduate Certificate

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

Attached [View Attachment](#)

**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)*

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geology and geography programs are changing the names of their introductory courses (including splitting 4 credit lecture / laboratory courses into separate 3 credit lectures and 1 credit standalone labs).

We are reflecting these changes by updating the affected courses in our certificate requirement (specifically requirement #1) as follows:

Old Course --> New Course

GLG 171(3) --> GLG 114(3)

GLG 172(1) --> GLG 116(1)

GRY 135(4) --> GRY 137(3) and GRY 138(1)

**Reason for Proposed Change:**

As described above we are changing listed courses in the requirements #1 and #2 to reflect changes being made by the geology and geography programs. This results in no change to the number of credits or courses required for the certificate.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

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## Environmental Geoscience Certificate - - Change Program Proposal

### Current Program Requirements:

#### Program requirements (13-14 hours)

1. GRY 135(4) or GRY 351(3).
2. GLG 171(3) and GLG 172(1).
3. GLG 580(3) or CHM 460(3).
4. GRY 108(3) or GLG 547(3).
5. All candidates must satisfy the General University Certificate Requirements.

Note: The GLG 172 requirement will be waived for students who have a grade of C or better in GLG 110.

Note: Students enrolled in sections of BIO 547 cross-listed with GLG 547 may count that course in place of GLG 547.

#### Completion requirement

Attain a grade of C or better in all courses used to fulfill the certificate requirements.



# Environmental Geoscience Certificate - Change Program Proposal

## Revised Program Requirements:

### Program requirements (13-14 hours)

1. **GRY 137(3) and GRY 138(1)** ~~GRY 135(4)~~ or GRY 351(3).
2. **GLG 114(3)** ~~GLG 171(3)~~ and **GLG 116(1)** ~~GLG 172(1)~~.
3. GLG 580(3) or CHM 460(3).
4. GRY 108(3) or GLG 547(3).
5. All candidates must satisfy the General University Certificate Requirements.

~~Note: The GLG 172 requirement will be waived for students who have a grade of C or better in GLG 110.~~

Note: Students enrolled in sections of BIO 547 cross-listed with GLG 547 may count that course in place of GLG 547.

### Completion requirement

Attain a grade of C or better in all courses used to fulfill the certificate requirements.

# Change Program Proposal Form

**Submitted on 01/05/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geologic Foundations-Undergraduate Certificate

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

Attached [View Attachment](#)

**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~~

Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geology program is changing the names of their introductory courses. courses (including splitting 4 credit courses into separate 3 credit lectures and 1 credit standalone labs).

Old Course --> New Course

GLG 110(4) --> GLG 113(3)

GLG 171(3) --> GLG 114(3)

GLG 115(3) --> No change

GRY 172(1) --> GLG 116(1)

In the current requirements GLG 110 is specified. Here we are changing the requirements to allow students to take the GLG 116 lab plus either GLG 113, 114, or 115.

**Reason for Proposed Change:**

As described above we are updating the program requirements to align with the new names and numbers of the introductory geology courses. This results in no change to the number of credits or courses required for the major.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/05/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

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## Geologic Foundations Certificate - - Change Program Proposal

### Current Program Requirements:

#### Program requirements (13-14 hours)

1. GLG 110(4), 314(3), 332(3).
2. One course from: GLG 333(3), 334(3), 340(3).
3. All candidates must satisfy the General University Certificate Requirements.

#### Completion requirement

Attain a grade of C or better in all courses used to fulfill the certificate requirements.

## Geologic Foundations Certificate - Change Program Proposal

### Revised Program Requirements:

#### Program requirements (13-14 hours)

1. **GLG 113(3) or GLG 114(3) or GLG 115(3), GLG 116(1)** ~~GLG 110(4), 314(3), 332(3).~~
2. One course from: GLG 333(3), 334(3), 340(3).
3. All candidates must satisfy the General University Certificate Requirements.

#### Completion requirement

Attain a grade of C or better in all courses used to fulfill the certificate requirements.

# Change Program Proposal Form

**Submitted on 01/07/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geography and Sustainability-BS

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

Attached [View Attachment](#)

**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)*

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Empty form area for attachments or images.

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geography program is changing the names and numbers of our introductory courses. GRY 142 Introductory Physical Geography (4 cr. lecture and lab) is being deleted and replaced with separate standalone lecture (GRY 145 Earth's Natural Environment) and standalone lab (GRY 146 Earth's Natural Environment Laboratory) courses.

Old Course --> New Course

GRY 142(4) --> GRY 145(3) (lecture+lab to lecture only)

GRY 143(1) --> GRY 146(1)

**Reason for Proposed Change:**

We are updating this major program to reflect the course changes described above. Specifically, GRY 142 is being removed and replaced with GRY 145(3) lecture and GRY 146(1) lab.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/07/2024 - Submitted by Department Head (Toby Dogwiler)



**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

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# Geography BS Non-Comprehensive Major - - Change Program Proposal

Current Program Requirements:

## Geography and Sustainability

Major(s)

## Geography and Sustainability (Non-Comprehensive) (BS)

Bachelor of Science

Major requirements (38 hours):

1. GRY 100(3), GRY 108(3), GRY 142(4), GEO 363(4), PLN 367(3).
2. One course from: GRY 300(3), 305(3), 316(3), 318(3), 320(3), 321(3), 322(3), 323(3), 325(3).
3. Related requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
4. Public Affairs Capstone Experience. Three hours of Experience in Geosustainability course from: GRY 301(3) or 353(3) or 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
5. 12 additional hours with GRY, GEO, or PLN course code.
6. Minor required (or second major).

University level requirements:

1. General Education Program and Requirements
2. General Baccalaureate Degree Requirements

# Geography BS Non-Comprehensive Major - Change Program Proposal

Revised Program Requirements:

## Geography and Sustainability

Major(s)

### Geography and Sustainability (Non-Comprehensive) (BS)

Bachelor of Science

Major requirements (38 hours):

1. GRY 100(3), GRY 108(3), **GRY 145(3), GRY 146(1)** ~~GRY 142(4)~~, GEO 363(4), PLN 367(3).
2. One course from: GRY 300(3), 305(3), 316(3), 318(3), 320(3), 321(3), 322(3), 323(3), 325(3).
3. Related requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
4. Public Affairs Capstone Experience. Three hours of Experience in Geosustainability course from: GRY 301(3) or 353(3) or 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
5. 12 additional hours with GRY, GEO, or PLN course code.
6. Minor required (or second major).

University level requirements:

1. General Education Program and Requirements
2. General Baccalaureate Degree Requirements

# Change Program Proposal Form

**Submitted on 01/07/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

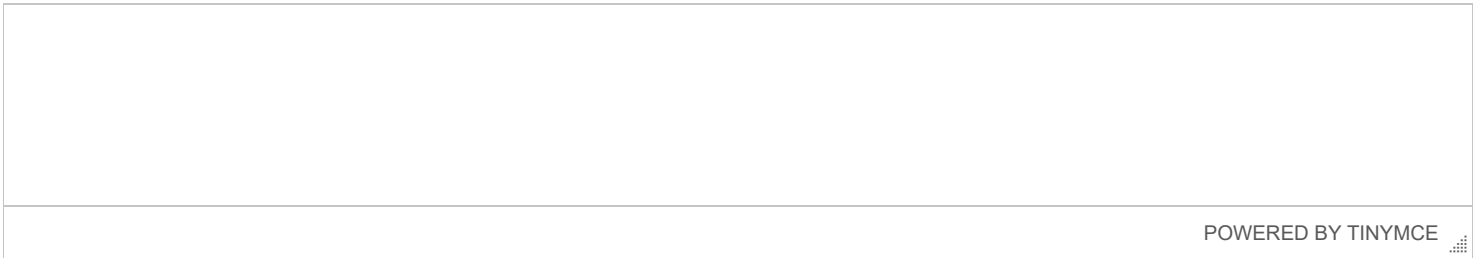
Geography and Sustainability/Sustainable Watershed Mgt-BS

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

Attached [View Attachment](#)

**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)*

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geography program is changing the names and numbers of our introductory courses. GRY 142 Introductory Physical Geography (4 cr. lecture and lab) is being deleted from the major core and replaced with separate standalone lecture (GRY 145 Earth's Natural Environment) and standalone lab (GRY 146 Earth's Natural Environment Laboratory) courses.

GRY 135 Principles of Weather and Climate is being deleted from requirement #2 in the option requirements and replaced with GRY 137 Meteorology: Understanding Weather and Climate. This replaces the lecture+lab course with the equivalent lecture-only course. We are not specifying that students have to take the GRY 138 Meteorology: Weather and Climate Laboratory because there are other electives in that requirement that do not include laboratories.

Old Course --> New Course

- GRY 142(4) --> GRY 145(3) (lecture+lab to lecture only)
- GRY 143(1) --> GRY 146(1)
- GRY 135(4) --> GRY 137(3) (lecture+lab to lecture only)

**Reason for Proposed Change:**

We are updating this major program to reflect the course changes described above. Specifically, GRY 142 is being removed from the major core and replaced with GRY 145(3) lecture and GRY 146(1) lab. GRY 135 is being removed from the #2 requirement in the option requirements and replaced with GRY 137.

This change does NOT affect the total number of credits required for the major.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/07/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

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# **Geography Comprehensive Major – Sustainable Watershed Management Option - Change Program Proposal**

Current Program Requirements:

## **Geography and Sustainability**

### **Major(s)**

#### **Geography and Sustainability (Comprehensive)**

Bachelor of Science

Major requirements (57-61 hours):

Major core (33-34 hours):

Note: 13-14 hours may double count toward General Education requirements.

1. BIO 101(3) or BIO 122(4); GEO 363(4); GRY 100(3), GRY 108(3), GRY 109(1), GRY 142(4), GRY 351(3), GRY 508(3), PLN 367(3).
2. No more than seven hours of option requirements may be taken prior to GRY 108(3) and counted toward the major.
3. GRY 508(3) must be taken in the last two semesters prior to completion of the degree program.
4. Related statistics requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
5. Experience in Geosustainability from: GRY 301(3), GRY 353(3), GRY 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
6. Public Affairs Capstone Experience will be fulfilled by completion of GRY 508(3).

Sustainable Watershed Management option (24-26 hours):

1. GRY 545(3), GRY 549(3), GRY 550(3); GLG 547(3) or BIO 547(3).
2. Two Water Systems courses from: BIO 485(3), BIO 509(4), BIO 532(3), BIO 533(4), BIO 562(4), GEO 569(3), GLG 350(3), GLG 580(3), GRY 135(4).
3. One Planning Framework course from: ECO 540(3), LAW 537(3), PLN 571(3).
4. One Terrestrial Systems course from: AGN 215(3), AGN 335(3), ANT 355(3), AGP 333(3), GLG 573(3).

# **Geography Comprehensive Major – Sustainable Watershed Management Option - Change Program Proposal**

Revised Program Requirements:

## **Geography and Sustainability**

### **Major(s)**

#### **Geography and Sustainability (Comprehensive)**

Bachelor of Science

Major requirements (57-61 hours):

Major core (33-34 hours):

Note: 13-14 hours may double count toward General Education requirements.

1. BIO 101(3) or BIO 122(4); GEO 363(4); GRY 100(3), GRY 108(3), GRY 109(1), **GRY 145(3), GRY 146(1)** ~~GRY 142(4)~~, GRY 351(3), GRY 508(3), PLN 367(3).
2. No more than seven hours of option requirements may be taken prior to GRY 108(3) and counted toward the major.
3. GRY 508(3) must be taken in the last two semesters prior to completion of the degree program.
4. Related statistics requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
5. Experience in Geosustainability from: GRY 301(3), GRY 353(3), GRY 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
6. Public Affairs Capstone Experience will be fulfilled by completion of GRY 508(3).

Sustainable Watershed Management option (24-26 hours):

1. GRY 545(3), GRY 549(3), GRY 550(3); GLG 547(3) or BIO 547(3).
2. Two Water Systems courses from: BIO 485(3), BIO 509(4), BIO 532(3), BIO 533(4), BIO 562(4), GEO 569(3), GLG 350(3), GLG 580(3), **GRY 137(3)** ~~GRY 135(4)~~.
3. One Planning Framework course from: ECO 540(3), LAW 537(3), PLN 571(3).
4. One Terrestrial Systems course from: AGN 215(3), AGN 335(3), ANT 355(3), AGP 333(3), GLG 573(3).



# Change Program Proposal Form

**Submitted on 01/07/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geography and Sustainability/Geography-BS

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

Attached [View Attachment](#)

**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~~

Empty rectangular box for content.

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Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geography program is changing the names and numbers of our introductory courses. GRY 142 Introductory Physical Geography (4 cr. lecture and lab) is being deleted and replaced with separate standalone lecture (GRY 145 Earth's Natural Environment) and standalone lab (GRY 146 Earth's Natural Environment Laboratory) courses.

Old Course --> New Course

GRY 142(4) --> GRY 145(3) (lecture+lab to lecture only)  
 GRY 143(1) --> GRY 146(1)

**Reason for Proposed Change:**

We are updating this major program to reflect the course changes described above. Specifically, GRY 142 is being removed from the major core and replaced with GRY 145(3) lecture and GRY 146(1) lab.

This change does NOT affect the total number of credits required for the major.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/07/2024 - Submitted by Department Head (Toby Dogwiler)

# Geography Comprehensive Major – Geography Option - Change Program Proposal

Current Program Requirements:

## Geography and Sustainability

### Major(s)

#### Geography and Sustainability (Comprehensive)

Bachelor of Science

Major requirements (57-61 hours):

Major core (33-34 hours):

Note: 13-14 hours may double count toward General Education requirements.

1. BIO 101(3) or BIO 122(4); GEO 363(4); GRY 100(3), GRY 108(3), GRY 109(1), GRY 142(4), GRY 351(3), GRY 508(3), PLN 367(3).
2. No more than seven hours of option requirements may be taken prior to GRY 108(3) and counted toward the major.
3. GRY 508(3) must be taken in the last two semesters prior to completion of the degree program.
4. Related statistics requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
5. Experience in Geosustainability from: GRY 301(3), GRY 353(3), GRY 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
6. Public Affairs Capstone Experience will be fulfilled by completion of GRY 508(3).

Geography option (24 hours):

1. Six hours from: GRY 300(3), 305(3), 316(3), 318(3), 320(3), 321(3), 322(3), 323(3), 325(3).
2. 18 additional hours with any GRY, GEO, or PLN course numbered 300 or above.

# Geography Comprehensive Major – Geography Option - Change Program Proposal

Revised Program Requirements:

## Geography and Sustainability

### Major(s)

#### Geography and Sustainability (Comprehensive)

Bachelor of Science

Major requirements (57-61 hours):

Major core (33-34 hours):

Note: 13-14 hours may double count toward General Education requirements.

1. BIO 101(3) or BIO 122(4); GEO 363(4); GRY 100(3), GRY 108(3), GRY 109(1), **GRY 145(3), GRY 146(1)** ~~GRY 142(4)~~, GRY 351(3), GRY 508(3), PLN 367(3).
2. No more than seven hours of option requirements may be taken prior to GRY 108(3) and counted toward the major.
3. GRY 508(3) must be taken in the last two semesters prior to completion of the degree program.
4. Related statistics requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
5. Experience in Geosustainability from: GRY 301(3), GRY 353(3), GRY 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
6. Public Affairs Capstone Experience will be fulfilled by completion of GRY 508(3).

Geography option (24 hours):

1. Six hours from: GRY 300(3), 305(3), 316(3), 318(3), 320(3), 321(3), 322(3), 323(3), 325(3).
2. 18 additional hours with any GRY, GEO, or PLN course numbered 300 or above.

# Change Program Proposal Form

**Submitted on 01/07/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Envirn & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

**Choose All That Apply:**

- Bachelor of Arts
- Bachelor of Applied Science
- Bachelor of Fine Arts
- Bachelor of Music Education
- Bachelor of Music
- Bachelor of Science
- Bach of Science in Education
- Bachelor of Science in Nursing
- Bachelor of Social Work

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geography

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

Attached [View Attachment](#)

**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)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geography program is changing the names and numbers of our introductory courses. GRY 142 Introductory Physical Geography (4 cr. lecture and lab) is being deleted and replaced with separate standalone lecture (GRY 145 Earth's Natural Environment) and standalone lab (GRY 146 Earth's Natural Environment Laboratory) courses.

Old Course --> New Course

GRY 142(4) --> GRY 145(3) (lecture+lab to lecture only)

GRY 143(1) --> GRY 146(1)

**Reason for Proposed Change:**

We are updating this minor program to reflect the course changes described above. Specifically, GRY 142 is being removed and replaced with GRY 145(3) lecture and GRY 146(1) lab.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/07/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

[Copy As New Proposal](#)

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# Geography Minor - - Change Program Proposal

Current Program Requirements:

## Geography

### Minor(s)

## Geography

Bachelor of Arts

Bachelor of Science

Bachelor of Science in Education (Non-Certifiable)

1. GRY 100(3), GRY 142(4), GEO 363(4).
2. Additional GRY, GEO, or PLN courses numbered 300 or higher to total at least 17 hours.



# Geography Minor - - Change Program Proposal

Revised Program Requirements:

## Geography

Minor(s)

## Geography

Bachelor of Arts

Bachelor of Science

Bachelor of Science in Education (Non-Certifiable)

1. GRY 100(3), **GRY 145(3), GRY 146(1)** ~~GRY 142(4)~~, GEO 363(4).
2. Additional GRY, GEO, or PLN courses numbered 300 or higher to total at least 17 hours.

# Change Program Proposal Form

**Submitted on 01/07/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geography and Sustainability/Sustainable Development-BS

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

Attached [View Attachment](#)

**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~~

Empty text area for content.

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Attached [View Attachment](#)

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

- Title change
- Adding option to an existing program (major)
- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geography program is changing the names and numbers of our introductory courses. GRY 142 Introductory Physical Geography (4 cr. lecture and lab) is being deleted and replaced with separate standalone lecture (GRY 145 Earth's Natural Environment) and standalone lab (GRY 146 Earth's Natural Environment Laboratory) courses.

Old Course --> New Course

GRY 142(4) --> GRY 145(3) (lecture+lab to lecture only)

GRY 143(1) --> GRY 146(1)

**Reason for Proposed Change:**

We are updating this major program to reflect the course changes described above. Specifically, GRY 142 is being removed from the major core and replaced with GRY 145(3) lecture and GRY 146(1) lab.

This change does NOT affect the total number of credits required for the major.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/07/2024 - Submitted by Department Head (Toby Dogwiler)

**Review Comments:**

No comments have been added to this proposal.

No review notes have been added.

[Copy As New Proposal](#)

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# Geography Comprehensive Major – Sustainable Development Option - Change Program Proposal

Current Program Requirements:

## Geography and Sustainability

### Major(s)

#### Geography and Sustainability (Comprehensive)

Bachelor of Science

Major requirements (57-61 hours):

Major core (33-34 hours):

Note: 13-14 hours may double count toward General Education requirements.

1. BIO 101(3) or BIO 122(4); GEO 363(4); GRY 100(3), GRY 108(3), GRY 109(1), GRY 142(4), GRY 351(3), GRY 508(3), PLN 367(3).
2. No more than seven hours of option requirements may be taken prior to GRY 108(3) and counted toward the major.
3. GRY 508(3) must be taken in the last two semesters prior to completion of the degree program.
4. Related statistics requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
5. Experience in Geosustainability from: GRY 301(3), GRY 353(3), GRY 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
6. Public Affairs Capstone Experience will be fulfilled by completion of GRY 508(3).

Sustainable Development option (27 hours):

1. Applied Sustainability course: GRY 510(3) or REC 302(3).
2. Regional Perspectives:
  - a. One regional perspectives core course from: GRY 300(3), 305(3), 322(3), 325(3),
  - b. Two courses within one of the following regional options:
    - i. Asia: ANT 334(3), ECO 345(3), HST 381(3), HST 571(3), PLS 545(3).
    - ii. Middle East: HST 371(3), PLS 443(3), PLS 569(3).
    - iii. Africa: ANT 332(3), GRY 507(3), HST 323(3), HST 334(3), HST 339(3), PLS 550(3).
    - iv. Latin America: ANT 336(3), HST 362(3), HST 364(3), PLS 548(3).
    - v. Other region subject to advisor approval.
3. One Planning course: PLN 370(3) or PLN 571(3).

4. Two Economics Understanding courses from: ECO 155(3), 346(3), 450(3), 456(3), 565(3); GRY 321(3).
5. Two Policy related courses from: AGN 115(3), ANT 313(3), ANT 314(3), ANT 370(3), AGR 100(3), BIO 502(3), GRY 320(3), LAW 537(3), PLN 505(3), PLS 232(3), PLS 320(3), PLS 546(3), SOC 319(3), SOC 420(3), SOC 430(3), SOC 450(3), SOC 456(3).

# Geography Comprehensive Major – Sustainable Development Option - Change Program Proposal

Revised Program Requirements:

## Geography and Sustainability

### Major(s)

#### Geography and Sustainability (Comprehensive)

Bachelor of Science

Major requirements (57-61 hours):

Major core (33-34 hours):

Note: 13-14 hours may double count toward General Education requirements.

1. BIO 101(3) or BIO 122(4); GEO 363(4); GRY 100(3), GRY 108(3), GRY 109(1), **GRY 145(3), GRY 146(1)** ~~GRY 142(4)~~, GRY 351(3), GRY 508(3), PLN 367(3).
2. No more than seven hours of option requirements may be taken prior to GRY 108(3) and counted toward the major.
3. GRY 508(3) must be taken in the last two semesters prior to completion of the degree program.
4. Related statistics requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
5. Experience in Geosustainability from: GRY 301(3), GRY 353(3), GRY 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
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  - b. Two courses within one of the following regional options:
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5. Two Policy related courses from: AGN 115(3), ANT 313(3), ANT 314(3), ANT 370(3), AGR 100(3), BIO 502(3), GRY 320(3), LAW 537(3), PLN 505(3), PLS 232(3), PLS 320(3), PLS 546(3), SOC 319(3), SOC 420(3), SOC 430(3), SOC 450(3), SOC 456(3).



# Change Program Proposal Form

**Submitted on 01/07/2024 by Toby Dogwiler ([TDogwiler@MissouriState.edu](mailto:TDogwiler@MissouriState.edu)).**

**Department:**

Earth, Environ & Sustainability

**Type of Program**

**Choose One:**

- Non-Comprehensive Undergraduate Major
- Comprehensive Undergraduate Major
- Graduate Program
- Option
- Minor
- Certificate

Does this program include any new courses?

- No
- Yes (A corresponding new course form must be submitted to create each new course.)

**Title of Program Affected:**

Geography and Sustainability-BA

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

Attached [View Attachment](#)

**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~~

Empty text area for attachments or notes.

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Attached [View Attachment](#)

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- Title change
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- Deleting option from an existing program (major)
- Adding existing course(s) totaling  credits
- Adding newly created course(s) totaling  credits

**(Note: A new course proposal must be submitted for each new course)**

- Deleting courses from the program (major)

**(Note: A Delete Course Proposal form must be submitted if deleting course from catalog.)**

- Changing admission requirements
- Other

The geography program is changing the names and numbers of our introductory courses. GRY 142 Introductory Physical Geography (4 cr. lecture and lab) is being deleted and replaced with separate standalone lecture (GRY 145 Earth's Natural Environment) and standalone lab (GRY 146 Earth's Natural Environment Laboratory) courses.

Old Course --> New Course

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GRY 143(1) --> GRY 146(1)

**Reason for Proposed Change:**

We are updating this major program to reflect the course changes described above. Specifically, GRY 142 is being removed and replaced with GRY 145(3) lecture and GRY 146(1) lab.

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

08/18/2023

**Current Status:**

College Council Review

**Proposal Progress:**

01/07/2024 - Submitted by Department Head (Toby Dogwiler)

# Geography BA Non-Comprehensive Major - - Change Program Proposal

Current Program Requirements:

## Geography and Sustainability

Major(s)

### Geography and Sustainability (Non-Comprehensive) (BA)

Bachelor of Arts

Major requirements (38 hours):

1. GRY 100(3), GRY 108(3), GRY 142(4), GEO 363(4), PLN 367(3).
2. One course from: GRY 300(3), 305(3).
3. Related requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
4. Public Affairs Capstone Experience. Three hours of Experience in Geosustainability course from: GRY 301(3) or 353(3) or 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
5. 12 additional hours with GRY, GEO, or PLN course code.
6. Minor required (or second major).
7. Specific Bachelor of Arts Degree Requirements

University level requirements:

1. General Education Program and Requirements
2. General Baccalaureate Degree Requirements

# Geography BA Non-Comprehensive Major - Change Program Proposal

Revised Program Requirements:

## Geography and Sustainability

Major(s)

### Geography and Sustainability (Non-Comprehensive) (BA)

Bachelor of Arts

Major requirements (38 hours):

1. GRY 100(3), GRY 108(3), **GRY 145(3), GRY 146(1)** ~~GRY 142(4)~~, GEO 363(4), PLN 367(3).
2. One course from: GRY 300(3), 305(3).
3. Related requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 220(3).
4. Public Affairs Capstone Experience. Three hours of Experience in Geosustainability course from: GRY 301(3) or 353(3) or 470(3) or another pre-approved course such as an internship, directed study, or similar field-based experience. The process for pre-approval by the program coordinator is described on the program website and must be completed in advance of the experience.
5. 12 additional hours with GRY, GEO, or PLN course code.
6. Minor required (or second major).
7. Specific Bachelor of Arts Degree Requirements

University level requirements:

1. General Education Program and Requirements
2. General Baccalaureate Degree Requirements