DEPARTMENT OF
HIGHER EDUCATION &
WORKFORCE DEVELOPMENT

New Program Report

Date Submitted:
05/12/2022

Institution
Missouri State University

Site Information

Implementation Date:
8/15/2022 12:00:00 AM

Added Site(s):

Selected Site(s):

Missouri State University, 901 South National, Springfield, MO, 65897

CIP Information

CIP Code:
450701

CIP Description:
A program that focuses on the systematic study of the spatial distribution and interrelationships of people, natural resources, plant and animal life. Includes instruction in historical and political geography, cultural geography, economic and physical geography, regional science, cartographic methods, remote sensing, spatial analysis, and applications to areas such as land-use planning, development studies, and analyses of specific countries, regions, and resources.

CIP Program Title:
Geography

Institution Program Title:
Geography and Sustainability (Comprehensive)

Degree Level/Type

Degree Level:
Bachelor's Degree

Degree Type:
Bachelor of Science

Options Added:

Collaborative Program:
N

Mode of Delivery

Current Mode of Delivery

Classroom

Student Preparation

Special Admissions Procedure or Student Qualifications required:
No special preparation is required.

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Specific Population Characteristics to be served:
MSU undergraduate students.

Faculty Characteristics

Special Requirements for Assignment of Teaching for this Degree/Certificate:
Advanced degrees in geography or a closely related discipline.

Estimate Percentage of Credit Hours that will be assigned to full time faculty:
Greater than 90% FT faculty.

Expectations for professional activities, special student contact, teaching/learning innovation:
Typical and normal faculty continued professional development, student advising, and course preparation.

Student Enrollment Projections Year One-Five

Year 1	**Full Time:** 6	**Part Time:** 0	
Year 2	**Full Time:** 3	**Part Time:** 1	
Year 3	**Full Time:** 4	**Part Time:** 1	**Number of Graduates:** 3
Year 4	**Full Time:** 5	**Part Time:** 1	
Year 5	**Full Time:** 6	**Part Time:** 2	**Number of Graduates:** 6

Percentage Statement:
n/a

Program Accreditation

Institutional Plans for Accreditation:
There is no academic accreditation program available in this field.

Program Structure

Total Credits:
120

Residency Requirements:
None beyond MSU requirements.

General Education Total Credits:
45

Major Requirements Total Credits:
61

Course(s) Added

COURSE NUMBER	CREDITS	COURSE TITLE
see attached	0	see attached

Free Elective Credits:
10

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Internship or other Capstone Experience:
Six credits in total, comprised of (A) the major requires a 3 credit "Experience in Geosustainability" which is fulfilled by GRY 301 (3), GRY 353 (3), GRY 470 (3) or another preapproved course such as in internship, directed study, or similary field-based experience. (B) The Public Affairs Capstone Experience is fulfilled by completion of GRY 508.

Assurances

I certify that the program is clearly within the institution's CBHE-approved mission. The proposed new program must be consistent with the institutional mission, as well as the principal planning priorities of the public institution, as set forth in the public institution's approved plan or plan update.

I certify that the program will be offered within the proposing institution's main campus or CBHE-approved off-site location.

I certify that the program will not unnecessarily duplicate an existing program of another Missouri institution in accordance with 6 CSR 10-4.010, subsection (9)(C) Submission of Academic Information, Data and New Programs.

I certify that the program will build upon existing programs and faculty expertise.

I certify that the program can be launched with minimal expense and falls within the institution's current operating budget.

I certify that the institution has conducted research on the feasibility of the proposal and it is likely the program will be successful. Institutions' decision to implement a program shall be based upon demand and/or need for the program in terms of meeting present and future needs of the locale, state, and nation based upon societal needs, and/or student needs.

Contact Information

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Phone: 573-751-1764

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NEW PROGRAM PROPOSAL FOR ROUTINE REVIEW

When finished, please save and email to: he.academicprogramactions@dhe.mo.gov

Sponsoring Institution: Missouri State University

Program Title: Geography and Sustainability (Comprehensive)

Degree/Certificate: Choose degree type

If other, please list: BS

Options: Geography, Sustainable Watershed Management, Sustainable Development

Delivery Site: Missouri State University – Springfield Campus

CIP Classification: 45.0701

Implementation Date: 8/15/2022

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.*

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

Frank Einhellig, Provost	Frank Einhellig	5/10/2022
Name/Title of Institutional Officer	Signature	Date

PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

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 required.

- Characteristics of a specific population to be served, if applicable.
  MSU undergraduate students

2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.
  Advanced degrees in geography or a closely related discipline

- 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.
  >90% full time faculty

- Expectations for professional activities, special student contact, teaching/learning innovation.
  Typical and normal faculty continued professional development, student advising, and course preparation.

3. Enrollment Projections

- Student FTE majoring in program by the end of five years.
  19

- Percent of full time and part time enrollment by the end of five years.
  ~95% Full time / ~5% Part Time

STUDENT ENROLLMENT PROJECTIONS

YEAR	1	2	3	4	5
Full Time	6 (100%)	3 (75%)	4 (80%)	5 (83%)	6 (75%)
Part Time	0 (0%)	1 (25%)	1 (20%)	1 (17%)	2 (25%)
Total	6 (100%)	4 (100%)	5 (100%)	6 (100%)	8 (100%)

4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.
  We anticipate 3 students will graduate in year three; and 6 students will graduate in year 5.

- Special skills specific to the program.

The overarching goal of this program is to train students to incorporate a robust interdisciplinary understanding of Sustainability principles within a cohesive scholarly framework—Geography. Graduates of the program will be able to synthesize ideas from a broad range of disciplines into solutions for the important issues in Geography and Sustainability that they will encounter as both citizens and professionals.

- Proportion of students who will achieve licensing, certification, or registration.
  N/A – widely recognized and relevant professional licensing, certification, or registration does not exist.

- 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 – Geography and Sustainability nationally normed tests are not available.

- Placement rates in related fields, in other fields, unemployed.
  Recent quantified placement rate data is not available. However, a high percentage of graduates go to work in the field directly after graduation or continue to graduate programs. We estimate a placement rate above 85%.

- Transfer rates, continuous study.
  Click here to enter text

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.
  There is no academic accreditation program available in this field.

6. Program Structure

A. Total credits required for graduation: 120

B. Residency requirements, if any:
   None beyond the MSU requirements

C. General education: Total credits:
   45-49

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: 57-61

Course Number	**Credits**	**Course Title**
GRY 100	3*	World Regional Geography
GRY 108	3*	Principles of Sustainability
GRY 109	1	Principles of Sustainability Discussion
GRY 142	4*	Principles of Weather and Climate
GRY 508	3	Philosophy of Geosustainability
GRY 351	3	Conservation of Natural Resources
GEO 363	4	Introduction to Geographic Information Science
PLN 367	3	Planning Methods
BIO 101 or BIO 122	3-4*	Biology in Our World **or** General Biology II
Statistics Course	3	Several course options
GRY 301, GRY 353, or GRY 470	3	Geography of the Ozarks **or** Field Experience in Geography (inside continental USA) **or** Field Experience in Geography (outside continental USA)
Core Sub-Total	33-34	
	-13	*General Education Courses. Subtracting so they are not counted twice (o in general education requirements and once in major core)
Core Total	**20-21**	
Geography Option	24	See below for course listing
Sustainable Watershed Management Option	24 – 26	See below for course listing
Sustainable Development Option	27	See below for course listing
Total Major	**44 – 48**	**Core + Option (57 – 61 counting the general education overlap)**

Geography and Sustainability (Comprehensive) (BS)

Major requirements (57-61 hours):

1. Core Requirements: GRY 100(3), GRY 108(3), GRY 109(1), GRY 142(4), GRY 508(3), GRY 351(3), GEO 363(4), PLN 367(3), BIO 101(3) or BIO 122(4)
2. No more than 7 credits 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 requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 302(3).
5. Complete 3 additional hours of *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 web site and must be completed in advance of the experience.

6. Complete one of the following options:
   a. **Geography** (24 hours)
      1. 6 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 code 300 or above.

   b. **Sustainable Watershed Management** (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: GRY 135(4), GLG 350(3), GLG 580(3), GEO 569(3), BIO 485(3), BIO 509(4), BIO 532(3) BIO 533(4), BIO 562(4)
      3. One Planning Framework course from: LAW 537(3), ECO 540(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)

   c. **Sustainable Development** (27 hours)
      1. Applied Sustainability Course: GRY 510(3) or REC 302(3)
      2. Regional Perspectives:
         (a) Complete one regional perspectives core class: GRY 305(3), GRY 322(3), GRY 325(3), GRY 300(3)
         (b) Complete 2 classes within one of the following regional options:
            (i) Asia: ECO 545(3), PLS 545(3), ANT 334(3), HST 571(3), HST 381(3)
            (ii) Middle East: HST 371(3), HST 544(3), PLS 443(3), PLS 569(3)
            (iii) Africa: HST 323(3), HST 334(3), HST 339(3), ANT 332(3), PLS 550(3), GRY 507(3)
            (iv) Latin America: HST 362(3), HST 364(3), PLS 548(3), ANT 336(3)
            (v) Other region subject to advisor approval
      3. Complete one Planning course: PLN 372(3) or PLN 571(3)
      4. Complete two Economics Understanding courses from: ECO 155(3), ECO 346(3), ECO 450(3), ECO 456(3) ECO 565(3), GRY 321(3)
      5. Complete two Policy related courses from: AGN 115(3), AGR 100(3), ANT 314(3), ANT 370(3) ANT 514(3), BIO 502(3), GRY 320(3), LAW 537(3), PLN 505(3), PLS 232(3), PLS 535(3), PLS 546(3), SOC 305(3), SOC 420(3), SOC 430(3), SOC 456(3), SOC 319(3),
7. Public Affairs Capstone Experience will be fulfilled by completion of GRY 508(3).

E. Free elective credits: 18-10
(sum of C, D, and E should equal A)

F. Requirements for thesis, internship or other capstone experience:
Six credits in total, comprised of: (A) the major requires a 3 credit "Experience in Geosustainability" which is fulfilled by 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. (B) The Public Affairs Capstone Experience is fulfilled by completion of GRY 508 (3).

G. Any unique features such as interdepartmental cooperation:
None

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

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

Please save and email this form to: he.academicprogramactions@dhe.mo.gov

Statement of Rationale

Geography and Sustainability Major

The proposed curriculum within the Geography program is designed to formally incorporate a Sustainability major and become the ***Geography and Sustainability*** major. Although other options certainly exist, Geography is a natural home for a sustainability major. The Principles of Sustainability have been included in the scholarly foundations of Geography for many decades, even before they were referred to as "sustainability". Geography is by its nature an interdisciplinary field that spans the humanities, social sciences, and physical sciences. As such, Geography is an ideal framework around which to structure an academic Sustainability program.

We are proposing a *Geography and Sustainability* program that is built around a core of Geography courses. The Geography core will provide students with the interdisciplinary framework that will be required to synthesize advanced principles of sustainability from a broad range of academic fields. *GRY 100 World Regional Geography* introduces students to the diversity Earth's physical features, human cultures, and the way they interact. *GRY 142 Introduction to Physical Geography* provides students with a basis in the workings of Earth's natural systems. GEO 363 Introduction to GIS and PLN 367 Planning Methods will train students in the analysis and presentation of environmental, social, and geographic data as well as key methods in social science.

Finally, the core will be bookended by two courses that will explicitly prepare students to approach their option area coursework through the lens of sustainability. The existing general education *GRY 108 Principles of Sustainability* course will be required early in the major program. This will be complemented near the completion of the major with a new course titled GRY 508 Geosustainability. GRY 508 will serve as a capstone for the major and the course will be designed to drive majors to synthesize their option area coursework into a cohesive interdisciplinary understanding of the Sustainable Development Goals.

The overarching goal of this program design is to ensure that students incorporate a robust interdisciplinary understanding of Sustainability principles within a cohesive scholarly framework—Geography—that ensures they can synthesize ideas from a broad range of disciplines into solutions for the important issues in Geography and Sustainability that they will encounter as both citizens and professionals.

Estimated Costs for the First Five Years

Geography and Sustainability Major

We estimated that this new program and the associated program revisions within Geography will have no direct costs for the department, college, or university. GGP hired a new faculty member in 2021 and is coincidentally searching for two new positions in AY22. These positions are to replace retiring faculty and not the direct result of the proposed curricular changes. However, in anticipation of these changes GGP has defined the scope of the positions such that the successful candidates will be able to contribute to and strengthen the proposed programs.

Geography and Sustainability (Comprehensive) (BS)—REVISED CATALOG
Major requirements (57-61 hours):

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

1. Core requirements: 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 requirement: AGR 330(3) or MTH 340(3) or PSY 200(3) or QBA 237(3) or REC 328(3) or SOC 302(3).
5. Complete three additional hours of *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).

Complete one of the following options:

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.

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).

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 305(3), GRY 322(3), GRY 325(3), GRY 300(3).
    b. Two courses within one of the following regional options:
        i. Asia: ANT 334(3), ECO 345(3), HST 571(3), HST 381(3), PLS 545(3).
        ii. Middle East: HST 371(3), HST 544(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 372(3) or PLN 571(3).
4. Two Economics Understanding courses from: ECO 155(3), ECO 346(3), ECO 450(3), ECO 456(3), ECO 565(3), GRY 321(3).
5. Two Policy related courses from: AGN 115(3), ANT 314(3), ANT 370(3) ANT 514(3), AGR 100(3), BIO 502(3), GRY 320(3), LAW 537(3), PLN 505(3), PLS 232(3), PLS 535(3), PLS 546(3), SOC 305(3), SOC 319(3), SOC 420(3), SOC 430(3), SOC 456(3).