

The John Knoblock Faculty Senate Office Ashe Administration Building, #325 1252 Memorial Drive Coral Gables, Florida 33146

facsen@miami.edu fs.miami.edu Ph: 305-284-3721 Fax: 305-284-5515

MEMORANDUM

To: Julio Frenk, President

From: Linda L. Neider

Chair, Faculty Senate

Date: January 29, 2021

Subject: Faculty Senate Legislation #2020-39(B) – Name Change and Curriculum Change for

the Minor in Geography TO the Minor in Geography and Sustainable Development,

The Faculty Senate, at its January 27, 2021 meeting, had no objections to the approval of the name change and curriculum change for the Minor in Geography *to* the Minor in Geography and Sustainable Development in the College of Arts and Sciences, Department of Geography and Regional Studies. This change will convey modernity and relevance, attract and maintain new students, and become more broadly appealing to current and future undergraduate students.

This legislation is now forwarded to you for your action.

LLN/va/rh

cc: Jeffrey Duerk, Executive Vice President and Provost Leonidas Bachas, Dean, College of Arts and Sciences José Maria Cardoso da Silva, Professor

| CAPSULE: Faculty Senate Legislation #2020-39(B) – Name Change and Curriculum Change for the Minor in Geography TO the Minor in Geography and Sustainable |
|--|
| Development, College of Arts and Sciences, Department of Geography and Regional |
| Studies |
| APPROVED: DATE: 2/17/21 (President's Signature) |
| OFFICE OR INDIVIDUAL TO IMPLEMENT: Dean Bachas, College of Arts and Sciences |
| EFFECTIVE DATE OF LEGISLATION: IMMEDIATELY (Pending any further Board of Trustees approval) |
| NOT APPROVED AND REFERRED TO: |
| REMARKS (IF NOT APPROVED): |

Program Change Request

Date Submitted: 03/09/20 4:22 pm

Viewing: Minor in Geography and Sustainable

Development: GEOG_MN

Last edit: 01/11/21 1:46 pm

Changes proposed by: Diana Ter-Ghazaryan (d.terghazaryan)

Catalog Pages Using this Program

Minor in Geography

In Workflow

- 1. PG Assessment and Accreditation
- 2. PG GEG UG Director
- 3. PG GEG Chair
- 4. PG AS Assoc Dean
- 5. PG AS UG Sr Assoc
 Dean
- 6. PG AS Dean
- 7. PG University Accreditation
- 8. PG FS Office for UCC
- 9. PG University
 Curriculum
 Committee
- 10. PG University
 Accreditation
- 11. PG FS Office for GWC
- 12. PG FS GWC
- 13. PG Faculty Senate
- 14. PG FS Office for President
- 15. PG Registrar

Approval Path

- 1. 03/09/20 3:55 pm
 Jenny Vargas
 (j.zwanziger):
 Rollback to Initiator
- 2. 03/20/20 12:12 pm Patty Murphy (pxm491): Approved for PG Assessment and Accreditation

3. 03/20/20 4:09 pm Jose Maria Cardoso da Silva (jxc1446): Approved for PG

GEG UG Director

- 4. 03/20/20 4:10 pm Jose Maria Cardoso da Silva (jxc1446): Approved for PG GEG Chair
- 5. 03/27/20 7:12 pm Charles Mallery (cmallery): Approved for PG AS Assoc Dean
- 6. 05/05/20 1:10 pm
 Jennifer Ferriss-Hill
 (j.ferrisshill):
 Approved for PG AS
 UG Sr Assoc Dean
- 7. 09/01/20 6:00 pm Leonidas Bachas (I.bachas): Approved for PG AS Dean
- 8. 09/22/20 3:23 pm
 Patty Murphy
 (pxm491): Approved
 for PG University
 Accreditation
- 9. 09/28/20 11:21 am
 Robyn Hardeman
 (rhardeman):
 Approved for PG FS
 Office for UCC
- 10. 10/02/20 9:49 am
 David Chin (dchin1):
 Approved for PG
 University
 Curriculum
 Committee

Page 3 of 29 11. 01/11/21 1:47 pm

Patty Murphy
(pxm491): Approved
for PG University
Accreditation

Please list the authors of this proposal including name, rank/title, program/department, and school.

Proposer(s) Name

Diana Ter-Ghazaryan (on behalf of Dr. Cardoso da Silva)

Lecturer

Department of Geography and Regional Studies

Change Type

All Other Changes

Provide a brief

summary of the

change

This is a proposal to rename this academic program, to update the program SLO, and to realign its curriculum. The proposed name of the program is "Minor in Geography and Sustainable Development."

Career

Undergraduate

Academic Structure

| School/ College | Department |
|------------------------------|------------|
| College of Arts and Sciences | Geography |

Plan Type Minor

Who can take this program? Any Student at University of

Miami

Proposed Plan Code

Plan Name Minor in Geography and Sustainable Development

Will there be any subcomponents within the program such as concentrations, specializations, thesis/non-thesis options, or tracks?

No

Effective Term Spring 2021

First Term Valid Fall 2020

1/11/2021

Program Instruction Mode In Person

Where is the program offered?

Coral Gables Campus

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Please provide the % of instruction at each location.

Total Credits

15

Areas of Knowledge

People & Society

STEM

To Be Published in the Academic Bulletin

Program Overview

The minor in Geography and Sustainable Development program is for students who would like to have a good understanding of the most fundamental concepts of Geography and how these concepts are applied to sustainable development. This program is suitable for students pursuing a degree in another field, and also have a general interest in Geography and Sustainable Development.

Student Learning Outcome:

Foundational Knowledge (SLO1): Students will describe the most fundamental concepts and theories in geography and sustainable development, including the spatial patterns and processes of human and physical phenomena, the interactions between people and nature, and the challenges of simultaneously achieving the goals of human prosperity and environmental conservation worldwide.

Curriculum Requirements

Curriculum Requirements

| Select One: | | 3 |
|-----------------------|--|--------|
| GEG 101 | Digital Earth | |
| <u>GEG 105</u> | World Regional Geography | |
| <u>GEG 110</u> | Introduction to Human Geography | |
| Required | | |
| <u>GEG 120</u> | Physical Geography | 3 |
| GEG 331 | Sustainable Development | 3 |
| Geography Elective | es | 6 |
| Total Credit Hours | | 15 |
| 1 Students must co | mplete at least 15 credit hours in Geography with a grade of C- or h | igher. |
| 2 At least 6 credit h | ours must be at the 300-level or higher. | |

Rationale

Rationale

This proposed change has two goals. The **first goal** is to realign the name of this academic program with the research and educational agenda of our faculty, who apply geographic concepts and methods to inform policies and practices that advance sustainable development around the world. The **second goal** is to reaffirm the orientation of our curriculum and align it to students' interest in sustainable development and communicate that this academic program is commensurate with the pursuit of their professional goals.

The recent evolution of K-12 education has resulted in increasingly fewer American students understanding what geographers do and what the academic discipline of Geography offers, particularly at the college level. As a consequence, a Geography undergraduate degree is seldom considered as a viable career pathway, despite offering some of the broadest and highest-earning career options across the social and natural sciences. By updating the name of this program to incorporate the term "sustainable development" and adding a course dedicated to sustainable development policies and practices (GEG 331), we will convey modernity and relevance, attract and maintain new students, and become more broadly appealing to current and future undergraduate students and their parents.

Market Demand

Based on a survey of 10% of UM undergraduate students executed by our department, we determined that "sustainability" and "sustainable development" are attractive terms to use in our course names and programs. Our experience also advises us that students choose geography as a major or minor because of the discipline's broad applications, and especially its connections to the emerging field of sustainable development. Connecting the discipline with a field of application, our program will offer students high quality, high impact geographic and sustainable development teaching and research opportunities.

We believe that with targeted promotion and marketing, demand for this undergraduate program will increase and be robust for the next several decades.

Relationship to Other Programs

Because we are just renaming our academic program and realigning its curriculum, no change is necessary in the existing relationships with other programs.

Library Resources Available and Needed to Support the Program

Because we are just renaming this academic program and realigning its curriculum, no additional library resources will be needed. We will continue working with our subject librarians on maintaining acquisition of print resources, digital resources, and geospatial data that students in this program will need.

Laboratory Facilities, Equipment, and Space Available and Needed to Support the Program

Because we are just renaming our academic program and realigning its curriculum, no additional laboratory facilities, equipment, or space will be needed. The Department of Geography and Regional Studies currently oversees the Campo Sano GIS Lab, which is a state-of-the-art facility and can accommodate the expected significant influx of students in this renamed program.

Other Resources Available or Needed to Support the Program

No additional resources are needed.

| Curriculum | |
|------------------------------------|---|
| Program Curriculum | |
| Upload Syllabi for Any New Courses | |
| CIP Code | |
| Proposed CIP Code | |
| Faculty | - |
| Program Directors | |
| Upload CV(s) | |
| Program Faculty | |

Documents

Attach Supporting Documentation <u>GEG Supporting Documents.pdf</u>

Reviewer

Comments

Leonidas Bachas (I.bachas) (09/01/20 6:00 pm): The Arts and Sciences faculty voted to approve this proposal on April 27, 2020. I support the proposed changes to the minor

Page 7 of 29

Patty Murphy (pxm491) (09/22/20 3:16 pm): As shown in the attached supporting documentation from the Chair, the Geography and Regional Studies department faculty voted to approve the proposed name change on 9/17/2019 and the curricular changes on 2/28/2020.

Patty Murphy (pxm491) (09/22/20 3:17 pm): The proposed change does not represent a significant departure from the currently approved program. Therefore, notification to or approval from SACSCOC is not required. Delete Comment

David Chin (dchin1) (10/02/20 9:49 am): The UCC CONDITIONALLY SUPPORTS the program-change proposal provided that the proponent identifies a multiple-course component of sustainability in the required and elective coursework. Concerns were raised that the only obvious sustainability class in this program is GEG 331, Sustainable Development, and having only one class in sustainability would not be sufficient to have this specialty area in the title of the minor. It was not clear what other sustainability classes were in the proposed curricula, and whether the program electives would require additional sustainability classes.

Patty Murphy (pxm491) (01/11/21 1:46 pm): A revised matrix is included in the supporting documentation as requested by the UCC as well as a copy of the powerpoint presentation made to the UCC

Key: 35

Consent-A-S-name chg-curr chg-Minor-GEOG 1/27/2021 FS Meeting Page 8 of 29



Department of Geography and Regional Studies 1300 Campo Sano Building P.O. Box 248067 Coral Gables, FL 33124-4401

March 16, 2020

To:

Dr. Leonidas Bachas, Dean, College of Arts and Sciences

From: Dr. José Maria Cardoso da Silva, Professor and Chair,

Department of Geography and Regional Studies

This memo confirms that on September 27, 2019, the faculty of the Department of Geography and Regional Studies voted in support of appending and Sustainable Development to the names of the Department's existing BA and BS degrees, as well as the minor in Geography, so that all majors and minors will be named Geography and Sustainable Development. In addition, on February 28, 2020, the Department voted to promote slight changes in the core curriculum of these three degrees, such as outlined in the proposal.

Our faculty is committed to promoting globally-relevant education that prepares students for careers that address society's grand challenges. We forward this proposal to you for review by the College of Arts and Sciences faculty.

Sincere

fessor and Chair

Department of Geography and Regional Studies

UNIVERSITY OF MIAMI SCHOOL of ARCHITECTURE



Office of the Dean P.O Box 249178 Coral Gables, Fl 33124 Phone: 305-284-5000 Fax: 305-284-5245 www.arc.miami.edu

April 9, 2020

Re: Letter of Support for B. A and B.S. in Geography and Sustainable Development—Program renaming and reorientation.

I hereby confirm my support for the proposal submitted by the Department of Geography and Regional Studies for renaming and realigning the B.A. and B.S. programs.

The changes proposed underscore the Department's commitment to sustainability and introduce a projective element, grounding the study of Geography in project-based analysis and problem solving.

Training students to "propose solutions that advance sustainable development worldwide," brings the realigned programs closer to the School of Architecture's own mission and project-based learning, pointing to potential collaboration on joint undergraduate majors that combine analysis and design. I have already discussed such possibilities with Department Chair Jose Maria Cardoso da Silva, including a joint B.S. in Urban Studies/Planning, and will continue to explore synergies that may result from this realignment.

Sincerely yours,

Rodolphe el-Khoury

Dean and Professor of Architecture & Urbanism

Ph: 305-284-5000 Fax: 305-284-5245 www.arc.miami.edu

Consent-A-S-name chg-curr chg-Minor-GEOG 1/27/2021 FS Meeting Page 10 of 29



Department of Geography and Regional Studies 1300 Campo Sano Avenue P.O. Box 248067 Coral Gables, FL 33146-4401



March 23, 2020

To: Prof. Charles Mallery, Associate Dean for Graduate and

Administrative Services, College of Arts & Sciences

From: Prof. José Maria Cardoso da Silva, Professor and Chair,

Department of Geography and Regional Studies

RE: Proposed GEG degree name changes

Dear Prof. Mallery:

At Professor Ira Sheskin's request, the Geography representative on the CCC, I send this memo to provide additional information on the name changes that we are proposing for the Department of Geography's undergraduate programs.

"Sustainable Development" is most commonly defined as development that meets present needs without compromising the needs of future generations. In other words, sustainable development aims to promote economic prosperity, social inclusion, environmental conservation, and good governance everywhere. Global priorities have been codified in the 17 <u>Sustainable Development Goals</u> (SDGs) which provide a shared blueprint for future peace and prosperity.

Geography is the study of places and the relationships between people and their environments. Geographers explore both the physical characteristics and human society on the earth's surface. They also examine how human culture interacts with the natural environment and the manner in which locations and places impact people. Geography seeks to understand where things are found, why they are there, how they develop and change over time, and what needs to be done to ensure good living standards for everyone, everywhere.

The longstanding, strong link between Geography and Sustainable Development has been discussed in the academic world for decades (e.g., Purvis and Grainger 2004; Whitehead 2006). In fact, Geography has been considered as the most fundamental discipline for students interested in pursuing careers in Sustainable Development because designing and implementing Sustainable Development Goals requires the core strengths of the discipline of Geography: integrative, place-based thinking at multiple geographic scales. The linkage between Geography and Sustainable Development has been recognized in the US and abroad, as several departments of Geography have formalized research and teaching on Sustainable Development among their major goals (see Table 1 for details). The wave of undergraduate programs that have launched across the country are more likely to be housed in a geography department than any other traditional discipline. We are following national trends and remain the department best equipped to educate young people about sustainable development.

The Department of Geography and Regional Studies at the University of Miami has embraced Sustainable Development as its <u>unifying research theme</u> for several years. We have been offering courses that are strongly linked to the SDG agenda related to **global health**, **urbanization**, **food and water**, **population dynamics**, **environmental conservation**, and **climate change**. No other unit offers comparable breadth and depth related to the SDGs. Our students also receive cutting-edge training in modern geospatial methods and analytical tools that allow them to integrate, visualize, and model socioenvironmental issues.

Our department was the first in the College to offer an undergraduate course dedicated to sustainable development. In addition, we have been: (1) mainstreaming and reinforcing the key concepts of sustainable development in the syllabi of our core courses, (2) expanding our elective courses to explore in-depth important components of sustainable development (e.g., Sustainable Food; Sustainable Cities; Biogeography and Conservation; Global Human Rights; Climate Change and Security), and (3) adding new courses that allow the students to explore social problems by using geospatial methods and tools (e.g., GIS for Health and Environment; Crime Mapping and Analysis; GIS and Environmental Modelling). More recently, we collaborated with the College of Architecture to offer a Master in Professional Sciences in Urban Sustainability and Resilience. We are well equipped to offer an innovative, diverse and flexible curriculum to students who are interested in both Geography and Sustainable Development. The student learning outcomes described in the proposals are our commitment to preparing professionals who will tackle the enormous challenges before us.

We hope that this memo provides additional context for the College Curriculum Committee to support the addition of *Sustainable Development* to our Geography degrees with modest changes to our undergraduate curriculum. This is a natural outcome of a process that has evolved for several years. We are happy to provide more information if requested.

Sincerely,

José Maria Cardoso da Silva, Ph.D. Professor and Chair, Department of Geography and Regional Studies

References

Purvis, Martin, and Alan Grainger, eds. 2004. Exploring Sustainable Development: Geographical Perspectives. Routledge.

Whitehead, Mark. 2006. Spaces of Sustainability. 1st edition. Routledge.

Attachments

Table 1. Sample Programs in Sustainability or Sustainable Development Administered by Departments of (or Inclusive of) Geography

Table 1. Sample Programs in Sustainability or Sustainable Development Administered by Departments of (or Inclusive of) Geography

institutions have geography departments (and half are in CA). A longer list of sustainability and sustainable development degrees are listed here, and while a few are housed in departments. Among US News' top university rankings, the only top-25 institutions with a geography program are Dartmouth, UCLA, and Berkeley. In the top-50, only 11-12 sustainability programs than geography/environment. So this table should not be interpreted as aspirational peers; rather it speaks volumes about the decisions institutions There are few examples from high-ranking institutions because the overwhelming majority of private schools, and many high-ranking public schools, do not have geography business or ecology programs, etc., many sustainability degrees are organized as interdisciplinary programs. There is no other discipline that more commonly houses make—particularly public schools with significant budgetary constraints—when initiating sustainability degrees that yield the biggest "bang for the pedagogical buck."

| T c 4 4 4 4 4 5 0 000 | Donoutwood | | Domos |
|-------------------------------------|---|-------------------|---|
| | | | an Igan |
| University of Texas Austin | Geography and the Environment | Austin, TX | B.A. Sustamability |
| University of Oklahoma | Geography and Environmental Sustainability | Norman, OK | B.A./B.S. Environmental Sustainability |
| University of St. Andrews | Geography and Sustainable Development | St. Andrews, UK | B.Sc. Sustainable Development |
| University of Iowa | Geographical and Sustainability Sciences | Iowa City, IA | B.S. Sustainability Science |
| Miami University | Geography | Oxford, OH | B.A. Geography and Sustainable Development |
| University of Oregon | Geography | Eugene, OR | B.A. Geography – Economy, Environment, & Sustainability |
| University of British Columbia | Geography | Vancouver, CA | B.A. Environment & Sustainability |
| University of Massachusetts Amherst | Geography | Amherst, MA | B.A. Geography – Environmental Geography & Sustainability |
| University of Tennessee Knoxville | Geography | Knoxville, TN | B.A. Sustainability |
| San Diego State University | Geography | San Diego, CA | B.A. Environment, Sustainability, & Policy |
| University of Colorado Denver | Geography & Environmental Sciences | Denver, CO | B.A. Environment, Society & Sustainability |
| Salem State University | Geography and Sustainability | Salem, MA | B.A. and B.S. Geography & Sustainability |
| University of Texas San Antonio | Political Science and Geography | San Antonio, TX | B.A. Geography and Environmental Sustainability |
| Western Oregon University | Geography and Sustainability | Monmouth, OR | B.A. Sustainability |
| University of Northern Colorado | Geography, GIS, and Sustainability | Greeley, CO | B.A. Environmental & Sustainability Studies |
| Indiana State University | Earth and Environmental Systems | Terre Haute, IN | B.A./B.S. Geography and Sustainability |
| | (Anthropology, Geography, Geosciences, GIS) | | |
| UNC Greensboro | Geography, Environment, and Sustainability | Greensboro, NC | B.A. Environment & Sustainability |
| University of Minnesota Duluth | Geography and Philosophy | Duluth, MN | B.A. Environment, Sustainability, & Geography (emphasizing Sustainable Development) |
| Northern Michigan University | Earth, Environmental, & Geographical Sciences | Marquette, MI | B.A. Environmental Studies & Sustainability |
| Shippensburg University | Geography and Earth Science | Shippensburg, PA | B.S. Sustainability |
| SUNY Oneonta | Geography & Environmental Sustainability | Oneonta, NY | B.A. Environmental Sustainability |
| Ohio University | Geography | Athens, OH | B.A./B.S. Geography – Urban Planning & Sustainability |
| University of Southern Mississippi | Geography | Hattiesburg, MS | B.S. Geography – Sustainable Development |
| Slippery Rock University | Geography, Geology, and the Environment | Slippery Rock, PA | B.S. Geography: Environmental Studies and Sustainability |
| Cal State East Bay | Anthropology, Geography, & Environ. Studies | Hayward, CA | B.S. Geography – Resources and Sustainability |
| Stephen F Austin State University | Anthropology, Geography & Sociology | Nacogdoches, TX | B.A. Sustainable Community Development |
| Pittsburg State University | History, Philosophy, and Social Sciences | Pittsburg, KS | Environmental Geography & Sustainability |

Note: FIU's School of Environment, Arts, and Society offers an online B.A. in Sustainability and the Environment (FIU lacks a formal geography department).

Sustainable Development Goals and Geography Courses

The purpose of this document is to show the strong linkage between the thematic courses offered by the Department of Geography and Regional Studies and the UN Sustainable Development Goals (see Table 1)

In addition to these courses, the Department offers several other courses that have students working at the interface between Geography and Sustainable Development (such as GIS, Research Methods, Spatial Statistics). In GIS courses, for example, students are required to work on a semester project, and many choose a topic related to sustainable development.

8 D **@** lazards and Disasters: the Nature-Society Interface Seography and Development in South America SUSTAINABLE G A DEVELOPMENT Crime Mapping and Analysis Drinking Water: Past, Present, and Future opulation, Sustainability, and the Media Geography and Development in Africa eminar in International Development 'olitical Geography of the Middle East opulation, Health, and Environment CORE THEMATIC COURSES Introduction to Human Geography limate Change and Public Health limatology and Extreme Weather Health and Medical Geography mmigrant and Refugee Health mmigration to the United States iogeography and Conservation **Conservation and Development** GIS for Health and Environment eminar in Urban Management **Seopolitics and Peacebuilding** Climate Change and Security eminar in Urban Geography Conservation Biogeography Jrban Sustainability in Asia **Norld Regional Geography** invironmental Geography Sustainable Food Systems **ustainable Development** China in the 21st Century Global Political Economy Cities in Time and Space World Urban Geography conomic Geography Global Human Rights **Jetropolitan Miami** hysical Geography ELECTIVE COURSES Crime and the City Sustainable Cities

Table 1. Congruency matrix of geography course curricula with the Sustainable Development Goals

UNIVERSITY OF MIAMI
ABESS CENTER
for ECOSYSTEM
SCIENCE & POLICY



P.O. Box 248203 Coral Gables, Florida 33124 Phone: 305.284.8259 www.abess.miami.edu

April 2, 2020

Reference: Abess Center support for Geography name change

Greetings,

The Abess Center for Ecosystem Science and Policy and its Faculty Advisory Committee have no major issues re: the GEG name change and support the proposed changes.

Should you need anything further, please let us know. I can be reached at 305.528.6319 or kbroad@rsmas.miami.edu.

Sincerely,

Wh Bl

Kenneth Broad, Ph.D.

Director, Abess Center for Ecosystem Science and Policy, University of Miami Professor, Marine Ecosystems and Society, University of Miami Co-Director, Center for Research on Environmental Decisions, Columbia University

COLLEGE of ENGINEERING



Antonio Nanni, PhD, PE, FASCE, FACI, FIIFC 1251 Memorial Drive Inaugural Senior Scholar Professor & Chair Civil, Architectural & Environmental Engineering

MEB Room 325 Coral Gables, FL 33146

Ph: 305-284-3461 Fax: 305-284-3492 nanni@miami.edu

To: Leonidas Bachas, Ph.D.

Dean, College of Arts and Sciences

From: Antonio Nanni, CAE Chair

Subject: Rename Undergraduate Geography undergraduate programs

Date: April 1, 2020

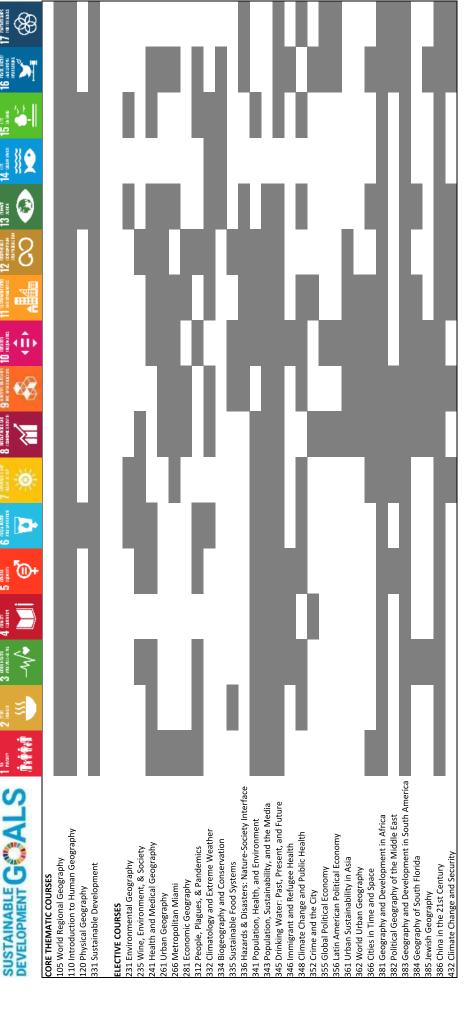
All Non.

This letter confirms the support of the Department of Civil, Architectural and Environmental Engineering (CAE) for the changes in the names of the undergraduate programs offered by the Department of Geography and Regional Studies.

Regards,

REVISED MATRIX SUBMITTED PER UCC REQUEST

Table 1. Congruency matrix of geography course curricula with the Sustainable Development Goals



Presentation Made to UCC

Geography and Sustainable Development: A Natural Pedagogical Fit



to address the world's interdisciplinary toolkit a global,

biggest challenges advance

advance sustainable development

geography methods and

concepts

geography and sustainable development



brogram goals

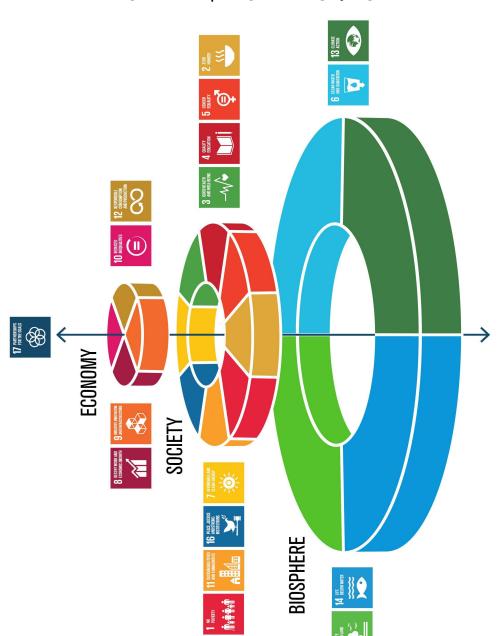
SUSTAINABLE GONALS DEVELOPMENT

biosphere, society, economy

consumption & production industry, innovation, and inequalities; responsible infrastructure; reduced

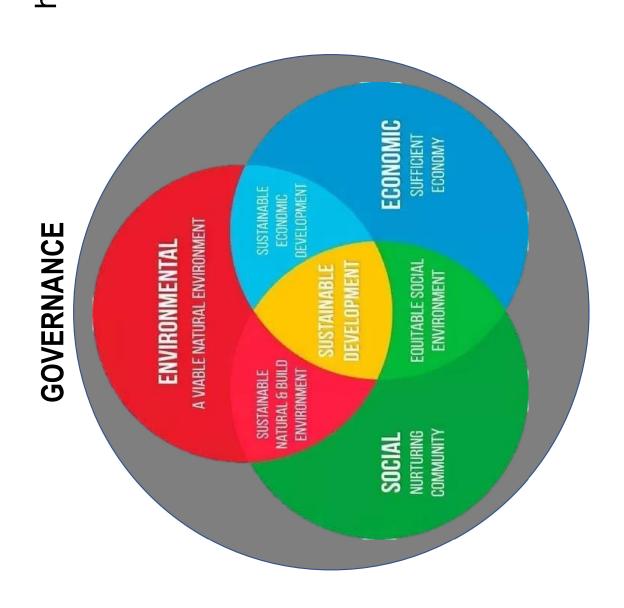
justice, peace, human health, no hunger, sustainable cities, education, gender equality poverty eradication, social

protect terrestrial & aquatic ecosystems, climate action, water & sanitation, basic earth systems



sustainable development

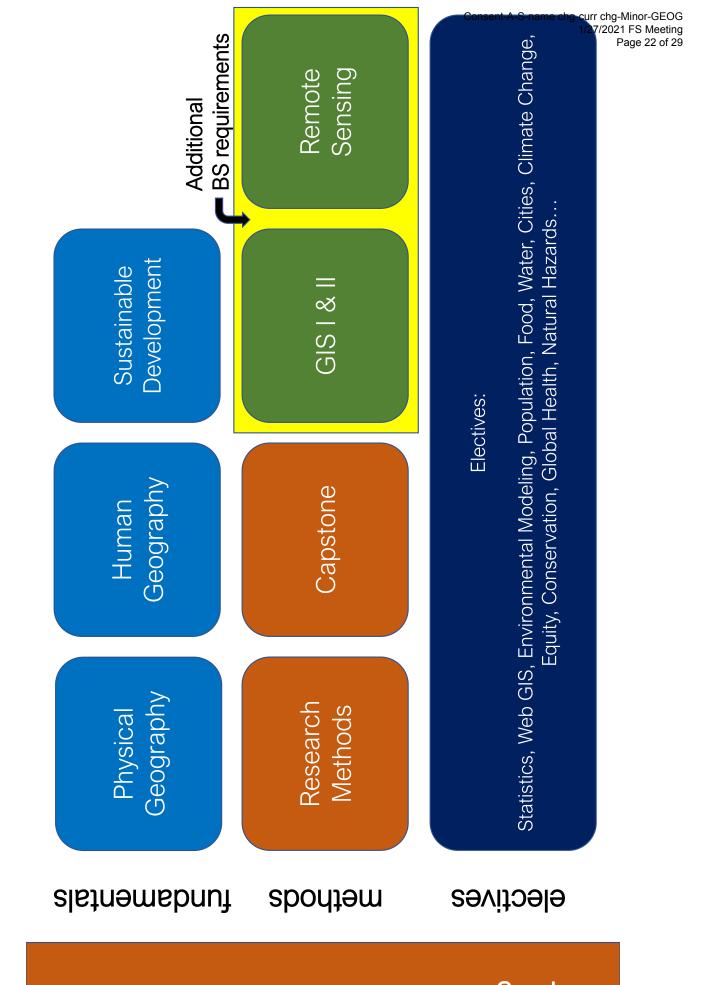
sustainable development



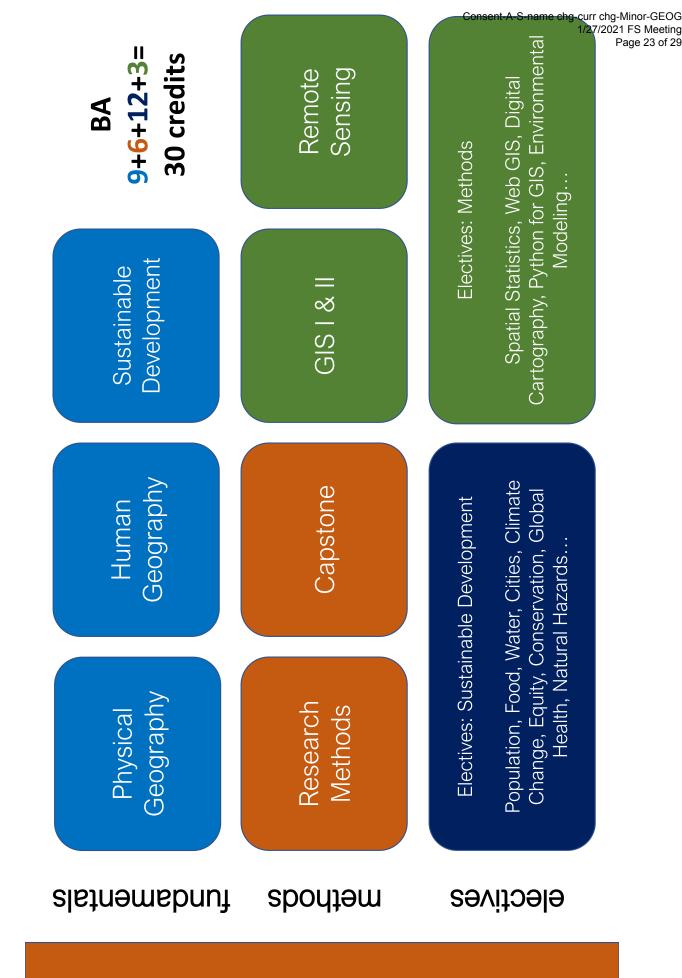
human-environment interactions, a.k.a. geography

cities
geopolitics
food
water
energy
landscape
gender
climate
health
planning
equity

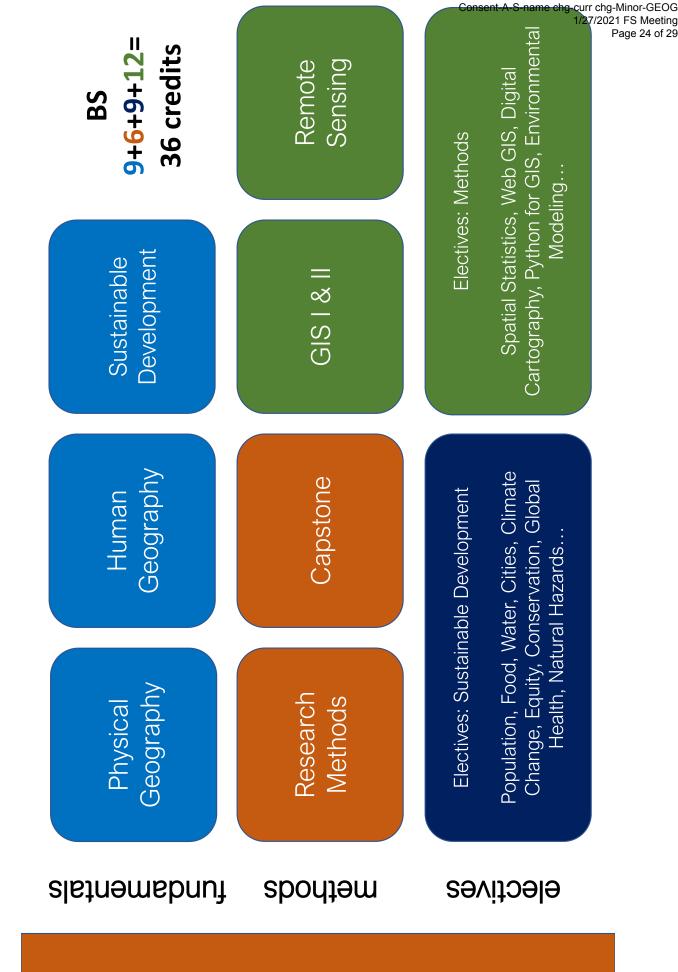
program structure: before feedback



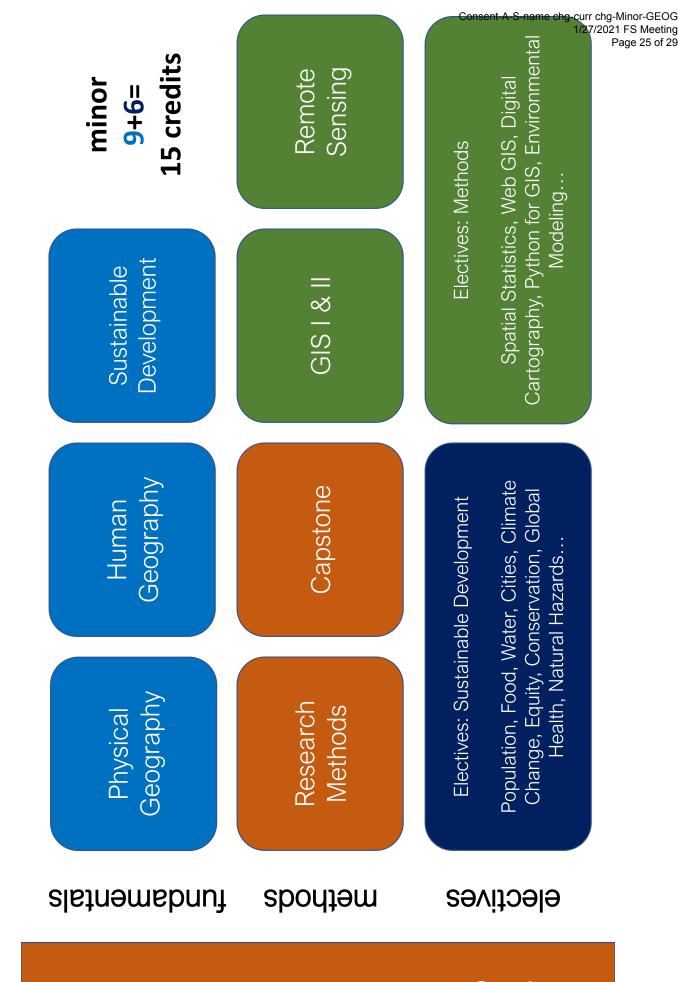
program structure: revised BA



program structure: revised BS



program structure: revised minor





What's in a Name? Undergraduate Student Perceptions of Geography, Environment, and Sustainability Key Words and Program Names Stoler et al. 2020 Annals of the American Association of Geographers

| Analytics | Environment | Global | Regional |
|----------------|------------------------------|---------------------|-------------------------|
| Big Data | Food and Agriculture | Health | Social Media |
| Cities | Gender | History | Society |
| Climate Change | Geographic | Human Rights | Spatial Analysis |
| Conservation | Information Systems (GIS) | Hydrology | Sustainability |
| Crime | Geography | Immigration | Technology |
| Culture | Geomorphology | Medical | Transportation |
| Development | Geomolitics | Miami | Urban |
| Digital | Geoscience | Mobility | Water |
| Economics | | Population | |

*Based on 2018-2019 surveys from 4,388 undergraduates across 4 universities (including UM)

Initiated by GEG MPS in Urban Sustainability and Resilience

4 core courses (2 GEG + 2 ARC) 12 credits of electives Undergraduate Certificate in Sustainability Human Impacts on Natural World (3) Environmental Politics & Policy (3) Social Implications (3)

rehome to GEG In discussions for better fit with ECS to 10 Sustainable Business Core Courses (Business School) 9 credits of electives from 13 departments 9 credits of electives from RSMAS & CAE MS in Sustainable Business

programs at ofher

