

Program Change Request

New Program Proposal

Date Submitted: 02/27/25 9:13 am

Viewing: : **Climate Resilience and Adaptation Minor**

Last edit: 03/26/25 11:43 am

Changes proposed by: jbazaz

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

Yes

Requestor:

Name	Extension	Email
James Kinter	5302	jkinter@gmu.edu

Effective Catalog: 2025-2026

Program Level: Undergraduate

Program Type: Minor

Title: Climate Resilience and Adaptation Minor

Banner Title: Clim Resilience Adaptat Minor

Is this a retitling of an existing program? No

Registrar's Office Use Only –

In Workflow

1. **AOES Chair**
2. **ESP UG Committee**
3. **ESP Chair**
4. **SC Curriculum Committee**
5. SC Assistant Dean
6. Assoc Provost- Undergraduate
7. Registrar:Create Code
8. Registrar-Programs: Duration
9. Registrar-Programs

Approval Path

1. 02/26/25 4:17 pm
Mark Uhen (muhen): Rollback to Initiator
2. 02/27/25 9:15 am
Mark Uhen (muhen): Approved for AOES Chair
3. 02/27/25 9:16 am
Yoonsung Kim

Program Start Term**Registrar/OAPI Use Only – SACSCOC Status****College/School:** College of Science**Department / Academic Unit:** Atmospheric, Oceanic, & Earth Sciences**Jointly Owned Program?** Yes**Participating Colleges**

	College
1	College of Science

Participating Departments

	Department
1	Environmental Science & Policy

Justification

What: Creating a new minor.

Why: Climate-related disasters in the United States resulting in losses exceeding \$1 billion each are increasing, with 27 such events in 2024 and total losses over the past quarter century of \$2.362 trillion (\$2.915 trillion since 1980), in inflation-adjusted 2024 dollars (<https://www.ncei.noaa.gov/access/billions/>). Virginia alone has suffered hundreds of multi-million-dollar disasters resulting from extreme weather and climate change. The increasing severity and frequency of climate change impacts on communities worldwide have created a need for a climate-literate workforce: professionals with the knowledge and skills required to design, develop, and implement climate adaptation and resilience solutions.

To address this need, a new undergraduate minor in Climate Resilience and Adaptation is proposed that will provide students with a transdisciplinary and action-oriented view of one of the most serious challenges facing humanity today. The Climate Resilience and Adaptation minor will equip students with the skills they need to understand: how and why the climate is changing; the current and expected impacts of that change; how to develop and assess adaptation strategies to enhance communities' climate readiness; and how to help societies

(ykih): Approved for ESP UG Committee

4. 02/27/25 9:17 am

Gad Perry

(gperry23):

Approved for ESP Chair

and ecosystems gain resilience to future impacts of climate change for generations to come. Climate resilience and adaptation encompass a wide range of disciplines; environmental science, economics, public policy, public health, and engineering are just a few. Therefore, the minor includes 2 core classes (1 each from AOES, including a lecture and lab section, and ESP departments) and 3 or more electives in subject(s) of interest to the student. The minor also includes practical experience which can be an internship, independent research, or capstone course.

Catalog Published Information

Total Credits Required: Total credits: 16-18

Registrar's Office Use Only - Program Code:

Registrar/IRR Use Only – Program CIP Code

Admission Requirements:

Program-Specific Policies:

Policies

Eight credits of coursework must be unique to the minor. For policies governing all minors, see [AP.5.3.4 Minors](#).

Degree Requirements:

Students should refer to the [Admissions & Policies](#) tab for specific policies related to this program.

Students must successfully complete the following coursework with a minimum GPA of 2.00.

Foundation Courses

CLIM 101 & CLIM 103	Global Warming: Weather, Climate, and Society (Mason Core) and Global Warming: Weather, Climate, and Society Laboratory (Mason Core)	4
EVPP 490	Special Topics in Environmental Science and Policy (when the topic is "Climate Change Adaptation Planning and Assessment")	3
Total Credits		7

Practical Experience

Students have the option of completing this requirement via an internship, an independent research project, or a capstone course: 3

Internship ^{1,2}

ANTH 495	Internship
BUS 492	Internship in Business ³
CLIM 409	Research Internship
COMM 450	Internship in Communication
ECON 493	Capstone Internship (Mason Core)
EVPP 494	Internship
GCH 498	Global and Community Health Internship
GOVT 480	Internship
INTS 490	Internship
SOC 416	Internship in Sociology I (Mason Core)
Independent Research Project ¹	
ANTH 450	Ethnographic Research Methods
CEIE 490	Civil Engineering Senior Design Project I (Mason Core)

CEIE 491	Civil Engineering Senior Design Project II (Mason Core)
CONF 370	Internship Field Experience
CONF 375	Special Programs Field Experience
CONF 385	International Field Experience
GCH 499	Independent Study in Global and Community Health
INTS 498	Experiential Learning
SYST 490	Senior Design Project I
SYST 495	Senior Design Project II (Mason Core)
Capstone Course	
EVPP 480	Sustainability in Action (Mason Core)
GCH 465	Community Health Capstone (Mason Core)
GEOL 420	Earth Science and Policy (Mason Core)
GEOL 480	Internship
GGG 485	Capstone in Geography and Geoinformation Science (Mason Core)
PSYC 499	Senior Thesis

Total Credits

3

1

The proposed project or internship must be approved by the Climate Resilience and Adaptation Coordinator and the student's academic advisor.

Projects or internships should meet at least one of the following criteria:

- Support climate readiness efforts of local partners,
- Contribute to regional or state-wide assessment of climate vulnerabilities, or
- Contribute to regional or state-wide opportunities to increase resilience

2

George Mason's [Virginia Climate Center](#) at Mason can facilitate student connections with potential mentors and identify suitable placements for internships.

3

Available only to Costello College of Business students who meet the course's prerequisite.

Elective Courses

Select 6-8 credits from the following:

6-8

ANTH 370	Environment and Culture
ANTH 394	Archaeology of Climate Change
BIOL 301	Biology and Society (Mason Core)
BIOL 379	RS: Ecological Sustainability (Mason Core)
BUS 200	Global Environment of Business (Mason Core)
BUS 295	Business Models For Sustainability
CEIE 100	Environmental Issues and Solutions Around the World (Mason Core)
CEIE 441	Engineering for Climate Adaptation
CEIE 445	Flood Hazards Engineering and Adaptation
CEIE 452	Climate Change Engineering and Policy
CLIM 102	Introduction to Global Climate Change Science (Mason Core)
CLIM 111	Introduction to the Fundamentals of Atmospheric Science (Mason Core)
CLIM 312	Physical Climatology
or GGG 312	Physical Climatology
CLIM 314	Severe and Extreme Weather
CLIM 319	Air Pollution
CLIM 440	Climate Dynamics
COMM 433	Environmental Communication, Campaigns, and Social Movements

<u>CONF 300</u>	Conflict Resolution Techniques and Practice
<u>CONF 330</u>	Community, Group, and Organizational Conflict Analysis and Resolution
<u>CONF 340</u>	Global Conflict Analysis and Resolution (<u>Mason Core</u>)
<u>CONF 347</u>	Mobilizing for Change and Justice
<u>ECON 105</u>	Environmental Economics for the Citizen (<u>Mason Core</u>)
<u>ECON 309</u>	Economic Problems and Public Policies
<u>ECON 335</u>	Environmental Economics
<u>ECON 435</u>	Economics of Energy
<u>EVPP 322</u>	Business and Sustainability
<u>EVPP 336</u>	Tackling Wicked Problems in Society the Environment (<u>Mason Core</u>)
<u>EVPP 337</u>	Environmental Policy Making in Developing Countries (<u>Mason Core</u>)
<u>EVPP 361</u>	Introduction to Environmental Policy
<u>EVPP 362</u>	Intermediate Environmental Policy
<u>EVPP 378</u>	RS: Ecological Sustainability (<u>Mason Core</u>)
<u>EVPP 432</u>	Energy Policy
<u>EVPP 434</u>	Food-Energy-Water-Climate Nexus
<u>EVPP 436</u>	Politics of Climate Change Governance
<u>EVPP 442</u>	Urban Ecosystems and Processes
<u>EVPP 480</u>	Sustainability in Action (<u>Mason Core</u>)
<u>GCH 305</u>	Introduction to OneHealth
<u>GCH 360</u>	Health and Environment

<u>GEOL 120</u>	The Changing Ocean (<u>Mason Core</u>).
<u>GEOL 121</u>	The Changing Ocean Laboratory (<u>Mason Core</u>).
<u>GEOL 305</u>	Environmental Geology (<u>Mason Core</u>).
<u>GEOL 332</u>	Paleoclimatology
<u>GGG 103</u>	Human Geography (<u>Mason Core</u>).
<u>GGG 302</u>	Global Environmental Hazards
<u>GGG 303</u>	Geography of Resource Conservation (<u>Mason Core</u>).
<u>GGG 304</u>	Population Geography (<u>Mason Core</u>).
<u>GGG 306</u>	Urban Geography
<u>GGG 307</u>	Geographic Approaches for Sustainable Development
<u>GGG 354</u>	Data Analysis and Global Change Detection Techniques
<u>GLOA 388</u>	Global Health and Development
<u>GOVT 352</u>	Responsible Innovation
<u>GOVT 357</u>	Urban Planning
<u>GOVT 361</u>	Introduction to Environmental Policy
<u>GOVT 362</u>	Intermediate Environmental Policy
<u>GOVT 364</u>	Public Policy Making
<u>GOVT 400</u>	Issues in Political Analysis (when the topic is "Introduction to Energy and Climate Law")
<u>INTS 102</u>	Global Networks and Communities (<u>Mason Core</u>).
<u>INTS 210</u>	Sustainable World (<u>Mason Core</u>).
<u>INTS 211</u>	Introduction to Conservation Studies (<u>Mason Core</u>).

INTS 292	Leadership for Sustainability
INTS 304	Social Movements and Community Activism (Mason Core).
INTS 332	Business and Sustainability
INTS 334	Environmental Justice (Mason Core).
INTS 337	Social Justice Consciousness and Action
INTS 406	Global Leadership (Mason Core).
INTS 450	Social Innovation in Action
MGMT 454	Social Impact and Entrepreneurship
PHIL 243	Global Environmental Ethics (Mason Core).
PHIL 343	Topics in Environmental Philosophy (Mason Core).
PSYC 335	Psychology of Creativity and Innovation
PSYC 410	The Psychology of Environmental Stewardship
PSYC 427	Community Engagement for Social Change (Mason Core).
SOCI 332	The Urban World (Mason Core).
SOCI 352	Social Problems and Solutions (Mason Core).
WMST 319	Gender, Health, and Culture in the United States

Total Credits

6-8

**Retroactive
Requirements
Updates:**

Dr.
Mr.
Ms.
Mn.
Mn.
Mn.
Mn.

Program Outcomes

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Have you reached out to the Libraries to determine whether there are adequate resources to support your program? If not, please email Meg Meiman, Associate University Librarian for Learning, Research, and Engagement at mmeiman2@gmu.edu.

Yes

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

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Does this program cover material which crosses into another department?

No

Additional Attachments

Ev

Reviewer Comments

Mark Uhen (muhen) (02/26/25 4:17 pm): Rollback: Jim Kinter will send updates with more classes added.

Additional Comments

Is this course required of all students in this degree program?

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