

Program Change Request

Date Submitted: 10/07/25 9:46 am

Viewing: **SC-BS-EVSC : Environmental Science, BS**

Last approved: 04/28/25 5:13 pm

Last edit: 10/07/25 9:46 am

Changes proposed by: jbazaz

Catalog Pages
Using this Program

[Environmental Science, BS](#)

In Workflow

- 1. ESP UG Committee
- 2. ESP Chair
- 3. SC Curriculum Committee
- 4. SC Assistant Dean
- 5. Assoc Provost- Undergraduate
- 6. Registrar-Programs

Approval Path

- 1. 11/13/25 11:12 am
Younsung Kim
(ykih): Approved for
ESP UG Committee
- 2. 11/13/25 12:53 pm
Gad Perry
(gperry23):
Approved for ESP
Chair

History

- 1. Nov 1, 2017 by
clmig-jwehrheim

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

No

Effective Catalog: 2026-2027

Program Level: Undergraduate

Program Type: Bachelor's

Degree Type: Bachelor of Science

Title: Environmental Science, BS

Is this badge on
your page?

—

—

Banner Title: BS Environmental Science

Is this a listing of

**Registrar/OAPI Use
Only – SCHEV
Status** Approved

**Registrar's Office
Use Only –
Program Start Term** Fall 2018

**Registrar/OAPI Use
Only – SCHEV
Letter**

**Registrar/OAPI Use
Only – SACSCOC
Status**

Concentration(s):

2. Mar 1, 2018 by
Jennifer Bazaz
Gettys (jbazaz)
3. Mar 13, 2018 by
Jennifer Bazaz
Gettys (jbazaz)
4. Mar 26, 2018 by
rzachari
5. Nov 7, 2018 by
Jennifer Bazaz
Gettys (jbazaz)
6. Feb 8, 2019 by
scheselk
7. Nov 13, 2020 by
Tory Sarro (vsarro)
8. Dec 21, 2020 by
Jennifer Bazaz
Gettys (jbazaz)
9. Dec 6, 2021 by
Jennifer Bazaz
Gettys (jbazaz)
10. May 10, 2022 by
Jennifer Bazaz
Gettys (jbazaz)
11. Apr 6, 2023 by
Jennifer Bazaz
Gettys (jbazaz)
12. Sep 1, 2023 by
Younsung Kim (ykih)
13. Mar 22, 2024 by
Jennifer Bazaz

Gettys (jbazaz)
14. Dec 3, 2024 by
Younsung Kim (ykih)
15. Feb 25, 2025 by
Jennifer Bazaz
Gettys (jbazaz)
16. Apr 28, 2025 by
Jennifer Bazaz
Gettys (jbazaz)

	Associated Concentrations	Registrar's Office Use Only: Concentration Code
1	Conservation	CNSV
2	Ecological Science	ESCI
3	Environmental Health	EVHL
4	Human and Ecosystem Response to Climate Change	HERC
5	Marine, Estuarine and Freshwater Ecology	MEFC
6	Wildlife Conservation and Management	WICM

Registrar/IRR Use
Only –
Concentration CIP
Code

College/School: College of Science

Department /
Academic Unit: Environmental Science & Policy

Jointly Owned
Program? No

**Is there an
embedded degree
as part of a
program?**

Justification

What: Replacing EVPP 378 with EVPP 425.

Why: The course has been renumbered for the Mason Core Apex designation.

**Total Credits
Required:**

Total credits: minimum 120

Registrar's Office Use Only - Program Code:

SC-BS-EVSC

**Registrar/IRR Use
Only – Program CIP
Code**

03.0104 - Environmental Science.

**Admission
Requirements:**

Admissions

University-wide admissions policies can be found in the [Undergraduate Admissions Policies](#) section of this catalog.

To apply for this program, please complete the [George Mason University Admissions Application](#).

**Program-Specific
Policies:**

Policies

Students must fulfill all [Requirements for Bachelor's Degrees](#), including the [Mason Core](#).

Students can fulfill the writing intensive requirement for this major by taking [EVPP 337](#) Environmental Policy Making in Developing Countries([Mason Core](#)).

For policies governing all undergraduate programs, see [AP.5 Undergraduate Policies](#).

Degree

This is a Green Leaf program.

Requirements:

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

Please note that all CONS courses are offered through the [Smithsonian-Mason Semester](#).

Core Requirements

All students must complete the following core courses:

Environmental Science

<u>EVPP 210</u>	Environmental Biology: Molecules and Cells ¹	4
<u>EVPP 301</u>	Environmental Science: Biological Diversity and Ecosystems	4
<u>EVPP 302</u>	Environmental Science: Biomes and Human Dimensions	4
<u>EVPP 305</u> & <u>EVPP 306</u>	Environmental Microbiology Essentials and Environmental Microbiology Essentials Laboratory	4
<u>EVPP 337</u>	Environmental Policy Making in Developing Countries (Mason Core) ²	3
<u>EVPP 361</u>	Introduction to Environmental Policy	3
<u>EVPP 377</u>	Applied Ecology	3
<u>EVPP 430</u>	Fundamentals of Environmental Geographic Information Systems	3
<u>BIOL 214</u>	Biostatistics for Biology Majors ³	3-4
or <u>STAT 250</u>	Introductory Statistics I (Mason Core)	
Select one from the following:		3
<u>EVPP 336</u>	Tackling Wicked Problems in Society the Environment (Mason Core)	
<u>EVPP 338</u>	Economics of Environmental Policy	
<u>EVPP 362</u>	Intermediate Environmental Policy	
<u>EVPP 475</u>	Global Biodiversity Governance	
Select one from the following:		3-4
<u>EVPP 378</u>	RS: Ecological Sustainability (Mason Core)	

<u>EVPP 425</u>	<u>RS: Ecological Sustainability</u>	
<u>EVPP 480</u>	Sustainability in Action(<u>Mason Core</u>)	
<u>CONS 490</u>	RS: Integrated Conservation Strategies(<u>Mason Core</u>)	
Total Credits		37-39

1

The requirement for [EVPP 210](#) Environmental Biology: Molecules and Cells can be fulfilled for a student who received transfer credit for [BIOL 213](#) Cell Structure and Function.

2

Fulfills the writing intensive requirement.

3

[BIOL 214](#) Biostatistics for Biology Majors is recommended by the Department of Environmental Science and Policy.

Chemistry

<u>CHEM 211</u> & <u>CHEM 213</u>	General Chemistry I(<u>Mason Core</u>) and General Chemistry Laboratory I(<u>Mason Core</u>)	4
<u>CHEM 212</u> & <u>CHEM 214</u>	General Chemistry II(<u>Mason Core</u>) and General Chemistry Laboratory II(<u>Mason Core</u>)	4
Total Credits		8

Mathematics

Select one of the following two options: **4-6**

Option One: Select one course from the following:

<u>MATH 111</u>	Linear Mathematical Modeling(<u>Mason Core</u>)
<u>MATH 113</u>	Analytic Geometry and Calculus I(<u>Mason Core</u>)
<u>MATH 114</u>	Analytic Geometry and Calculus II

Option Two: Complete the following courses:

<u>MATH 123</u>	Calculus with Algebra/Trigonometry, Part A
---------------------------------	--

MATH 124Calculus with Algebra/Trigonometry, Part B(**Mason Core**).

Total Credits

4-6

Geology**GEOL 102**Historical Geology(**Mason Core**).

4

& **GEOL 104**and Historical Geology Laboratory(**Mason Core**).

Total Credits

4

Information Technology**CDS 130**Computing for Scientists(**Mason Core**).

3

Total Credits

3

Concentration in Conservation (CNSV)Select at least 21 credits from the following: ¹

21

EVPP 115

Special Topics in Environmental Science (May be repeated only when topics vary.)

EVPP 318

Conservation Biology

EVPP 350

Freshwater Ecosystems

EVPP 378~~RS: Ecological Sustainability~~(**Mason Core**)**EVPP 381**Nature and Culture in Global Wetlands(**Mason Core**).**EVPP 395**

Undergraduate Research in Environmental Science and Policy

EVPP 396Directed Topic in Environmental Science and Policy ²**EVPP 419**

Marine Mammal Biology and Conservation

EVPP 420

Marine Mammal Biology and Conservation Field Course

EVPP 421

Marine Conservation

<u>EVPP 425</u>	<u>RS: Ecological Sustainability</u>
<u>EVPP 427</u>	Conservation Medicine
<u>EVPP 428</u>	Planetary Health
<u>EVPP 440</u>	Field Environmental Science ²
<u>EVPP 445</u>	Principles of Environmental Toxicology
<u>EVPP 475</u>	Global Biodiversity Governance
<u>EVPP 485</u>	Quantitative Data Analysis for Environmental Scientists
<u>EVPP 490</u>	Special Topics in Environmental Science and Policy
<u>EVPP 494</u>	Internship
<u>BIOL 300</u>	BioDiversity
<u>BIOL 435</u>	Selected Topics in Biology ²
<u>GGG 303</u>	Geography of Resource Conservation(<u>Mason Core</u>)
<u>GGG 307</u>	Geographic Approaches for Sustainable Development
<u>CONS 320</u>	Conservation in Practice
<u>CONS 400</u>	Conservation Seminar
<u>CONS 401</u>	Conservation Theory
<u>CONS 402</u>	Applied Conservation
<u>CONS 404</u>	Biodiversity Monitoring
<u>CONS 405</u>	Landscape and Macrosystems Ecology
<u>CONS 406</u>	Small Population Management
<u>CONS 410</u>	Human Dimensions in Conservation(<u>Mason Core</u>)

<u>CONS 490</u>	RS: Integrated Conservation Strategies(<u>Mason Core</u>) (Synthesis course)
<u>CONS 491</u>	RS: Conservation Management Planning(<u>Mason Core</u>)
<u>CONS 496</u>	Research in Conservation(<u>Mason Core</u>)
<u>CONS 497</u>	Special Topics in Conservation
<u>CONS 499</u>	Independent Study/Research
<u>INTS 311</u>	The Mysteries of Migration: Consequences for Conservation(<u>Mason Core</u>)
Alternative courses may be taken as approved by the program coordinator.	

Total Credits

21

¹

Credits must be unique to this concentration and are not permitted to share with the Core Requirements in this degree.

Students should consult with an advisor to ensure that they do not exceed allowable credits of [EVPP 395](#) and [EVPP 494](#).²

In a relevant topic.

Concentration in Ecological Science (ECSE)

Select at least 21 unique credits from the following: ¹

21

<u>EVPP 115</u>	Special Topics in Environmental Science (May be repeated only when topics vary.)
<u>EVPP 309</u>	Oceanography
<u>EVPP 318</u>	Conservation Biology
<u>EVPP 350</u>	Freshwater Ecosystems
<u>EVPP 378</u>	RS: Ecological Sustainability (<u>Mason Core</u>)
<u>EVPP 381</u>	Nature and Culture in Global Wetlands(<u>Mason Core</u>)
<u>EVPP 395</u>	Undergraduate Research in Environmental Science and Policy
<u>EVPP 396</u>	Directed Topic in Environmental Science and Policy ²

EVPP 408	Mushrooms, Molds and Society
EVPP 425	RS: Ecological Sustainability
EVPP 427	Conservation Medicine
EVPP 428	Planetary Health
EVPP 429	Environmental Science Communication
EVPP 434	Food-Energy-Water-Climate Nexus
EVPP 435	The Diversity of Fishes
EVPP 440	Field Environmental Science ²
EVPP 441	Protist Diversity and Ecology
EVPP 445	Principles of Environmental Toxicology
EVPP 449	Marine Ecology
EVPP 485	Quantitative Data Analysis for Environmental Scientists
EVPP 490	Special Topics in Environmental Science and Policy
EVPP 494	Internship
BIOL 300	BioDiversity
BIOL 345	Plant Ecology
BIOL 435	Selected Topics in Biology ²
BIOL 459	Fungi and Ecosystems
GEOL 305	Environmental Geology(Mason Core).
GEOL 306	Soil Science
GGS 307	Geographic Approaches for Sustainable Development

<u>CEIE 401</u>	Sustainable Land Development	
<u>CEIE 440</u>	Water Supply and Distribution	
<u>CEIE 444</u>	Water Resources Planning and Design	
<u>CEIE 453</u>	Water and Wastewater Treatment Processes	
Alternative courses may be taken as approved by the program coordinator.		
Total Credits		21

¹

Credits must be unique to this concentration and are not permitted to share with the Core Requirements in this degree.

Students should consult with an advisor to ensure that they do not exceed allowable credits of [EVPP 395](#) and [EVPP 494](#).

²

In a relevant topic.

Concentration in Environmental Health (EVHL)

Required Courses

<u>EVPP 427</u>	Conservation Medicine	3
<u>EVPP 445</u>	Principles of Environmental Toxicology	3

Course Options

Select at least 15 credits from the following ¹		15
<u>EVPP 115</u>	Special Topics in Environmental Science (May be repeated only when topics vary.)	
<u>EVPP 395</u>	Undergraduate Research in Environmental Science and Policy	
<u>EVPP 396</u>	Directed Topic in Environmental Science and Policy ²	
<u>EVPP 428</u>	Planetary Health	
<u>EVPP 440</u>	Field Environmental Science ²	
<u>EVPP 441</u>	Protist Diversity and Ecology	

EVPP 485	Quantitative Data Analysis for Environmental Scientists
EVPP 490	Special Topics in Environmental Science and Policy
EVPP 494	Internship
BIOL 305 & BIOL 306	Biology of Microorganisms and Biology of Microorganisms Laboratory
BIOL 402	Applied and Industrial Microbiology
BIOL 404	Medical Microbiology
BIOL 465	Histology
CLIM 319	Air Pollution
GGG 302	Global Environmental Hazards
GGG 304	Population Geography(Mason Core)
GGG 307	Geographic Approaches for Sustainable Development
GCH 205	Global Health(Mason Core)
GCH 360	Health and Environment

Alternative courses may be taken as approved by the program coordinator.

Total Credits

21

¹

Credits must be unique to this concentration and are not permitted to share with the Core Requirements in this degree.

Students should consult with an advisor to ensure that they do not exceed allowable credits of [EVPP 395](#) and [EVPP 494](#).

²

In a relevant topic.

Concentration in Human and Ecosystem Response to Climate Change (HERC)

Course Options

Select 21 unique credits from the following courses; at least 15 of these credits must be in EVPP-prefixed courses: ¹

21

<u>EVPP 115</u>	Special Topics in Environmental Science (May be repeated only when topics vary.)
<u>EVPP 309</u>	Oceanography
<u>EVPP 336</u>	Tackling Wicked Problems in Society the Environment(<u>Mason Core</u>).
<u>EVPP 338</u>	Economics of Environmental Policy
<u>EVPP 362</u>	Intermediate Environmental Policy
<u>EVPP 378</u>	RS: Ecological Sustainability (<u>Mason Core</u>)
<u>EVPP 381</u>	Nature and Culture in Global Wetlands(<u>Mason Core</u>).
<u>EVPP 395</u>	Undergraduate Research in Environmental Science and Policy
<u>EVPP 396</u>	Directed Topic in Environmental Science and Policy
<u>EVPP 425</u>	<u>RS: Ecological Sustainability</u>
<u>EVPP 427</u>	Conservation Medicine
<u>EVPP 428</u>	Planetary Health
<u>EVPP 429</u>	Environmental Science Communication
<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 440</u>	Field Environmental Science
<u>EVPP 475</u>	Global Biodiversity Governance
<u>EVPP 445</u>	Principles of Environmental Toxicology
<u>EVPP 465</u>	Coral Reef Ecology, Health, and Conservation

EVPP 466	Coral Reef Ecology, Health, and Conservation Lab/Field Experience
EVPP 485	Quantitative Data Analysis for Environmental Scientists
EVPP 490	Special Topics in Environmental Science and Policy
EVPP 494	Internship
CLIM 101	Global Warming: Weather, Climate, and Society(Mason Core)
CLIM 111	Introduction to the Fundamentals of Atmospheric Science(Mason Core)
CLIM 112	Introduction to the Fundamentals of Atmospheric Science Lab(Mason Core)
CLIM 312	Physical Climatology
CLIM 314	Severe and Extreme Weather
CLIM 319	Air Pollution
CLIM 390	Topics in Climate Research
CLIM 412	Physical Oceanography
CLIM 438	Atmospheric Chemistry
CLIM 456	Introduction to Atmospheric Radiation
GEOL 309	Oceanography
GGS 121	Dynamic Atmosphere and Hydrosphere(Mason Core)
GGS 302	Global Environmental Hazards
GGS 304	Population Geography(Mason Core)
GGS 307	Geographic Approaches for Sustainable Development
GGS 309	Introduction to Weather and Climate
GGS 312	Physical Climatology

GGG 314	Severe and Extreme Weather
GGG 321	Biogeography
GGG 354	Data Analysis and Global Change Detection Techniques
PHIL 243	Global Environmental Ethics(Mason Core)
PHIL 343	Topics in Environmental Philosophy(Mason Core)

Alternative courses may be taken as approved by the program coordinator.

Total Credits

21

¹

Credits must be unique to this concentration and are not permitted to share with the Core Requirements in this degree.

Students should consult with an advisor to ensure that they do not exceed allowable credits of [EVPP 395](#) and [EVPP 494](#).

Concentration in Marine, Estuarine and Freshwater Ecology (MEFC)

Required Courses

EVPP 309	Oceanography	3
EVPP 350	Freshwater Ecosystems	4
EVPP 421	Marine Conservation	3
EVPP 449	Marine Ecology	3

Course Options

Select at least 8 credits from the following: ¹

8

EVPP 115	Special Topics in Environmental Science (May be repeated only when topics vary.)
EVPP 318	Conservation Biology
EVPP 363	Coastal Morphology and Processes
EVPP 395	Undergraduate Research in Environmental Science and Policy

<u>EVPP 396</u>	Directed Topic in Environmental Science and Policy ²
<u>EVPP 419</u>	Marine Mammal Biology and Conservation
<u>EVPP 420</u>	Marine Mammal Biology and Conservation Field Course
<u>EVPP 427</u>	Conservation Medicine
<u>EVPP 434</u>	Food-Energy-Water-Climate Nexus
<u>EVPP 435</u>	The Diversity of Fishes
<u>EVPP 440</u>	Field Environmental Science ²
<u>EVPP 441</u>	Protist Diversity and Ecology
<u>EVPP 445</u>	Principles of Environmental Toxicology
<u>EVPP 475</u>	Global Biodiversity Governance
<u>EVPP 485</u>	Quantitative Data Analysis for Environmental Scientists
<u>EVPP 490</u>	Special Topics in Environmental Science and Policy
<u>EVPP 494</u>	Internship
<u>EVPP 563</u>	Coastal Morphology and Processes
<u>BIOL 331</u>	Invertebrate Zoology
<u>BIOL 480</u>	The Diversity of Fishes
<u>GEOL 364</u>	Marine Geology
<u>GEOL 458</u>	Chemical Oceanography
<u>GGG 307</u>	Geographic Approaches for Sustainable Development
<u>CLIM 412</u>	Physical Oceanography

Alternative courses may be taken as approved by the program coordinator.

Total Credits

21

¹

Credits must be unique to this concentration and are not permitted to share with the Core Requirements in this degree.

Students should consult with an advisor to ensure that they do not exceed allowable credits of [EVPP 395](#) and [EVPP 494](#).

²

In a relevant topic.

Concentration in Wildlife Conservation and Management (WICM)

Wildlife Courses

Select 6 credits from the following: ¹

6

[EVPP 318](#)

Conservation Biology

[EVPP 445](#)

Principles of Environmental Toxicology

[EVPP 490](#)

Special Topics in Environmental Science and Policy

Select 15 credits from the following: ¹

15

[EVPP 115](#)

Special Topics in Environmental Science (May be repeated only when topics vary.)

[EVPP 395](#)Undergraduate Research in Environmental Science and Policy ²[EVPP 396](#)Directed Topic in Environmental Science and Policy ²[EVPP 419](#)

Marine Mammal Biology and Conservation

[EVPP 427](#)

Conservation Medicine

[EVPP 428](#)

Planetary Health

[EVPP 435](#)

The Diversity of Fishes

[EVPP 445](#)

Principles of Environmental Toxicology

[EVPP 475](#)

Global Biodiversity Governance

[EVPP 485](#)

Quantitative Data Analysis for Environmental Scientists

<u>EVPP 490</u>	Special Topics in Environmental Science and Policy
<u>EVPP 494</u>	Internship ²
<u>BIOL 304</u>	Plant Biology
<u>BIOL 344</u>	Plant Diversity and Evolution
<u>BIOL 345</u>	Plant Ecology
<u>BIOL 311</u>	General Genetics
<u>BIOL 326</u>	Animal Physiology
<u>BIOL 331</u>	Invertebrate Zoology
<u>BIOL 332</u>	Insect Biology
<u>BIOL 437</u>	Ornithology
<u>BIOL 438</u>	Mammalogy
<u>BIOL 439</u>	Herpetology
<u>BIOL 454</u>	Marine Mammal Biology and Conservation
<u>BIOL 460</u>	Infectious Diseases Wildlife
<u>RMGT 300</u>	People With Nature
<u>RMGT 302</u>	Park Management and Operations
<u>RMGT 402</u>	Human Behavior in Natural Environments

Total Credits

21

¹

Credits must be unique to this concentration and are not permitted to share with the Core Requirements in this degree. Students should consult with an advisor to ensure that they do not exceed allowable credits of [EVPP 395](#) and [EVPP 494](#).

²

In a topic relevant to wildlife.

**Retroactive
Requirements
Updates:**

December 2024 Request: EVPP 115 addition retro to the fall 2024 catalog.

Previous Request: Effective Catalog years: 2021-2022, 2022-2023, 2023-2024

Previous requirement as stated in the catalog: Previously, there weren't any guardrails to safeguard against double-counting courses. The concentration credits should not be allowed to share with the core requirements of the degree.

Plan of Study:**Honors
Information:**

Accelerated
Description/Dual
Degree
Description:
INTO-Mason
Requirements:

College
Requirements &
Policies:

Department /
Academic Unit
Requirements &
Policies:
Program Outcomes

Additional Program Information

This information is required by the Office of Accreditation and Program Integrity.

**Courses offered via
distance (if
applicable):**

Indicate whether

**What is the
primary delivery**

Face-to-Face Only

No

Is the content of the
 article relevant
 Is this new program
 article relevant
 Is this new program
 article relevant
 Is this a new version of
 Data of Business
 without the method
 Data of Business

Percentage of total credits containing new course content. ("New course content" is defined by SACSCOC as content that is not currently included in an existing approved degree/certificate program at the same instructional level. Do not exclude gen ed credits in calculations for undergraduate

programs.)

0%-24%

Does this change include the addition of a distance education or face-to-face method of delivery for this program?

No

Does this change include the addition of a course/credit-based competency-based education delivery option?

No

Will any additional equipment/facilities be needed?

No

Will any additional faculty be required?

No

Will any additional financial resources be needed?

No

Additional library/learning resources needed?

No

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.

OAPI Use Only – Determination of SACSCOC Impact

Comments or Notes

Green Leaf Program Designation

Is this a Green Leaf program? Yes

Green Leaf Designation Sustainability-focused designation

Sustainability-focused academic programs require at least one green leaf course. Either that course is itself sustainability-focused or else the program requires a set of sustainability-related courses with aggregated substance equivalent to a sustainability-focused course.

Relationship to Existing Courses

Relationship to Existing Programs

List sustainability-focused courses currently required in the degree program:

List sustainability-

Does this program cover material which crosses into another department?

No

Additional Attachments

[BS-Environmental-Science-Wildlife.pdf](#)

[BS-Environmental Science-Human and Ecosystem Response to Climate Change.pdf](#)

SCHEV Proposal

Executive Summary

Reviewer Comments

Additional Comments

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

%wi_required.eshtml%

-- -- -- --

Key: 151