

# GREEN LEAF PROGRAMS AND COURSES

Website: [sustainabilitystudies.gmu.edu](http://sustainabilitystudies.gmu.edu)

## Green Leaf Programs and Courses

A "Green Leaf" course or academic program focuses on learning about sustainability, i.e., meeting our present needs without compromising the ability of future generations to meet their own needs.

See the Sustainability Studies website (<http://sustainabilitystudies.gmu.edu/greenleaf/>) for more information.

## Programs

Green Leaf academic programs focus on sustainability, usually including a required set of Green Leaf courses in order to cover the social, economic and environmental dimensions of sustainability. Each is a vital contributor to Mason's sustainability across the curriculum.

### Undergraduate Degrees

- Atmospheric Sciences, BS (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/atmospheric-sciences-bs/>)
- Civil and Infrastructure Engineering, BS (<http://catalog.gmu.edu/colleges-schools/engineering-computing/engineering/civil-environmental-infrastructure/civil-infrastructure-engineering-bs/>)
- Geology, BS (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/geology-bs/>)
- Environmental and Sustainability Studies, BA (CHSS) (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/integrative-studies/environmental-sustainability-studies-ba-chss/>)
- Environmental Science, BS (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/environmental-science-bs/>)
- Geology, BA (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/geology-ba/>)
- Global Affairs, BA (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/global-affairs/global-affairs-ba/>)
- Tourism and Events Management, BS (<http://catalog.gmu.edu/colleges-schools/education-human-development/school-sport-recreation-tourism-management/tourism-and-events-management-bs/>)
- Integrative Studies, BS: Concentration in Applied Global Conservation (AGCN) (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/integrative-studies/integrative-studies-bs/#requirementstext>)

### Undergraduate Minors and Certificates

- Atmospheric Science Minor (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/atmospheric-science-minor/>)
- Conservation Studies Minor (CHSS) (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/integrative-studies/conservation-studies-minor-chss/>)
- Earth Science Minor (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/earth-science-minor/>)
- Environmental Policy Minor (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/environmental-policy-minor/>)<sup>1</sup>

- Geology Minor (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/geology-minor/>)
- Global Affairs Minor (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/global-affairs/global-affairs-minor/>)<sup>1</sup>
- Paleontology Minor (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/paleontology-minor/>)
- Sustainable Enterprise Minor (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/sustainable-enterprise-minor/>)
- Sustainability Studies Minor (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/sustainability-studies-minor/>)

### Bachelor's/Accelerated Master's Program

- Bachelor's Degree (Green Leaf)/Environmental Science and Policy, Accelerated MS (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/environmental-science-policy-ms/#acceleratedmasterstext>)
- Bachelor's Degree (any)/Interdisciplinary Studies, Accelerated MAIS (Energy and Sustainability Concentration) (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/interdisciplinary-studies/interdisciplinary-studies-mais/#acceleratedmasterstext>)<sup>1</sup>
- Bachelor's Degree (any)/Global Affairs, Accelerated MA (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/global-affairs/global-affairs-ma/#acceleratedmasterstext>)<sup>1,2</sup>

### Graduate Degrees

- Climate Dynamics, PhD (<http://catalog.gmu.edu/colleges-schools/science/atmospheric-oceanic-earth-sciences/climate-dynamics-phd/>)
- Environmental Science and Policy, MS (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/environmental-science-policy-ms/>)
- Environmental Science and Public Policy, PhD (<http://catalog.gmu.edu/colleges-schools/science/environmental-policy/environmental-science-public-policy-phd/>)
- Global Affairs, MA (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/global-affairs/global-affairs-ma/>)<sup>1</sup>
- Interdisciplinary Studies, MAIS: Concentration in Energy and Sustainability (<http://catalog.gmu.edu/colleges-schools/humanities-social-sciences/interdisciplinary-studies/interdisciplinary-studies-mais/>)

<sup>1</sup> Meets Green Leaf criteria when options are selected to ensure coverage of "people, planet and prosperity" across the program's curriculum.

<sup>2</sup> Meets the Green Leaf criteria when the Master's degree is paired with a Green Leaf Bachelor's degree.

## Courses

The Green Leaf designation recognizes offerings that contribute significantly to students' understanding and practice of sustainability. These offerings extend beyond environmental management, natural resources protection and conservation studies alone as Mason's Green Leaf curricula comprise both sustainability-*focused* and sustainability-*related* courses.

## Sustainability- Focused Courses

Sustainability-*focused* courses provide valuable grounding in the concepts and principles of sustainability. These courses educate students about how different dimensions of sustainability relate to and support each other in theory and practice. In addition, these courses help equip students with the skills to weave together disparate components of sustainability in addressing complex issues.

| Code     | Title  | Credits |
|----------|--|---------|
| ANTH 370 | Environment and Culture  | 3       |
| AVT 385  | EcoArt (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                                  | 3       |
| BIOL 379 | RS: Ecological Sustainability (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )           | 4       |
| CEIE 401 | Sustainable Land Development   | 3       |
| CEIE 501 | Sustainable Development  | 3       |
| CEIE 540 | Water Supply and Distribution  | 3       |
| CEIE 892 | Special Topics in Environmental and Water Resource Systems Engineering   | 3       |
| COMM 660 | Climate Change and Sustainability Communication Campaigns  | 3       |
| CONF 702 | Peace Studies  | 3       |
| CONS 410 | Human Dimensions in Conservation (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )        | 3       |
| ECON 105 | Environmental Economics for the Citizen (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 3       |
| ECON 335 | Environmental Economics  | 3       |
| EVPP 322 | Business and Sustainability  | 3       |
| EVPP 338 | Economics of Environmental Policy  | 3       |
| EVPP 355 | Ecological Engineering and Ecosystem Restoration   | 4       |
| EVPP 361 | Introduction to Environmental Policy   | 3       |
| EVPP 362 | Intermediate Environmental Policy  | 3       |
| EVPP 378 | RS: Ecological Sustainability (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )           | 4       |
| EVPP 421 | Marine Conservation  | 3       |
| EVPP 432 | Energy Policy  | 3       |
| EVPP 475 | Global Biodiversity Governance   | 3       |
| EVPP 480 | Sustainability in Action (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                | 4       |
| EVPP 521 | Marine Conservation  | 3       |
| EVPP 525 | Economics of Human/Environment Interactions  | 3       |
| EVPP 533 | Energy Policy  | 3       |
| EVPP 575 | Global Biodiversity Governance   | 3       |
| EVPP 608 | Introduction to Environmental Social Science   | 3       |
| EVPP 620 | Development of U.S. Environmental Policies   | 3       |
| EVPP 622 | Management of Wild Living Resources  | 3       |
| EVPP 626 | Environment and Development in Asia  | 3       |
| EVPP 627 | Environmental Policy in Latin America  | 3       |

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| EVPP 628 | Environment and Development in Africa  | 3   |
| EVPP 635 | Environment and Society  | 3   |
| EVPP 642 | Environmental Policy   | 3   |
| GEOL 321 | Geology of Energy Resources  | 3   |
| GEOL 420 | Earth Science and Policy (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )        | 3   |
| GGG 307  | Geographic Approaches for Sustainable Development  | 3   |
| GOVT 361 | Introduction to Environmental Policy   | 3   |
| INTS 210 | Sustainable World (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )               | 4   |
| INTS 292 | Leadership for Sustainability  | 0-1 |
| INTS 334 | Environmental Justice (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )           | 4   |
| INTS 370 | Sustainable Food Systems   | 6   |
| INTS 402 | Plants and People - Sustenance, Ceremony, and Sustainability   | 6   |
| ITRN 760 | International Environmental Politics   | 3   |
| PRLS 250 | Wilderness Travel and Sustainability   | 2   |
| PRLS 300 | People with Nature   | 3   |
| PRLS 402 | Human Behavior in Natural Environments   | 3   |
| PRLS 531 | Natural Resources Recreation Planning  | 3   |
| PUAD 642 | Environmental Policy   | 3   |
| SOCI 320 | Globalization and Social Change (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 3   |
| TOUR 340 | Sustainable Tourism  | 3   |
| TOUR 420 | Tourism Planning/Policy  | 3   |

## Sustainability- Related Courses

Sustainability-*related* courses help build knowledge about a component of sustainability or introduce students to sustainability concepts during part of the course. They may complement sustainability-focused courses by providing students with in-depth knowledge of a particular aspect or dimension of sustainability (such as the natural environment) or by providing a focus area (such as renewable energy) for a student's sustainability studies, or they may broaden students' understanding of sustainability from within different disciplines.

| Code     | Title   | Credits |
|----------|---|---------|
| ANTH 580 | Environmental Anthropology  | 3       |
| BIOL 140 | Plants and People (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                          | 3       |
| BUS 200  | Global Environment of Business (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )             | 3       |
| CEIE 100 | Environmental Engineering around the World (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 3       |
| CEIE 355 | Environmental Engineering and Science   | 3       |
| CEIE 450 | Environmental Engineering Systems   | 3       |
| CEIE 690 | Topics in Civil Engineering   | 3       |
| CHEM 155 | Introduction to Environmental Chemistry I (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  | 4       |

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| CHEM 156 | Introduction to Environmental Chemistry II (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                  | 4   | EVPP 337 | Environmental Policy Making in Developing Countries  | 3   |
| CHEM 458 | Chemical Oceanography  | 3   | GCH 560  | Environmental Health   | 3   |
| CLIM 101 | Global Warming: Weather, Climate, and Society (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )               | 3   | GEOL 101 | Physical Geology (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  | 3   |
| CLIM 102 | Introduction to Global Climate Change Science (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )               | 4   | GEOL 102 | Historical Geology (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  | 3   |
| CLIM 111 | Introduction to the Fundamentals of Atmospheric Science (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )     | 3   | GEOL 134 | Evolution and Extinction (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                                  | 3   |
| CLIM 112 | Introduction to the Fundamentals of Atmospheric Science Lab (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 1   | GEOL 303 | Field Mapping Techniques   | 3   |
| CLIM 314 | Severe and Extreme Weather   | 3   | GEOL 305 | Environmental Geology  | 3   |
| CLIM 319 | Air Pollution  | 3   | GEOL 306 | Soil Science   | 3   |
| CLIM 412 | Physical Oceanography  | 3   | GEOL 313 | Hydrogeology   | 3   |
| COMM 399 | Special Topics in Communication  | 1-3 | GEOL 320 | Geology of Earth Resources   | 3   |
| COMM 670 | Social Marketing   | 3   | GEOL 332 | Paleoclimatology   | 3   |
| COMM 690 | Special Topics in Communication  | 3   | GEOL 363 | Coastal Morphology and Processes   | 4   |
| CONF 651 | Collaborative Community Action Participatory Governance  | 3   | GEOL 458 | Chemical Oceanography  | 3   |
| CONF 682 | Principles of Environmental Conflict Resolution  | 3   | GGG 102  | Physical Geography (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )  | 3   |
| CONF 683 | Environmental Conflict Resolution: Situation Assessment, Process Design and Best Practices   | 3   | GGG 103  | Human Geography (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )   | 3   |
| CONS 401 | Conservation Theory  | 3   | GGG 121  | Dynamic Atmosphere and Hydrosphere (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                        | 4   |
| CONS 402 | Applied Conservation   | 4   | GGG 122  | Dynamic Geosphere and Ecosphere  | 4   |
| CONS 404 | Biodiversity Monitoring  | 4   | GGG 302  | Global Environmental Hazards   | 3   |
| CONS 490 | RS: Integrated Conservation Strategies (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                      | 3   | GGG 303  | Geography of Resource Conservation (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                        | 3   |
| CONS 491 | RS: Conservation Management Planning (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                        | 4   | GGG 304  | Population Geography (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                                      | 3   |
| EDCI 573 | Teaching Science in the Secondary School   | 3   | GGG 312  | Physical Climatology   | 3   |
| EVPP 108 | Ecosphere - Introduction to Environmental Science I-Lecture (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 3   | GGG 314  | Severe and Extreme Weather   | 3   |
| EVPP 109 | Ecosphere- Introduction to Environmental Science I- Lab (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )     | 1   | HIST 615 | Problems in American History   | 1-6 |
| EVPP 112 | Ecosphere: Introduction to Environmental Science II-Lecture (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 3   | INTS 102 | Global Networks and Communities (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                           | 6   |
| EVPP 113 | Ecosphere: Introduction to Environmental Science II-Lab (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )     | 1   | INTS 103 | Human Creativity: Science and Art (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                         | 6   |
| EVPP 201 | Environment and You: Issues for the Twenty-First Century (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )    | 3   | INTS 211 | Introduction to Conservation Studies (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                      | 3-6 |
| EVPP 336 | Human Dimensions of the Environment  | 3   | INTS 311 | The Mysteries of Migration: Consequences for Conservation (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 6   |
|          |  |     | INTS 371 | Food Systems and Policy (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                                   | 3   |
|          |  |     | INTS 401 | Conservation Biology (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                                      | 6   |
|          |  |     | INTS 403 | Conservation Behavior (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                                     | 6   |
|          |  |     | INTS 470 | Professional Pathways in Sustainable Food Systems  | 1   |

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| PHIL 243 | Global Environmental Ethics (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                                 | 3 |
| PHIL 343 | Topics in Environmental Philosophy (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )                          | 3 |
| PHYS 111 | Introduction to the Fundamentals of Atmospheric Science (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> )     | 3 |
| PHYS 112 | Introduction to the Fundamentals of Atmospheric Science Lab (Mason Core) ( <a href="http://catalog.gmu.edu/mason-core/">http://catalog.gmu.edu/mason-core/</a> ) | 1 |
| PHYS 331 | Physics of Renewable Energy  | 3 |
| PHYS 385 | Materials Science with Applications to Renewable Energy  | 3 |
| PRLS 501 | Introduction to Natural Resources Law  | 3 |
| USST 301 | Urban Growth in a Shrinking World  | 3 |