



CENTER FOR LEADERSHIP
IN GLOBAL SUSTAINABILITY
VIRGINIA TECH

Executive Master of Natural Resources

A PROGRAM GUIDE FOR THE GRADUATE DEGREE

CONNECT WITH US

VISIT: cligs.vt.edu ■ EMAIL: CLIGS@vt.edu ■ CALL: 571-858-3338

The Center for Leadership in Global Sustainability (CLiGS) is housed within Virginia Tech's College of Natural Resources and Environment and headquartered in Arlington, Virginia, near Washington, D.C.



COLLEGE OF NATURAL
RESOURCES AND ENVIRONMENT
CENTER FOR LEADERSHIP
IN GLOBAL SUSTAINABILITY
VIRGINIA TECH.



Dr. David P. Robertson

CONTENTS

2	Program Director Letter
3	Program Overview
4	XMNR Pedagogy
6	XMNR Courses
9	System Overview: Climate Change
13	Sample Schedule: 2-Day Virtual Meeting
14	Sample Schedule: 3-Day In-Person Meeting
16	Global Study
17	From Our Alums
19	From Our Students
20	Student Support
21	Application Info

Welcome, Future Sustainability and Climate Leaders!

As sustainable development, environmental justice, and climate resilience become more urgent, the demand for professionals with the skills required to address these issues grows. The Executive Master of Natural Resources (XMNR) program equips students with the credentials, competencies, confidence, and connections to advance and change their careers and to have greater influence and impact in the workplace, in their communities, and in the world.

Perhaps more than others, sustainability professionals are keenly aware of the interconnectedness and interdependence between human activity and the environment. Any meaningful change for the better must be a holistic systems change.

The integrated curriculum of the XMNR is built on a transformational systems approach to learning, leadership, and change. It comprises a series of required courses and interactive learning modules taught by teams of faculty who represent different perspectives and areas of expertise. The courses and modules are cumulative, building on one another over time, increasing in scale and complexity as students learn and apply new knowledge and skills each month and each semester.

Executive-style graduate programs are not just for current and future executives but for anyone who is interested in a cohort-based and peer-to-peer learning experience focusing on professional and leadership development. Each cohort is diverse and enables students to work within organizations in civil society, business, and government. Everyone's varied experiences and expertise contribute to the engaging and rewarding learning environment.

We look forward to welcoming you to the next XMNR cohort!

Sincerely,

Dr. David P. Robertson
Program Director,
Executive Master of Natural Resources

XMNR Students

Each XMNR cohort includes a truly exceptional and diverse group of students. They work in business, government, and non-profit organizations; represent urban and rural communities; and offer different generational and cultural perspectives. Students' diverse academic, professional, geographic, and cultural backgrounds make for a rich peer-to-peer learning experience.

Program Overview

The Executive Master of Natural Resources (XMNR) is an accelerated (1-year) graduate degree program that combines the best of in-person and online education in an innovative hybrid cohort-based curriculum focused on systems change for sustainability. The XMNR program is a transformative learning and leadership development experience that educates, inspires, and empowers professionals to address current and emerging challenges in sustainable development, environmental justice, climate resilience, and related topics. Students learn to make sense of complex environmental and sustainability systems, apply advanced leadership strategies and practices, engage diverse stakeholders in real-world case projects, and improve their overall professional performance to advance their careers.

AT A GLANCE

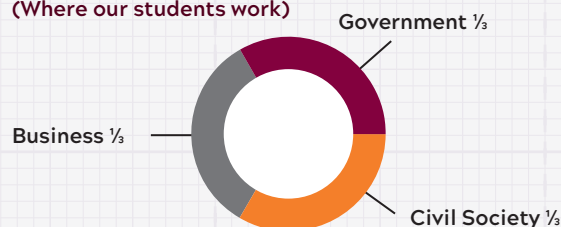
SCHEDULE & TIMELINE	12 months (3 semesters); includes 11 weekend meetings (5 on campus + 6 virtually)
PROGRAM BEGINS	January
LOCATION	Hybrid—Washington, D.C. metro area + online + international trip
GLOBAL STUDY	One 10-day international trip. Locations are selected by faculty each year. Previous destinations have included China, Egypt, India, Mexico, Morocco, South Africa, and Turkey
ENGLISH PROFICIENCY	Yes
COST	\$41,500* (total cost)

*Cost includes books and supplies, as well as catered meals during on-campus study weekends, and Global Study trip except for international airfare.

Please check our website for current pricing, admissions deadlines, and financial aid.

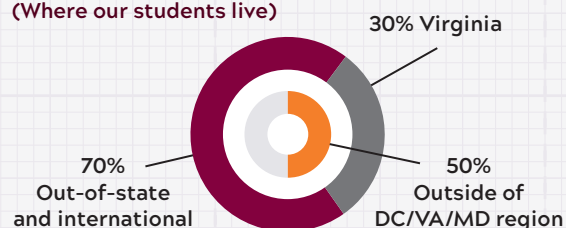
SECTOR

(Where our students work)



GEOGRAPHY

(Where our students live)



~30 STUDENTS PER COHORT



AVERAGE AGE: 37 • AGE RANGE: ~25–60



XMNR Pedagogy: Systems Learning, Leadership, and Change

The XMNR program is taught in **10 courses**, over **3 semesters**, in **1 year**.

We build the capacity of **individuals** to work in **teams**, **organizations**, and **networks** to lead systems change. What we teach in class today, you can use at work tomorrow. We emphasize **experiential learning** and focus on the needs and interests of individual students. We take advantage of a diverse cohort of professionals to enable effective **peer-to-peer learning**.

The curriculum is **integrated**—across courses and with the workplace—and **cumulative**, with content increasing in complexity and scale each month, including a gradual shift from a local/domestic to international/global focus.

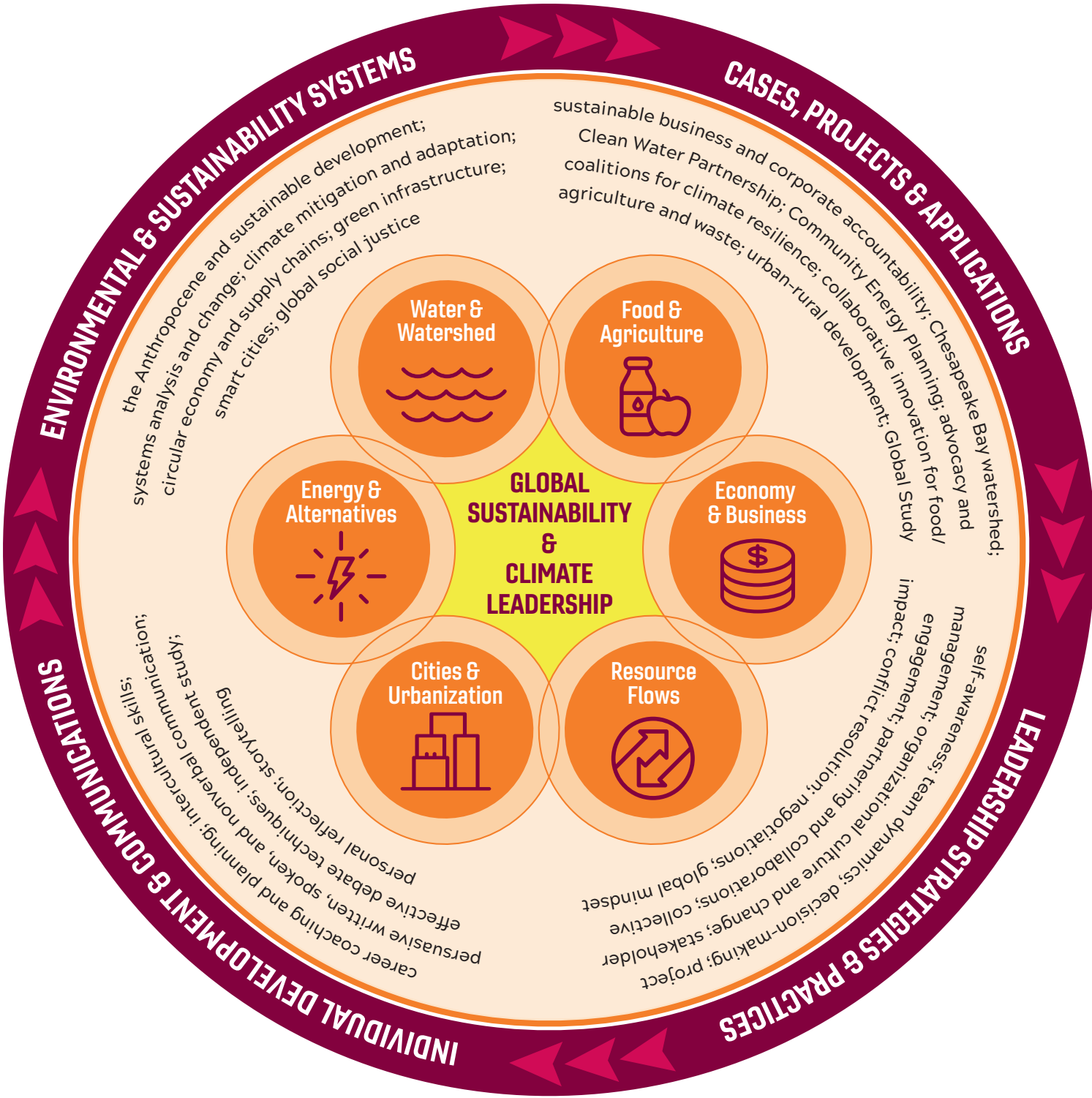
Individual assignments and collaborative group projects build over time, often cutting across multiple classes and spanning multiple months. Students apply the lessons they learn to their professional work and engage in **applied projects** with real situations and clients.

XMNR FORMAT

The XMNR is offered in a hybrid format with a combination of learning modes, including:

- in-person, face-to-face classroom meetings led by faculty
- synchronous virtual class meetings led by faculty
- teamwork and peer-to-peer learning on student-led projects via in-person and remote teams
- asynchronous online coursework, individual assignments, and independent study
- fieldwork and professional engagement activities, including a Global Study

OVERVIEW OF THE THEMES AND TOPICS COVERED DURING THE PROGRAM



XMNR Courses

SEMESTER 1 (SPRING)

INTRODUCTION TO LEADERSHIP FOR SUSTAINABILITY

Leadership and Communications for Sustainability Professionals

This course will introduce basic professional leadership and communications best practices and enable students to craft a personalized plan to develop targeted competencies. Students will develop personal leadership and communication plans and have access to individualized advising and coaching with professors. Key competencies include:

- Persuasive communication and communication for collaboration, within teams and within and across organizations, focused on sustainability topics
- Influence skills, such as emotional intelligence, self-awareness, empathy, active listening, influence without authority, intercultural competence, and networking
- Professional communication best practices, including framing and presentation skills

Strategies for Sustainability

In this course, students will learn strategies to influence sustainability outcomes, focus on social science approaches to influencing and explaining human behavior, and work on applied projects to design interventions to address complex sustainability challenges. Students review key theories and dive deeply into the strategies that practicing sustainability professionals need to know to be successful in their work. Specific strategies include:

- Stakeholder analysis and engagement
- Transparency, reporting metrics, and accountability
- Cross-sector, public-private, and community-based partnering and partnerships
- Collective impact and large-scale systems change strategies
- Collaborative innovation and design processes

Sustainability Systems

A big part of why sustainability issues are so complex is because they are all interconnected and cannot be solved in a vacuum. To be effective, sustainability professionals need to be systems thinkers first. This course introduces students to:

- Basic competencies, language, and confidence needed to engage with other experts in collaborative problem-solving processes of pressing global sustainability challenges
- Focus on sustainability systems represented in the United Nations Sustainable Development Goals (water, climate, agriculture, energy, poverty, urbanization, global material flows, biodiversity) and other leading institutions
- System properties and other leverage points for influencing change
- Collaborative skills needed to work in and lead multidisciplinary teams
- Adaptive learning and reframing problems and questions

Sustainability Case Studies

Students will work on applications to explain and help guide management and planning of environmental and natural resource systems, such as water, food and agriculture, climate, and energy. Examining our own neighborhoods, cities, and regions can provide insights into the challenges of sustainability on a global scale. Each student will investigate issues and places of personal or professional interest, and use the information gathered to develop a case study illustrating an important aspect of sustainability. This course provides opportunities to:

- Learn from and draw upon insights from the perspectives and experiences of fellow students, guest faculty, and subject matter experts
- Practice creative thinking and writing skills
- Hone research and analytical skills



SEMESTER 2 (SUMMER)

INNOVATIONS IN SUSTAINABLE DEVELOPMENT

Topics in Global Sustainability and Climate Leadership

This course is an advanced exploration of topical studies related to the science, leadership, communications, and related skills needed by environmental and sustainability professionals to address issues, like climate change, that are complex, large scale, and rapidly emerging. Topics and formats vary according to contemporary issues that align with student interests and career goals.

Constructing Sustainability

In the past several decades, sustainability and sustainable development have gained status in political, scientific, business, religious, and cultural institutions and are now guiding principles that frame and shape public policy and private practice at multiple scales. This interdisciplinary course encourages students to consider how they can engage science, policy, and professional and civic institutions in constructing sustainability. The course content is focused on examining the science, policy, and practice of sustainability and sustainable development in a global context. Topics include history, current status, and future prospects of sustainability and sustainable development from economic, social, and ecological perspectives.

Courses that comprise the XMNR curriculum are seamlessly interwoven into a **unified learning experience**. Within each course, students have a great deal of **flexibility** to pursue their own individual **academic** and **professional** interests.

Faculty advisors work with each student to help them **tailor and customize** the curriculum to their own needs. In addition, students have the opportunity to design and complete one or more **independent study capstone projects** to help them achieve their own academic and career goals.

SEMESTER 3 (FALL)

PROFESSIONAL PRACTICE FOR A CHANGING WORLD

Independent Study

Students have an opportunity to focus on independent research, analysis, engagement, and reflection on a topic or project of personal interest. Faculty advisors assist with topic and project selection, proposal development, and deliverables. Topics and projects can be related to student's employment, career advancement and change goals, or general intellectual interests.

Leadership for Sustainability

This course is designed to help sustainability professionals develop advanced leadership skills so they can have more significant influence in their organizations, communities, and networks. Leadership for sustainability can take many forms depending on the specific situation and people involved. In almost all cases, it requires diverse individuals and organizations to work together across cultural and geographic boundaries to influence complex and dynamic situations at multiple scales, local to global. Specific leadership skills and practices include:

- Leadership theory for wicked situations facilitating direction, alignment, and commitment
- Individual-level tools, such as personality traits, conflict and influence style, integrity, and trust
- Team tools, such as group principles, feedback, project management, and evaluation
- Organization tools, including strategic planning, indicators, and organizational change
- Network-level tools, including boundary-spanning leadership, cross-sector collaboration, public-private partnerships, and collective impact

Global Issues in Environmental Sustainability

This course is designed to support a Global Study experience scheduled for the same semester. Its purpose is to teach sustainability professionals to think globally about sustainability challenges and their career, to situate their own professional work in a global context, to better understand sustainability situations and tools for examining them, and to practice team/collaborative project management and problem-solving skills. Areas of focus include the global Anthropocene; sustainability case analysis; leadership; and cultural competencies. The course provides students with important global context for issues examined during the international experience while also encouraging them to consider the challenges and rewards of working in a different culture.

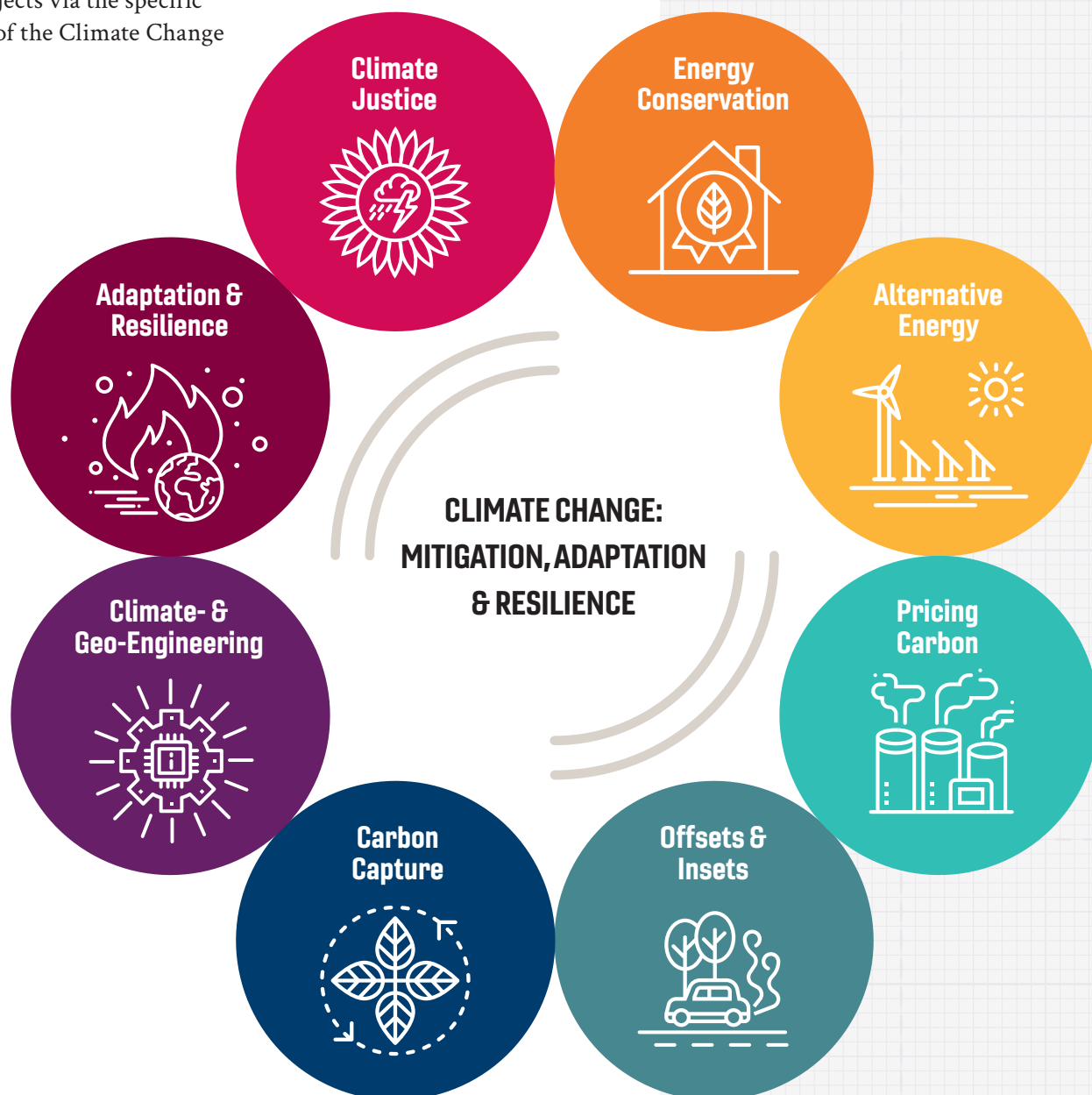
Study Abroad (Global Study)

This course includes a multi-month series of learning modules and a 10-day international trip that provide students with opportunities to gain new knowledge, develop skills, and expand their networks as sustainability professionals operating in an international and global context. The details of the international experience vary each year depending on location, but the overall learning outcomes and activities are similar from place to place and year to year:

- Developing a global perspective
- Gaining international travel and work experience
- Networking with international sustainability professionals
- Developing intercultural competency skills
- Acquiring topic-specific and place-based knowledge by researching, analyzing, and communicating about specific sustainability cases and situations

Systems Approach to Problem Solving for Sustainability: The Example of Climate Change

Each month throughout the program, students examine numerous socio-ecological **systems**, such as water, energy, climate, food and agriculture, etc.—to learn the **complexities** and **interdependencies** of each system as well as **best practices** for systems change and improvement. The graphic below illustrates our **integrated approach** to teaching and learning about these subjects via the specific example of the Climate Change module.



Climate change is one of the existential challenges of the Anthropocene. Fortunately, we know the **science, innovation, policy, and financing** needed to mitigate climate change. Unfortunately, productive **public debate** about climate action is difficult. Students evaluate different **mitigation and adaptation** strategies and learn to **frame the conversation** productively. Below are some of the climate change topics we address from a holistic systems perspective and through real-world cases and team projects.



CLIMATE JUSTICE: VULNERABILITY, RISK & SECURITY

Climate change already has increased economic inequality and risk exposure of vulnerable populations between and within countries. For example, per capita GDP has been reduced 17-31% for already-poor countries, increasing inequality with richer countries more than 25%.¹ Climate justice advocates contend that rich countries should pay for damages their carbon-fueled development is causing poor countries, and that rich countries should also subsidize the development of carbon-free energy sources in poorer countries. Similar challenges exist within countries, as wealthier and poorer populations are impacted differently by climate change including the unequal economic, health, and security risks associated with heatwaves, wildfire, flooding, and air quality.



ENERGY CONSERVATION & EFFICIENCY

The energy required to produce a unit of service or good has been shrinking because innovations in efficiency have been driving down the material and energy inputs required to produce a unit of economic growth. This trend will likely continue as technological innovations respond to resource scarcities and profit opportunities. Green building technology and transit-oriented infrastructure are examples of climate mitigation via energy management and conservation. However, most climate mitigation efforts involve some cost that reduces economic growth now and in the future and/or requires government regulations that not only can be expensive, but may curtail market innovation.



ALTERNATIVE ENERGY & ENERGY TRANSITIONS

Coal today accounts for about 40% of global power generation and more than 40% of energy-related carbon dioxide emissions,² and none of the alternatives for a just and sustainable energy transition are easy to implement. Renewables, such as solar and wind, have different pros and cons. Biofuels, although an exciting option, may not be a long-term solution. Hydroelectric is also problematic because of associated massive methane emissions due to decomposing sediment. Electrification is a massive decarbonization driver for transportation and buildings, but it has enormous implications for the power sector. Natural gas can have an important role if it replaces coal as a dominant fuel, but to meet the carbon emission limits necessary to reduce rising global temperatures, the amount of electricity generated by natural gas would have to decrease by 20-35% by 2030.³



PRICING CARBON & MARKET STRATEGIES

“Pricing Carbon” mitigation strategies, such as carbon tax and cap and trade, assume putting a price on carbon will motivate emitters to emit less, people to use less, and the market to fuel alternative sources of energy. How much should carbon cost? That is a contentious question that often depends on your ideological position. Effective economic and market-based strategies will require transparent and accountable cross-sector governance.



EMISSIONS OFFSETS & INSETS

An “offset” is a unit of carbon dioxide equivalent (CO₂e) that is reduced, avoided, or sequestered to compensate for emissions occurring elsewhere. Rather than directly reduce emissions, emitters can buy offset credits which represent emission reductions made elsewhere. Offsets are controversial because it is difficult to know what would have happened if the offset had not been purchased. “Insets” may provide a more rigorous way to mitigate because the GHG that is reduced, avoided, or sequestered by the emitters is within their own operations and value chains.⁴



CARBON CAPTURE, SEQUESTRATION & NETS

Estimates suggest that, in the U.S., agriculture could sequester as much as the transportation sector emits.⁵ Farming practices that reduce tilling, use cover crops and mulch, and employ precision agriculture could dramatically increase the carbon in soils, which would both sequester carbon and improve soil productivity. Another name for this strategy is Negative Emission Technologies, or NETs. Yet, the most effective carbon sequestration mechanism is still forests.



CLIMATE OR GEO-ENGINEERING

Traditionally considered controversial and impractical, climate engineering, or geo-engineering, is gaining traction. In the context of our classroom, we examine solar radiation management techniques intended to deliberately alter the climate system on a planetary scale, reversing or interrupting global warming. The other set of methods in climate engineering is carbon sequestration, which we examine separately.



ADAPTATION AND RESILIENCE

Even if we stop burning fossil fuels today, we are too late to avoid the consequences of temperature rise and will need to adapt to a hotter planet. What can we do to prepare in advance for the changes that are coming? Possible solutions include moving buildings and infrastructure away from flood-prone areas, moving farms north and away from the heat, engineering new crop species that are heat- and drought-tolerant, creating capacity to deal with new disease vectors and other public health concerns, etc. Adaptation and resilience is a critical topic and a set of practices that we address extensively throughout the curriculum.

REFERENCES

1. Noah S. Diffenbaugh and Marshall Burke. May 14, 2019. PNAS
2. “Coal 2019, Analysis and Forecasts to 2024,” International Energy Agency
3. “Annual Energy Outlook 2019 with projections to 2050.” U.S. Energy Information Administration, Office of Energy Analysis, U.S. Department of Energy
4. “Carbon Insetting: What It Is & How It Works.” January, 3, 2018. NativeEnergy
5. Zomer, Robert J.; Bossio, Deborah A.; Sommer, Rolf; Verchot, Louis V. 2017. Global Sequestration Potential of Increased Organic Carbon in Cropland Soils. *Scientific Reports*. 7: 15554

Read more on our blog:

- [XMNR students and alumni put the concept of climate resilience into practice](#)
- [Climate resilience of island nations and coastal cities: Cuba, Iceland, Amsterdam, Venice](#)
- [Virginia Beach: bracing for local impact of global climate change](#)
- [The rise of the climate professional](#)
- [Know your climate bias](#)
- [Sovereignty vs. sanctuary: perils of climate migration](#)
- [Global Study, Egypt: climate change, water, and agriculture](#)
- [Climate makes and breaks civilizations: lessons learned on the Nile](#)
- [Blazing trails to local and global sustainability change](#)
- [Climate change: a new twist on a very old story](#)

FROM THE CLASSROOM

As a part of their coursework in which they learn advanced leadership skills, such as building partnerships and cross-sector collaborations, XMNR students learn about specific real-world cases and have opportunities to meet and engage with the experts, analyze the data, and make recommendations about ongoing large-scale green infrastructure projects.



Personalized Learning

During each system module, students are encouraged to dig deeper into one or several topics of their choice within the given theme (e.g., climate mitigation and adaptation), research thoroughly, and contribute their findings and insights to team assignments. Similarly, each system assignment offers a chance to dig into specific cases and hone different leadership skills of the student's choosing: e.g., project management, negotiation, coalition building, conflict resolution, communications, and more.



Arlington County's Community Energy Plan: Collective Impact for Climate Leadership (An Example Class Project)


Students work with Arlington County to evaluate two key programs—the Community Energy Plan and the Green Building Incentive Program—that address energy issues, and examine the role of urban energy systems in climate mitigation and the role of community energy planning as a systems approach to municipal energy management. Students use the Collective Impact framework, as a suite of best practices for organizing multi-stakeholder collaborative efforts, to analyze a community energy planning process and identify major changes in the rapidly-evolving energy sector that create opportunities and challenges for community energy planning and climate action. This is one of a series of case projects with real-world clients that students complete during the program.

Sample Schedule: 2-Day Virtual Meeting







(based on class meeting in April, when we focus on Water Systems and a case study project on Partnering for Water)

PRIOR TO CLASS MEETINGS	Students prepare to engage with their classmates, faculty, and guest experts via readings, research, writing, and reflection exercises.
DURING CLASS MEETINGS	Students interact with faculty and guests through a series of activities including lectures, panel presentations, debriefs and discussions, and team projects.
FOLLOWING CLASS MEETINGS	Students work individually and in teams to complete projects and assignments that build on and apply lessons from the weekend and prior months.

SATURDAY [main classroom on Zoom]

	11:00–11:30 am	Welcome, program updates, and overview of weekend class meeting
	11:30 am–12:30 pm	Breakout rooms for individuals and teams to prepare for the remainder of weekend
	12:30–1:15 pm	Lunch break & networking
	1:15–2:15 pm	Introduction to Cross-Sector Partnering & Green Infrastructure lecture and discussion
	2:15–2:30 pm	Break
	2:30–4:00 pm	Clean Water Partnership panel presentation and open discussion with guest experts
	4:00–4:30 pm	Break & networking
	4:30–6:30 pm	2 concurrent sessions: Water Systems Debrief (Group 1) and Water Words That Work (Group 2)
	6:30–7:30 pm	Dinner break
	7:30–9:00 pm	Teamwork time in breakout rooms (optional, to be determined by each team as needed)

SUNDAY [main classroom on Zoom]

	11:00 am–1:00 pm	2 concurrent sessions: Water Words That Work (Group 1) and Water Systems Debrief (Group 2)
	1:00–1:45 pm	Lunch break & networking
	1:45–3:30 pm	Team Development: Five Dysfunctions of a Team & How to Give Effective Feedback
	3:30–4:00 pm	Break
	4:00–5:00 pm	Primer on Project Management & Team Leadership
	5:00–7:00 pm	Teamwork on Case Project on Green Infrastructure and Clean Water Partnership

	whole class activity
	small group/ individual work
	break/food/ networking

Sample Schedule: 3-Day In-Person Meeting

(based on a class meeting in May, in the Washington, D.C. metro area, when we focus on Climate Systems, especially mitigation strategies)

FRIDAY		
	1 pm–1:15 pm	Welcome, introductions, and overview
	1:15 pm–2:45 pm	Systems thinking for climate leadership (systems assignment debrief)
	2:45 pm–3:00 pm	Break & networking
	3:00 pm–4:30 pm	Collective impact strategies for climate action
	4:30 pm–5:00 pm	Break & networking
	5:00 pm–6:30 pm	Case study of Arlington’s Community Energy Plan for climate mitigation
	6:30 pm–7:30 pm	Catered dinner & networking
	7:30 pm–9:00 pm	Emerging topics in climate justice and resilience
SATURDAY		
	8:00 am–9:30 am	Arlington’s Green Building Density Incentive Program (panel with guest experts)
	9:30 am–10:00 am	Break & networking
	10:00 am–11:30 am	Arlington’s Green Home Choice program (panel with guest experts)
	11:30 am–12:30 pm	Lunch break & networking
	12:30 pm–2:30 pm	Team project planning & faculty check-in
	2:30 pm–3:00 pm	Break & networking
	3:00 pm–5:30 pm	Team project time
	5:30 pm–6:00 pm	Break & networking
	6:00 pm–8:00 pm	Dinner on own or in small groups with faculty host (optional)
	8:00 pm–9:00 pm	Social happy hour (optional)



Team project work session in the fall of 2019.

SUNDAY



8:00 am–10:00 am Individual Development Process (IDP), advising and coaching



10:00 am–10:30 am Break & networking



10:30 am–12:00 pm Alumni career panel, featuring climate leaders



12:00 pm–1:00 pm Catered lunch & networking with alumni



1:00 pm–2:30 pm Best practices in climate communications



2:30 pm–4:00 pm Team project time



4:00 pm Adjourn

REDUCING IMPACT

Travel is a significant source of carbon emissions, and we want to do everything in our power to help mitigate climate change. That is why we partner with **terrapass**, an environmental company providing carbon offsets through clean energy and greenhouse gas emission-reduction projects.

Learn
more about
Global Study
on our site.

Global Study

All XMNR students participate in a Global Study—a 10-day international trip designed to offer students opportunities to immerse themselves in a new culture and learn about the work of sustainability professionals worldwide. Global Study destinations are built into the cohort experience, and tuition covers all travel costs except international airfare.

Given the dynamic nature of travel at the moment, we are following Virginia Tech's travel and study abroad policies to inform our decisions on destinations and timing. If your circumstances might prevent you from traveling abroad for any reason, please talk with our Academic Advisor, Amy Hubbard (ahubb09@vt.edu) to discuss the possibilities of other options for meeting this degree requirement.

GLOBAL STUDY DESTINATIONS

Each year, XMNR students travel as a cohort and work in small groups on projects with international faculty and local experts. Below are some of the previous destinations. Locations are selected by faculty and are typically announced to the students in March.





XMNR students in Arlington, VA, in the fall of 2019.

From Our Alums

"I'm really grateful that I was able to learn some of the leadership strategies and techniques because I feel that is what I gained from the program the most: learning how to work with different leadership styles."

TIM HOWELL

"I was looking to move my career from a mid-level government employee to an executive position. After graduating, a year and a half later I became the executive director of a non-profit."

KATE FRITZ

"What was most valuable for me was the confidence I gained in discussing important and complex sustainability issues. I now have the credentials to speak up and make an impact."

ARSLAN AHMAD

"This degree has helped me to build an international work portfolio and is also helpful as I assist in urban renewal programs in my hometown of Detroit. Challenges of sustainability are truly relevant wherever we find ourselves."

MAGGIE STRIZ CALNIN

"Among many important takeaways from the XMNR program was the notion that real, meaningful impact doesn't come from knowing the solutions; it comes from implementing them."

JEFFREY (JEFF) MERRITT

For
more stories
from our
alums, visit
our blog.



Who Are Our Alums?

XMNR alums make career changes and advancements during and after their time in the program, and work in every sector of the economy, including:

NONPROFITS

- Executive Director, Alliance for the Chesapeake Bay
- Deputy Director, Protect Oceans Lands and Waters, The Nature Conservancy
- Climate Advisor, Buildings and Energy, Natural Resources Defense Council
- Land and Climate Program Manager, Land Trust Alliance
- Senior Foundations Officer, Environmental Defense Fund
- Director of Advocacy, Healthy Ocean Coalition
- Senior Program Manager, National Geographic

GOVERNMENT

- International Trade Policy Leader, USDA Foreign Agricultural Service (FAS)
- National Program Coordinator, U.S. Environmental Protection Agency
- Sustainability and Environmental Specialist, U.S. Geological Survey
- Deputy Director, New York City Department of Parks and Recreation
- Environmental Analyst, World Bank Group
- Forest Supervisor, USDA Forest Service
- Policy Analyst, National Oceanic and Atmospheric Administration

BUSINESS

- Director of Environmental Programs and Regulatory Affairs, Exelon Nuclear
- Corporate Sustainability Manager, Swire Coca-Cola
- Senior Program Manager, Solar Energy Industries Association
- Sustainability Program Manager, Sierra Nevada Brewing Company
- Director of External Affairs, Carbon Capture Inc.
- Global Director of Social Impact and Sustainability, Starbucks
- Sustainability Data and Analytics Lead, Indeed.com
- Development Manager, Sun Tribe Solar

For a more detailed list of **XMNR alums jobs** please visit our site or contact our Academic Advisor **[Amy Hubbard](#)**.

From Our Students

Toward the end of the program year, we ask each student to reflect on their experience. These reflections take the form of letters to future XMNR students or employers and focus on personal highlights of the program. Below are only a handful of excerpts from some of the student letters*, but they offer a vivid illustration of the transformative effect of the XMNR learning experience.

“The program offered me an expanded set of tools and concepts needed in leadership for sustainability. One foundational concept, systems thinking learning, had a profound effect on me and opened my eyes to how complex or ‘wicked’ the problem of sustainability can be.”

“The XMNR program has helped me build on the foundation of over two decades in public service, and helped build the courage I need to make this next step to engage new partners in coalitions to find innovative and creative solutions.”

“Being able to work across boundaries and differences is paramount if you wish to affect change in the incredibly complex field of sustainability. Sustainability issues are wicked and interconnected, and therefore require collaboration from a large group of individuals and stakeholders.”

“Collaborating closely with women who have held leadership roles in male-dominated fields, with people who have served our country, who have expertise in financial services and consulting, who work in academia, have lived abroad, or are published authors has enriched my life and opened my eyes to new perspectives.”

*The excerpts are unattributed to respect our students' privacy, as these letters are part of a class assignment.



XMNR students working in small groups during the February, 2020 study session.

“When I came into this program I was in search of growth and meaning, and I have found that in spades with the XMNR program at Virginia Tech.”

For
more student
spotlights,
visit our
blog.



Virginia Tech has been awarded designations as “Military Friendly, Silver Medal” by militaryfriendly.com and “Best for Vets” by MilitaryTimes.com. Students who are veterans, active military, or military spouses comprise nearly 20 percent of each XMNR cohort.

Student Support

Whether it’s student advising, industry networking opportunities, career coaching, financial aid, or veterans’ benefits, all XMNR students can count on the support of Virginia Tech’s faculty and staff.

STUDENT ADVISING

A key part of the XMNR experience is one-on-one advising and the Individual Development Process (IDP), an independent project based on each student’s professional goals or interests and closely curated by an XMNR faculty member. The guidance students receive during their IDPs often leads to career- and life-altering insights, realizations, and relationships built along the way.

PROFESSIONAL CONNECTIONS

During the course of one year, students build a strong professional network including their 30–35 classmates and more than 50 program faculty, guest speakers, panelists, and project partners—all experts from a wide range of sustainability functions and backgrounds. Many of our students’ career pivots began by meeting the right people or learning about the right opportunity in our classroom.

CAREER COACHING

All our graduate students receive personal career coaching. Even if you have a solid grasp of your values and skills, career coaching can help you advance in your career or pivot successfully to a new one.

FINANCIAL AID

Students may qualify for financial aid, usually in the form of student loans.

XMNR Program Application

READY TO APPLY?

Please review application information and requirements carefully before applying.

IMPORTANT APPLICATION INFORMATION

- Cohorts start each January and have a limited number of spaces
- Admissions are processed on a rolling basis
- No GRE required
- Financial aid available, usually in the form of student loans
- No additional cost for out-of-state or international students
- Admission decisions are based on both professional and academic experience

REQUIREMENTS FOR ADMISSION

- Undergraduate degree (minimum GPA of 3.0*)
- Virginia Tech Application for Admission
- \$75 non-refundable application fee
- Current resume/CV
- Contact information for two references (academic or professional)
- Copies of official relevant academic transcripts
- English proficiency assessment is required for international students per Graduate School requirements

Have more questions?



Connect with our Academic Advisor Amy Hubbard:
ahubb09@vt.edu or 571-858-3338.

*Talk to our Academic Advisor if your undergraduate GPA is below 3.0.



Apply
Now!