

# Master of Science in Sustainability Management

#### **OVERVIEW**

Columbia University in the City of New York offers the world's foremost master's degree programs in applied sustainability studies. The Master of Science in Sustainability Management program is offered by Columbia's School of Professional Studies in partnership with the Columbia Climate School. Bolstered by the cutting-edge research of the Climate School's Earth Institute and the Lamont-Doherty Earth Observatory, the MS in Sustainability Management provides students with the practical knowledge and training to become leaders in this rapidly growing field. Courses are taught by the world's premier sustainability academics and researchers, along with the leading sustainability practitioners in New York City.

Students learn the use of innovative management tools and quantitative analysis to help business, government, and nonprofit organizations address environmental impacts and risks in order to achieve sustainability.

The program takes a bold and innovative approach to sustainability by prioritizing the protection of ecological systems and resources, as well as analyzing social and economic opportunities for all people. To achieve sustainable development, the program is training a new generation of leaders to tackle sustainability issues in all facets of society.

The MS in Sustainability Management prepares students for management careers that place an emphasis on strategic and financial analysis. The curriculum emphasizes the physical dimensions of sustainability (e.g., water, energy, greenhouse gas emissions, environmental infrastructure), general and financial

management, economics, quantitative analysis, and policy so that students can thrive in the job market.

There is a growing demand for sustainability professionals in a range of sectors, and many managers, engineers, lawyers, marketers, communications professionals, policymakers, and scientists now have some form of sustainability responsibility in their positions.

Graduates have access to Columbia's unparalleled resources and professional network of sustainability professionals, along with its global alumni base. New York City serves students as a living laboratory for developments in sustainability practice, and as a source of many employers who hire program graduates.

The MS in Sustainability Management program is customized for working professionals. The program is offered as both a full- and part-time course of study. Courses are held primarily in the evenings, and the degree can be completed without daytime courses. The program is structured to enable part-time students to maintain full-time employment while pursuing their degree requirements.

Degree recipients receive the knowledge, training, and tools to tackle our most complex and disruptive environmental and natural resource problems, with the goal of establishing a sustainable world.







The Earth Institute, which is now part of Columbia University's Climate School, blends research in the physical and social sciences, education, and practical solutions to help guide the world onto a path toward sustainability. The Columbia Climate School will provide the scholarship needed to tackle climate change and its related challenges.

The School of Professional Studies offers innovative and rigorous programs that focus on the principles of cross-disciplinary knowledge, lifelong learning and an agile response to a changing environment. Its programs combine theory with practice, leverage the expertise of students and faculty, and connect global constituencies.

#### **CURRICULUM**

Students must successfully complete 36 credits or 12 courses. They have the flexibility to choose from some 70+ courses in the program designed especially for them, as well as from pre-approved courses taught throughout Columbia. Courses are categorized into five areas of study:

#### 1. Integrative Courses in Sustainability Management

(9 credits or 3 courses)

These courses give students an understanding of the elements of sustainability by teaching them about the complex interactions between natural and social systems which sustainability practitioners must always consider.

- Sustainability Management (Required)
- Integrative Capstone Workshop (Required) \*
- Practicum in Innovative Sustainability Leadership
- Ethics for Sustainability Management and Finance
- Writing about Global Science for the International Media
- Consumerism and Sustainability
- Geographies of Environmental Justice and Sustainability
- and more...

#### 2. Economics and Quantitative Analysis

(6 credits or 2 courses)

The economics requirement reflects the fact that sustainability managers must understand the financial costs and benefits of sustainability practice. After completing this requirement, students will have a good understanding of what sustainability means from an economic perspective, both in the traditional and broader socioeconomic sense.

- Cost-Benefit Analysis
- Sustainable Entrepreneurship
- Geographic Information Systems (GIS) for Sustainability Management
- Sustainability Metrics
- Statistics for Sustainability Management
- GHG Emissions: Measuring and Minimizing the Carbon Footprint
- and more...

#### 3. The Physical Dimensions of Sustainability

Management (9 credits or 3 courses)

The physical dimensions requirement teaches students about the connections between environmental inputs and outputs, and their effects on the natural environment. The emphasis in this area of study is on understanding the environmental impacts from organizational activities.

- Earth's Climate System
- Theory and Practice of Life Cycle Assessment
- Reversing the Biodiversity Crisis
- Sustainable Agriculture
- The Science of Urban Ecology
- Water Resources and Climate
- Equity, Energy, and the Built Environment
- and more...

### 4. The Public Policy Environment of Sustainability

**Management** (3 credits or 1 course)

Policy shapes how urban environments are managed, and sustainability practitioners must be able to analyze public policy and its effects on what they are able to do. This requirement provides students with an understanding of current policy and strengthens their ability to react to future policy developments as they emerge.

- Policy and Legal Context of Sustainability Management
- International Environmental Law
- Fashion Policy and The Politics of Government Action
- Building Resilience in 21st Century Detroit: Roots and Remedies to Racial Injustice
- Environmental Infrastructure for Sustainable Cities
- and more...

#### 5. General and Financial Management

(6 credits or 2 courses)

The general and financial management area of study teaches the skills that are essential to shaping the behavior of an organization to carry out effective sustainability initiatives. Students learn how to shape organizational culture and employee behavior; even as new environmental challenges arise. Financial management courses provide a foundation in finance and financial models, including how environmental markets provide incentives to advance sustainability.

- Sustainable Finance
- Corporate Sustainability Reporting and Strategy
- Financing the Clean Energy Economy
- Solar Project Development
- Circular Economy for Sustainability Professionals
- Sustainable Fashion and Startup Strategy
- and more...

#### **6. Elective** (3 credits or 1 course)

The elective allows students the flexibility to dive deeper in a desired area of sustainability management and can be completed with any SUMA course or any pre-approved course.

# ★ Integrative Capstone Workshop in Sustainability Management

Students in this course undertake a sustainability project for a real-world client, under the supervision of a faculty advisor. By practicing sustainability management, students integrate and apply each element of the curriculum – management, quantitative analysis, science, and policy. In the process, the students experience the constraints under which sustainability managers operate, and they gain valuable, practical experience. The students work in teams, on a pro bono basis, for public and nonprofit organizations, both in the United States and abroad. The projects involve a variety of salient sustainability issues, including energy, climate resilience, resource conservation, biodiversity, markets, and technology.

For more information on the Capstone Workshop projects, please visit the website:

sustainability.ei.columbia.edu/curriculum

#### CAREERS

Helping students and alumni meet their professional goals is a top priority of the program. Both students and alumni have access to a wealth of professional development services from the School of Professional Studies and the Climate School's Earth Institute. The School of Professional Studies offers the Career Design Lab, which provides tailored career services and programming in addition to self-directed online tools for professional development. The Climate School offers a broad sustainability-specific professional development program, which focuses on skill building, access to leading practitioners, career networking, and specialized job search strategies and tools. Initiatives include:

- Research, Fieldwork, and Internship Opportunities
- Climate & Sustainability Career Planning
- Access to Climate and Sustainability Practitioners
- Climate & Sustainability Alumni Network
- Associations & Clubs
- Fellowships & Scholarships

#### **FACULTY**

Accomplished and innovative sustainability practitioners, as well as world-class academics and researchers, bring real-world experience and practical insights to the program. The faculty teach students both the fundamental principles of sustainability management, as well as the latest innovations in the field.

#### **STUDENTS**

The students represent a cross-section of the industries and organizations actively incorporating sustainable initiatives into their everyday operations, along with those who seek to transition to sustainabilityfocused careers. The program's students are mission-driven and passionate about learning the management and scientific principles of sustainability.

#### Professional experience

37% of students enter with 3 to 5 years of professional experience

28% of students enter with 6 to 10 years of professional experience

20% of students enter with less than 2 years of professional experience

10% of students enter with 10 to 15 years of professional experience

5% of students enter with more than 15 years of professional experience

#### Where our graduates are employed





PRIVATE





NON-PROFIT/ **ACADEMIA** 





#### ALUMNI

Graduates transform how organizations do business by formulating and implementing sustainability strategies. The program has graduated more than 2,000 students, creating a formidable network of sustainability professionals. Alumni hold leading positions in large private firms, government agencies, and non-governmental organizations both in the United States and abroad.

#### Examples of alumni roles:

- Executive Director, Global Head of Sustainability Morgan Stanley
- Resilience Lead, Senior Project Director | Verizon
- Senior Manager, Sustainability and Legal Compliance
- Sustainability Manager | Natural Resources Defense Council
- Vice President of Workplace and Strategic Sourcing | Etsy
- Founder & CEO | Voltpost
- Environmental Planner | New York City Department of **Environmental Protection**
- Manager, Corporate Citzenship and Sustainability PepsiCo
- Head of Clean Energy Networks | Con Edison
- Climate Policy Consultant | UNICEF

#### **ADMISSIONS**

#### Time Commitment

The MS in Sustainability Management offers full-time and part-time options for those with current professional obligations, along with flexible course options, which can be tailored to students' specific career goals. Courses are held primarily in the evenings, and the degree can be completed without daytime courses. In fact, 70% of students enroll in the program on a part-time basis and complete the program in up to nine semesters, and 30% of our students enroll in the program on a full-time basis and complete the program in three semesters.

#### Who Should Apply

The MS in Sustainability Management is designed for those who wish to pursue a career in management that takes into account both the environment and the bottom line. It's ideal for professionals currently working in, or aspiring to be in, management positions in fields such as operations, consulting, sustainable finance and investing, energy, and transportation. The program welcomes professionals who are changing career paths. Practitioner experience is greatly valued, and accomplishments in the fields of sustainability management are considered. *Please note: college-level science, math, and economics are preferred.* 

#### **Fellowship Funding**

The program offers fellowships for use towards the cost of tuition for competitive candidates based on academic and professional merit.

#### **Application Deadlines**

Applications are accepted on a rolling basis. Prospective students are encouraged to apply early.

- Fall Admission: Final deadline is May 1
- Spring Admission: Final deadline is November 1

#### How to Apply

For complete information about how to apply to the program, please visit **www.sustainability.ei.columbia.edu** 

#### **Application Materials Checklist**

Only complete applications are reviewed.

- Completed online application form
- \$150 nonrefundable application fee
- Transcripts from all postsecondary schools
- Professional resumé
- Statement of academic purpose
- Two letters of recommendation
- Demonstration of English proficiency (if your first or native language is not English)
- Video essay

Please visit our website for a complete list of application requirements and admissions policies.

#### **BEST REASONS TO APPLY**



National Research Council



researchers, more than any

other university



# COLUMBIA'S GLOBAL ALUMNI NETWORK

with more than 3,000 environmental and sustainability professionals from various partner programs working at the **world's most influential** organizations

~100% of Sustainability Management program graduates report securing

## **EMPLOYMENT**

positions with a sustainability function



## PROGRAM CONTACT

Office of Admissions
212-854-9666
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