



# THE WORLD'S TOP SUSTAINABILITY PROGRAMS

MASTER OF SCIENCE  
IN SUSTAINABILITY  
MANAGEMENT

MASTER OF  
SCIENCE IN  
SUSTAINABILITY  
SCIENCE

CERTIFICATION OF  
PROFESSIONAL  
ACHIEVEMENT IN  
SUSTAINABILITY  
ANALYTICS

CERTIFICATION OF  
PROFESSIONAL  
ACHIEVEMENT IN  
SUSTAINABLE FINANCE

CERTIFICATION OF  
PROFESSIONAL  
ACHIEVEMENT IN  
SUSTAINABLE  
WATER MANAGEMENT

# 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. Bolstered by the leading-edge research of Columbia's Earth Institute and its Lamont-Doherty Earth Observatory, the Master of Science in Sustainability Management provides students with the practical knowledge and training to become leaders in the rapidly growing area. 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 Earth Institute, which manages the program along with the School of Professional Studies, is conducting and applying interdisciplinary scientific research while 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. Examples of typical job titles of Sustainability Management graduates may include:

- Global Director of Product Sustainability
- Director of Facilities and Sustainability
- Senior Manager, Sustainability and Legal Compliance
- Manager, Environment, Policy and Social Initiatives
- Energy and Sustainability Project Manager
- Assistant Administrator, U.S. Environmental Protection Agency

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; 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.



**Columbia University's Earth Institute** blends research in the physical and social sciences, education, and practical solutions to help guide the world onto a path toward sustainability. The people who make up the Earth Institute are earth scientists, economists, business and policy experts, specialists in public health and law, researchers, teachers and students.

**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.

## THE CURRICULUM

Students must successfully complete 36 points or twelve courses. They have the flexibility to choose from some sixty courses designed especially for them, as well as from many other courses throughout Columbia. Courses are categorized into five areas of study:

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### 1. Integrative Courses in Sustainability Management (9 points)

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These courses draw on general and financial management, policy, science, and quantitative analysis to teach students how to solve the types of problems that they will encounter as sustainability practitioners.

- Sustainability Management (Required)
- Integrative Capstone Workshop (Required)
- Practicum in Innovative Sustainability Leadership
- Ethics and Values for Sustainability Management
- Writing about Global Science for the International Media
- Earth Institute Practicum

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### 2. Economics and Quantitative Analysis (9 points)

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The economics requirement reflects the need to understand the financial costs and benefits of sustainability practices. The quantitative analysis requirement gives students the necessary tools to utilize data in analyzing issues and identifying solutions to problems.

- Economics of Sustainability Management
- Energy and Sustainable Development
- Cost-Benefit Analysis
- Geographic Information Systems (GIS) for Sustainability Management
- Sustainability Metrics
- Statistics for Sustainability Management
- Decisions Models & Management
- Accounting, Finance, and Modeling of Sustainable Investments

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### 3. The Physical Dimensions of Sustainability Management (9 points)

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The physical dimensions area of study teaches students about the connections between environmental inputs (i.e., natural resources) and outputs (i.e., energy), and the effects of those processes 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
- Analysis for Energy Efficiency
- Sustainability Science
- Hungry City Workshop
- The Science of Urban Ecology
- Sustainable Cities
- Water Resources and Climate
- Critical Urban Infrastructure for Sustainable Development

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### 4. The Public Policy Environment of Sustainability Management (3 points)

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Public policy shapes the management of sustainability in both public and private organizations. Sustainability practitioners must be able to understand and analyze policy, and its effects on what they are able to do. Students must also be prepared to react to future policy developments.

- Policy and Legal Context of Sustainability Management
- International Environmental Law
- Water Governance
- Women in Cities
- Environmental Infrastructure for Sustainable Cities

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### 5. General and Financial Management (6 points)

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The general and financial management area of study teaches the skills that are essential to shaping the behavior of an organization, and thus to carrying out effective sustainability initiatives. Students learn to use the tools 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
- Sustainable Operations
- Financing the Clean Energy Economy
- Solar Project Development
- Energy Markets and Innovation
- Corporate Sustainability Reporting and Strategy
- Sustainable Fashion & Startup Strategy

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### Integrative Capstone Workshop in Sustainability Management

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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:

[www.sustainability.ei.columbia.edu/curriculum](http://www.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 Columbia's Earth Institute and the School of Professional Studies. The Earth Institute offers a broad sustainability-specific professional development program, which comprises internships, sustainability skill-building, access to leading practitioners, and specialized job search strategies and tools. The School operates a Career Management program, which offers job search tools and resources.

*“A decade from now, all excellent managers will be sustainability managers. Just as the definition of excellent management today includes effective financial, human, and information management, soon it will also include effective sustainability management.”*

— Steven Cohen, Director, M.S. in Sustainability Management



## OUR FACULTY

Our faculty comprises accomplished and innovative sustainability practitioners, as well as world-class academics and researchers. The faculty draw from their practical experience and their research to teach students both the fundamental principles of sustainability management, as well as the latest innovations in the field.

## OUR STUDENTS

Sustainability Management students represent a cross-section of the industries and organizations currently incorporating sustainable initiatives into their day-to-day operations, as well as those who are looking to change careers. The program's students are passionate not only to learning the management and scientific principles of sustainability, but also to put their education into practice. About 70% of our students enroll in the program on a part-time basis and complete the program in up to 9 semesters, and 30% of our students enroll in the program on a full-time basis and complete the program in three semesters.

## FELLOWSHIP FUNDING

The Earth Institute and the MS in Sustainability Management program offer up to \$72,000 in fellowship funding annually. The Admissions and Fellowship Committee award fellowships based on applicants' demonstrated financial need and academic and professional merit. More information is available on the website.

## OUR ALUMNI

Graduates transform how organizations do business by formulating and implementing sustainability strategies. The program has graduated some nearly 800 students, creating a formidable network of sustainability professionals. Our 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:

**SUSTAINABILITY MANAGER | AMAZON**

**HEAD OF SUSTAINABLE BUSINESS OPERATIONS | BLOOMBERG LP**

**HEAD OF SUSTAINABILITY | JETBLUE AIRLINES**

**MANAGER, CORPORATE SUSTAINABILITY STRATEGY | COACH**

**SUSTAINABILITY MANAGER | NATURAL RESOURCES DEFENSE COUNCIL**

**SENIOR PROGRAM MANAGER | NYC MAYOR'S OFFICE OF RECOVERY AND RESILIENCY**

**MANAGER, BRAND RESPONSIBILITY, METRICS & REPORTING | PATAGONIA**

### Professional experience

**27%**

OF STUDENTS ENTER WITH 7 TO 10 YEARS OF PROFESSIONAL EXPERIENCE

**24%**

OF STUDENTS ENTER WITH 3 YEARS OR LESS OF PROFESSIONAL EXPERIENCE

**22%**

OF STUDENTS ENTER WITH 4 TO 6 YEARS OF PROFESSIONAL EXPERIENCE

**19%**

OF STUDENTS ENTER WITH 11 TO 20 YEARS OF PROFESSIONAL EXPERIENCE

**8%**

OF STUDENTS ENTER WITH 21 YEARS OR MORE YEARS OF PROFESSIONAL EXPERIENCE

### Where our graduates are employed

**66%** PRIVATE

**13%** PUBLIC

**10%** NON-PROFIT

**11%** SELF-EMPLOYED/ OTHER

## 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.

### 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, and low-carbon transportation. The program welcomes professionals who are changing career paths. Admission is selective. College-level science, math, and economics are preferred. Practitioner experience is greatly valued, and accomplishments in the fields of sustainability management are considered.

### Application Deadlines

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

- Fall Admission: **Final deadline is May 15**
- Spring Admission: **Final deadline is November 1**

### How to Apply

For complete information about how to apply to the program, please visit

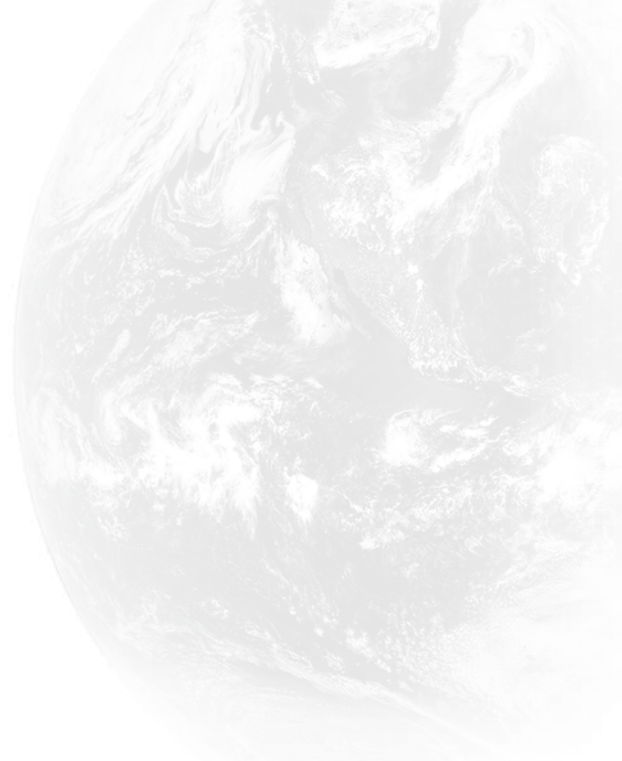
[www.sustainability.ei.columbia.edu](http://www.sustainability.ei.columbia.edu)

### Application Materials Checklist

Only complete applications are reviewed.

- Completed application form
- \$95 application fee
- Transcripts from all postsecondary schools attended
- Professional résumé
- Statement of academic purpose addressing: your purpose and interest in pursuing a degree in sustainability management; how the degree program fits into your overall professional growth, focusing in particular on the connection between the program and your academic and/or professional experience
- Two letters of recommendation written by teachers or professional colleagues who are well positioned to comment on your intellectual strengths and professional promise. Applicants who have received their bachelor's degree within the last five years must submit at least one recommendation from a teacher who can comment on your academic aptitude.

# FAST FACTS



Columbia's Lamont-Doherty Earth Observatory is

## **RANKED FIRST**

worldwide in the Earth Sciences, and is the scientific home to the largest concentration of academic earth and climate scientists in the United States. It was the first to develop a computer model to predict an El Niño weather event, and the first to reveal the ocean's role in triggering abrupt climate change.

Columbia offers more than 200 environmental and sustainability courses each year,

## **MORE THAN ANY OTHER UNIVERSITY.**

Columbia's Earth Institute is

## **THE LARGEST**

university-wide research organization dedicated to the research, practice, and education of sustainability in the world.

Organizations that employ Sustainability Management alumni include:

**AMAZON | BASF | BLOOMBERG LP | CITI  
CITY OF PORTLAND | CON EDISON | ETSY  
GENERAL MILLS | GOOGLE | H&M  
JETBLUE | THE NATURE CONSERVANCY  
NATURAL RESOURCES DEFENSE COUNCIL  
PATAGONIA | PEPSICO | SAMSUNG ELECTRONICS  
UNILEVER | WHOLE FOODS MARKET.**

## **~100%**

of Sustainability Management program graduates reporting have secured employment positions with a sustainability function.

The National Research Council ranks the graduate programs in Earth Science at Columbia

## **NUMBER ONE**

in the United States.

Sustainability MS instructors include practitioners with experience at leading companies and public organizations, including:

**THE WORLD BANK | THE CITY OF NEW YORK  
THE PORT AUTHORITY OF NY & NJ | HEINEKEN USA  
THE WILDLIFE CONSERVATION SOCIETY  
THE NEW YORK TIMES | ACCENTURE  
BLOOMBERG ASSOCIATES | GOLDMAN SACHS  
WHITE & CASE LLP | COLGATE-PALMOLIVE  
THE UNITED NATIONS DEVELOPMENT PROGRAMME.**

Lamont-Doherty administers

## **THE VETLESEN PRIZE,**

“the Nobel Prize in Earth Sciences.”

## **COLUMBIA'S GLOBAL ALUMNI NETWORK**

includes over 2,000 graduates associated with the Earth Institute's education programs.

*“The program energized me and made me feel like part of an active movement that is growing to tackle the most pressing climate-related challenges. I learned how to use scientific tools as well as the power of people to work towards shared sustainability goals.”* — Avantika Goswami, alumna

## PROGRAM CONTACT

### **Steven Cohen**

Professor in the Practice of Public Affairs  
Director, M.S. in Sustainability Management

### **Samantha Ostrowski**

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M.S. in Sustainability Management and M.S. in Sustainability Science  
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### **Admissions Advising**

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