School of Public Policy

Sustainable Energy & Environmental Management
Masters (MSEEM) & Certificate (CSEEM) Programs

For more information: https://cepl.gatech.edu/

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Economic Development

Social Progress

Policy

Pathways

Sustainable

Future

World
• Livable
• Fair
• Viable

Environmental Responsibility

Future Sustainable

Policy Pathways

Sustainable Future
MSEEM & CSEEM Programs
School of Public Policy

Highly ranked by
U.S. News & World Report

Information Technology Management
Energy & Environmental Policy
Policy Analysis

Includes virtually every policy area
environmental, communications, transportation, biotechnology and health, urban development, workforce, education, and more.

- Multidisciplinary and globally networked
- Policy relevant in S&T, E&E, ITC and Ethics
- Programs informed by world-recognized thought leaders in policy, governance, STEM education, and real-world issues
- Data-driven forecasting innovation and entrepreneurial pathways

Benefits

- Choose from state-of-the-art programs across the university gives you competitive training for today’s global marketplace
- Opportunity to plan a unique learning profile to optimize your career goals
- Access course content to suit your distinct needs

“Learn to use public policy skills to impact social good – change the world”
MSEEM Professors & Faculty

Award Winning
• Respected Practitioners
• International Awards
• Published
• Global Knowledge

“Experts in climate change – dedicated to reducing carbon emissions, leading research, influencing policy.”

Benefits
• Learn
• Share Research
• Explore
• Collaborative
• Mentoring
MSEEM Faculty – World Renowned

Data Analytics & Machine Learning

Utilities, Regulation, Renewables, & Demand-Side Solutions

Environmental Economics & Climate Policy

Carbon Credits, Green Energy Financing, Eco-Certification

Climate Change & Economics
MSEEM Faculty – World Renowned

- Sustainable Theory & Practices
- Transportation & Energy
  - Environmental Science
  - Air Quality
- Environmental Planner
- Mediator
- Environmental & Energy Modeling
- Environmental Policy & Corporate Social Responsibility

Michael Elliott
- Environmental Planner
- Mediator

Valerie Thomas
- Environmental Modeling
- Energy Modeling

Michael Rodgers
- Transportation & Energy
- Air Quality
- Environmental Science

Dan Matisoff
- MSEE Co-Director
- Environmental Policy
- Energy Policy Analysis

Bryan Norton
- Sustainable Theory
- Sustainable Practices
2020 Profile: Inaugural Class of MSEEM is the only sustainability-oriented Masters Program in Georgia
Applications from Coast to Coast and Around the Globe

37% Georgia
37% United States
26% International

Year One – 2020
24 motivated & accomplished scholars selected for year one:
- Different schools
- Range of work experience & education
- 5 MSEEM Funded Fellows

Academic Backgrounds
- Management
- Design
- Engineering
- Liberal Arts
- Science
Meet The Inaugural Class of 2020

14 MSEEM Graduate Students
  ▪ 11 Full-time
  ▪ 3 Part-time
4 CSEEM Students

Highly diverse and qualified
  ▪ 67% with GPA > 3.0
  ▪ Degrees
    ✤ 11% Science
    ✤ 44% Liberal Arts
    ✤ 30% Engineering
    ✤ 15% Management
High Demand for Accredited Sustainability Skills

Job Forecast by the numbers

Between 2012 – 2022, increasing by 15%

Source: Bureau of Labor Statistics

These job categories include:
• Clean Energy Sector
• Conservation & Nonprofits
• Corporate Social Responsibility
• Regulatory & Governmental
• Environmental Engineering
• Consulting

Benefit: “The MSEEM/CSEEM degree opens doors to the increased demand for sustainability professionals.”
## PUBP Class Listings – Fall 2020

<table>
<thead>
<tr>
<th>Required courses</th>
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<tbody>
<tr>
<td>PUBP 8803</td>
<td>Sustainable Energy and Environmental Management Policy and Management – Dr. Matisoff</td>
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<table>
<thead>
<tr>
<th>Quantitative Methods elective (need 2 in total)</th>
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<tbody>
<tr>
<td>PUBP 6114</td>
<td>Applied Policy Methods and Data Analysis – Dr. Rogers</td>
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<tr>
<td>PUBP 8200</td>
<td>Advanced Research Methods I – Dr. Rogers</td>
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<tr>
<td>PUBP 6120</td>
<td>Policy Cost Ben Analysis – Dr. Massetti</td>
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<thead>
<tr>
<th>Sustainable Energy &amp; Environmental Management (need 3 in total)</th>
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<tbody>
<tr>
<td>PUBP 6300</td>
<td>Earth Systems – Dr. Rodgers</td>
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<tr>
<td>PUBP 6330</td>
<td>Environmental Law – Dr. Slieper</td>
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<tr>
<td>PUBP 6352</td>
<td>Utility Regulation &amp; Policy – Dr. Brown</td>
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<tr>
<th>Policy &amp; Management (need 1 in total)</th>
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<tbody>
<tr>
<td>PUBP 6116</td>
<td>Microeconomic Analysis in Public Policymaking – Dr. Marco</td>
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<tr>
<td>PUBP 6201</td>
<td>Public Policy Analysis – Dr. Bullinger</td>
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<tr>
<td>PUBP 6314</td>
<td>Policy Tools for Environmental Management – Dr. Elliott</td>
</tr>
</tbody>
</table>
Stackable and Flexible Programs
MSEEM on campus or via distance learning*
CSEEM can feed into MSEEM

CSEEM 12 credit hours

2 Required Courses
Sustainable Energy & Environmental Management + Economics of Environmental Policy

1 Quantitative Methods Course

1 SEEM Elective OR 1 Policy & Management Elective

MSEEM 30 credit hours

2 Required Courses

2 Quantitative Methods Courses

3 SEEM Electives + 1 Policy & Management Elective

Professional paper to be completed in two 3-credit-hour courses

* Should numbers permit
Complete List of Courses

Required Courses:
- PUBP 8803: Sustainable Energy & Environmental Management
- PUBP 6312: Economics of Environmental Policy
- PUBP 6801: Professional Paper

Methods Electives:
- PUBP 6114: Applied Policy Methods
- PUBP 6120: Cost Benefit Analysis
- PUBP 6218: Quantitative Models in Public Policy
- PUBP 6530/CP 6514: Intro to GIS
- PUBP 8200: Advanced Research Methods 1
- PUBP 8205: Advanced Research Methods 2
- PUBP 8751: Big Data and Public Policy
- CETL 6490: Advanced Environmental Data Analysis
- CP 6541: Environmental Analysis Using GIS
- ISYE 8803: Life Cycle Assessment
- MGT 6203: Data Analytics in Business
- MSE 6759: Materials in Environmentally Conscious Design and Manufacturing

Policy & Management Electives:
- PUBP 6010: Ethics and the Policy Profession
- PUBP 6012: Fundamentals of Policy Process
- PUBP 6017: Public Management
- PUBP 6018: Policy Implementation and Administration
- PUBP 6116: Microeconomic Analysis in Public Policymaking
- PUBP 6118: Public Finance and Policy
- PUBP 6201: Public Policy Analysis
- PUBP 6221: Policy and Program Evaluation
- PUBP 6314: Policy Tools for Environmental Management
- PUBP 6350: Energy Policy and Markets
- PUBP 6354: Climate Policy
- PUBP 6401: Science, Technology, and Public Policy
- PUBP 8540: Advanced Environmental Policy
- PUBP 8803: Environmental Policy and Politics
- CP 6016: Growth Management Law and Implementation
- CP 6223: Policy Tools for Environmental Management
- MGT 8803: Understanding Markets with Data Science

SEEM OR P&M Electives:
- PUBP 6326: Environmental Values and Policy Goals
- PUBP 6327: Sustainability and Environmental Policy
- PUBP 6330/CP 6261: Environmental Law
- PUBP 6350: Energy Policy and Markets
- PUBP 6701: Energy Technology Policy

Sustainable Energy & Environmental Management Electives:
- PUBP 6300: Earth Systems
- PUBP 6310: Environmental Issues
- PUBP 6350: Energy Policy and Markets
- PUBP 6352: Utility Regulation and Policy
- PUBP 6380: Economics of Natural Resources and the Environment
- PUBP 8803: Environmental Finance OR Sustainability and Environmental Policy OR Smart Cities
- AE 4803/8803: Energy Efficiency and Environmental Impacts
- ARCH 6531: Environmental Systems I
- BC 6002: Issues in Sustainable Construction Technology
- BC 6731: Zero Energy Housing
- CEE 4300: Environmental Engineering Systems
- CEE 4395: Environmental Systems Design Project
- CEE 4620: Environmental Impact Assessment
- CEE 6314: Fundamentals of Environmental Modeling and Mathematics
- CEE 6345: Sustainable Engineering
- CEE 6390: Air Pollutant Formation and Control
- CEE 6625: Transportation, Energy, and Air Quality
- CEE 6790: Air Pollution Physics and Chemistry
- CHEM 8833: Funds./Challenges for a Sustainable Chemical Enterprise
- CHBE 4803/8803: Chemical Engineering of Energy Systems
- CHEM 6790: Air Pollution Physics and Chemistry
- CP 6016: Growth Management Law and Implementation
- CP 6223: Policy Tools for Environmental Management
- MGT 8803: Understanding Markets with Data Science
- MGT 6359: Business Strategies for Sustainability
- MSE 6759: Materials in Environmentally Conscious Design and Manufacturing
- PHIL 6710: Ethics of Biotechnology and Bioengineering Research
## Popular Courses

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Name</th>
<th>Type</th>
<th>ERG</th>
<th>ENV</th>
<th>POL</th>
<th>ECON</th>
<th>CIT</th>
<th>TRN</th>
<th>BUS</th>
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<tr>
<td>PUBP 6114</td>
<td>Applied Policy Methods</td>
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<td>PUBP 6120/8803</td>
<td>Cost Benefit Analysis for Policy</td>
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<td>PUBP 6223/CP 6233</td>
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<td>PUBP 6312</td>
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<td>PUBP 6327</td>
<td>Sustainability and Environmental Policy</td>
<td>SEEM, P&amp;M</td>
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<td>Utility Regulation and Policy</td>
<td>SEEM</td>
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<td>Transportation, Energy, and Air Quality</td>
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<td>PUBP 6701/ISYE 6701</td>
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<td>PUBP 8751</td>
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<td>PUBP 8803</td>
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<td>CP 6016</td>
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<tr>
<td>INTA 8803</td>
<td>Energy and International Security</td>
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<td>MGT 6389</td>
<td>Sustainable Business Practicum</td>
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View the complete course list at [https://cepl.gatech.edu/degrees/courses](https://cepl.gatech.edu/degrees/courses).
Part 1: Sustainability Theory and Philosophy
- Conservationism;
- Preservationism;
- Sustainable Development;
- Malthus vs. Prometheus

Part 2: Tools for Managing Sustainability
- Regulations;
- Markets;
- Participatory Processes;
- Corporate Social Responsibility

Part 3: Case Analysis
Guest Lectures: Industry Perspectives

- Guest Lectures from the Atlanta metropolitan area strengthen linkages to professional practice.
- Guest Lectures are drawn from multiple sectors of the Atlanta business, government, and not-for-profit community.
Capstone Project

• The MSEEM summer term focuses on the Research Capstone Project 6 credits
• Students have flexibility to identify and define a real-world problem in the area of energy, sustainability and/or environment and select a methodology to assess valuable solutions.
• Students can develop the project individually or as a team.
Illustrative Capstone Case Examples

• GT as a learning laboratory
  • Environmental and economic impacts of car rental services at GT

• Community-based projects
  • Case Study: How sustainable is urban agroforestry?
  • Integrating community needs into regional resilience planning
  • The role of local government to implement sustainability actions

• Business-related projects
  • Value of incorporating Sustainable Development Goals (SDGs) in business
  • Airline Sustainable Supply Chain
Jobs: Graduates Making A Difference

Non-Governmental Organizations
- Union of Concerned Scientists
- Natural Resources Defense Council
- American Council for an Energy-Efficient Economy

Natural Resources Defense Council
- Federal Energy Regulatory Commission
- U.S. Environmental Protection Agency
- National Labs: ANL, LLNL, NREL, & ORNL
- Michigan Energy Office
- Georgia Public Service Commission
- U.S. Department of Energy
- Atlanta Office of Resilience

SE Energy Efficiency Alliance
- Oglethorpe Power
- The Greenlink Group
- Demand-Side Analytics
- Amazon
- Deloitte
- Coca-Cola

Government
- U.S. Department of Energy
- U.S. Environmental Protection Agency

Business
- ICF
- EcoAct
- mc²i Group
- Quest Renewables
- Amazon
- Deloitte
- Coca-Cola
Thanks to a generous gift, MSEEM offers full graduate fellowships for 5 on-campus full-time students per year for the first 3 years.
Frequently Asked Questions

1. What are the backgrounds of C/MSEEM students?
2. What kind of opportunities are available for graduates of the C/MSEEM?
3. How many students are likely to be in each class?
4. How long does it take to complete the MSEEM?
5. Can we take the C/MSEEM part-time while working?
6. What courses do I need to take to complete the degree program?
7. Can we use the CSEEM credits for the MSEEM?
8. What kind of financial aid is available?
9. Can C/MSEEM students get credit for an elective course that is not currently on our approved list?