

Industrial Ecology Graduate Certificate Program Course Requirements

The Industrial Ecology Certificate program consists of 15 credit hours.

Students should take one course from each of the five core areas (five classes total):

PROGRAM IN INDUSTRIAL ECOLOGY CORE COURSE (REQUIRED)

- EAS 557/CEE 586: Industrial Ecology (3 credits)

SYSTEM ANALYSIS AND SUSTAINABILITY (CHOOSE ONE)

- EAS 501.087: Technology and Community Sustainable Development (3 credits)
- EAS 572/EHS 572: Environmental Impact Assessment (2 credits)
- EAS 523: Ecological Risk Assessment (3 credits)
- AOSS 467/CLIMATE 567: Chemical Dynamics (3 credits)
- EAS 550/STRAT566: Systems Thinking for Sustainable Development and Enterprise
- MECHENG 589: Sustainable Design of Technology Systems
- EAS 597: Environmental Systems Analysis
- EAS 573: Environmental Footprinting and Input-Output Analysis
- EHS 672: Life Cycle Assessment: Human Health and Environmental Impacts

ENERGY SYSTEMS (CHOOSE ONE)

- EAS 615: Renewable Electricity and the Grid
- EAS 574/PUBPOL 519: Sustainable Energy Systems
- EAS 567: Transportation Energy and Climate
- CEE 567: Energy Infrastructure Systems

ENVIRONMENTAL POLICY AND ECONOMIC ANALYSIS (CHOOSE ONE)

- EAS 475: Environmental Law
- EAS 512/STRAT 564 Strategies for Sustainable Development I*
- EAS 513/Strategy 565 Strategies for Sustainable Development II*
- URP 532: Sustainability and Social Change
- EAS 686/PUBPOL 563: The Politics of Environmental Regulation
- EAS 527/BE 527: Energy Markets and Energy Politics
- EHS 508: Principles of Risk Assessment
- EAS 570: Environmental Economics: Quantitative Methods and Tools
- EAS 668/ECON 661: Advanced Natural Resource Economics
- EAS 669/ECON 662: Environmental Energy and Resource Economics
- ECON 437: Energy Economics and Policy

*Students must take both EAS 512 & 513 in order to fulfill the Environmental Policy and Economics Analysis requirement

EXPERIENTIAL LEARNING REQUIREMENT (CHOOSE ONE ACTIVITY TO BE APPROVED BY ONE OF THE CO-DIRECTORS)**

- Participate in Sustainability without Borders projects
- Sustainability internship
- Other to be defined with program directors

***One additional course from the above list can be taken to fulfill experiential learning requirement, if approved by one of the co-directors.*