EMMETT INTERDISCIPLINARY PROGRAM IN ENVIRONMENT AND RESOURCES (E-IPER)

Courses offered by the Emmett Interdisciplinary Program in Environment and Resources are listed under the subject code ENVRES on the Stanford Bulletin's ExploreCourses web site (http://explorecourses.stanford.edu/search;jsessionid=75B13D9BD401BF44435773B11DC678716?view=catalog&catalog=&page=0&q=ENVRES&filter-catalognumber-ENVRES=on&filter-coursecstatus-Active=on).

Mission of the Program

The Emmett Interdisciplinary Program in Environment and Resources develops the knowledge, skills, perspectives, and ways of thinking needed to understand and help solve the world’s most significant environmental and resources sustainability challenges. E-IPER strives to be a model for interdisciplinary graduate education. E-IPER offers a Ph.D. in Environment and Resources, a Joint M.S. exclusively for students in Stanford's Graduate School of Business or Stanford Law School, and a Dual M.S. for students in the School of Medicine or a Ph.D. program in another department. E-IPER's home is the School of Earth, Energy & Environmental Sciences; affiliated faculty come from all seven Stanford schools.

Graduate Programs in Environment and Resources

The University’s basic requirements for the M.S. and Ph.D. degrees are discussed in the "Graduate Degrees (http://exploredegrees.stanford.edu/graduatedegrees)" section of this bulletin. The E-IPER Ph.D. and M.S. degrees are guided by comprehensive requirements created with faculty and student input and approved by E-IPER's Executive Committee. To access the current Ph.D. and M.S. degree requirement documents, see the E-IPER web site (https://earth.stanford.edu/eiper).

Learning Outcomes (Graduate)

Completion of the Ph.D. and M.S. degrees in Environment and Resources provides students with the knowledge, skills, perspectives, and ways of thinking needed to understand and help solve the world's most significant environmental and resources sustainability challenges.

Master of Science in Environment and Resources

For information on the University's basic requirements for the master's degree, see the "Graduate Degrees (http://exploredegrees.stanford.edu/graduatedegrees)" section of this bulletin.

Joint Master's Degree

Students enrolled in a professional degree program in Stanford's Graduate School of Business or the Stanford Law School are eligible to apply for admission to the Joint M.S. in Environment and Resources Degree program. Enrollment in the joint M.S. program allows students to pursue an M.S. degree concurrently with their professional degree and to count a defined number of units toward both degrees, resulting in the award of Joint M.B.A. and M.S. in Environment and Resources degree or a Joint J.D. and M.S. in Environment and Resources degree.

The joint M.S.-M.B.A degree program requires a total of 129 units: 84 units for the M.B.A. and 45 units for the M.S. (compared to 100 units for the M.B.A. plus 45 units for the M.S. as separate degrees) to be completed over approximately eight academic quarters.

The joint M.S.-J.D. degree program requires a minimum of 113 units; additional units may be necessary to satisfy all requirements. The J.D. degree requires 111 units (minimum of 80 Law units and 31 non-Law units) and the M.S. degree requires 45 units. The joint degree allows up to 43 overlapping units: 31 non-Law units allowed within the J.D. degree plus 12 professional school units allowed within the M.S. degree. The joint M.S.-J.D. may be completed in three years.

Each student's program of study focuses on a specific track (see "Joint M.S. and Dual M.S. Course Tracks" below) and is subject to the approval by the student’s faculty adviser and E-IPER staff. The joint degree is conferred when the requirements for both the E-IPER M.S. and the professional degree program have been met.

In addition to requirements for the professional degree, all joint M.S. students are required to complete 45 units within the parameters outlined below and must achieve at least a 'B' average (3.0 grade point average) for all letter-graded courses taken toward the M.S. degree. Professional school letter-graded courses are not included in the E-IPER GPA calculation. The student must complete at least 23 units at the 200 level or above. Courses numbered 1 to 99 are not allowable. For application information, see the Admissions (https://earth.stanford.edu/eiper/joint-ms-admissions) page on the E-IPER website (https://earth.stanford.edu/eiper).

1. Required Courses: An introductory core course and a capstone project seminar.

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<tr>
<td>ENVRES 290</td>
<td>Capstone Project Seminar in Environment and Resources</td>
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2. Track Courses: A minimum of four letter-graded courses from one M.S. course track at the 100-level or higher. Track courses must be taken for a minimum of 3 units. Specific track courses are listed below in the "Joint M.S. and Dual M.S. Course Tracks" section.

a. CleanTech
b. Climate and Atmosphere
c. Energy
d. Freshwater
e. Global, Community, and Environmental Health
f. Land Use and Agriculture
g. Oceans and Estuaries
h. Sustainable Built Environment
i. Sustainable Design [In revision, submit custom track proposal]

3. Elective Courses: At least four 3-5 unit letter-graded elective courses at the 100-level or higher. Elective courses may be taken from the student’s selected course track, another course track, or elsewhere in the University, provided that they are relevant to the student's environment and resources course of study.

There are additional restrictions on course work used to fulfill the joint M.S. degree requirements:

- A maximum of 5 units from courses that are identified as primarily consisting of guest lectures, such as the Energy Seminar, may be counted toward the Joint M.S. degree.
- A maximum of 5 units of individual study courses, independent research units (such as ENVRES 399 Directed Research in Environment and Resources) may be counted toward the joint M.S. degree. One individual study course, if taken for 3-5 letter-graded units, may be counted as one of the four elective courses.
• A maximum of 12 units of approved courses (https://explorecourses.stanford.edu/search?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&q=EIPER%3A%3Ams_profschool&collapse=) related to environmental and resource fields, from any professional school, may be counted toward the joint M.S. degree. One approved professional school course may be counted as one of the four electives.

Dual Master’s Degree

Students in the School of Medicine or other Stanford professional graduate degree programs, or students pursuing a Ph.D. in another Stanford department may apply to the M.S. in Environment and Resources dual degree program. For the dual degree, students must meet the University’s minimum requirements for their M.D. or Ph.D. degree and also complete an additional 45 units for the M.S. in Environment and Resources. Completion of the M.S. typically requires at least three quarters of study in addition to the time required for the student’s other degree. For additional information, see the E-IPER website (https://pangea.stanford.edu/eiper).

Each student’s program of study focuses on a specific track (see “Joint M.S. and Dual M.S. Course Tracks” below) and is subject to the approval of the student’s faculty adviser and E-IPER staff. The two degrees are comprised of the student’s environment and resources course of study.

A maximum of 12 units of approved courses (https://explorecourses.stanford.edu/search?view=catalog&filter-coursestatus-Active=on&page=0&catalog=&academicYear=&q=EIPER%3A%3Ams_profschool&collapse=) related to the environmental and resource fields, from any professional school, may be counted toward the dual M.S. degree. One individual study course, if taken for 3-5 letter-graded units, may be counted as one of the four elective courses.

Joint M.S. and Dual M.S. Course Tracks

Students should consult the Stanford Bulletin’s ExploreCourses (http://explorecourses.stanford.edu) web site to view the course description, class schedule, location, eligibility, and prerequisites for all courses. Course track information and other recommended courses are also available on the E-IPER website (https://pangea.stanford.edu/eiper).

Cleantech

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<td>BIOE 355</td>
<td>Advanced Biochemical Engineering</td>
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<td>CEE 176A</td>
<td>Energy Efficient Buildings</td>
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<td>CEE 176B</td>
<td>100% Clean, Renewable Energy and Storage for Everything</td>
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<td>CEE 207A</td>
<td>Understanding Energy</td>
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<td>CEE 207R</td>
<td>E³: Extreme Energy Efficiency</td>
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<td>Life Cycle Assessment for Complex Systems</td>
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<td>Modern Power Systems Engineering</td>
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<td>Environmental Microbiology</td>
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<td>ENERGY 253</td>
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<td>ENERGY 267</td>
<td>Engineering Valuation and Appraisal of Oil and Gas Wells, Facilities, and Properties</td>
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<td>Energy from Wind and Water Currents</td>
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<td>MATSCI 256</td>
<td>Solar Cells, Fuel Cells, and Batteries: Materials for the Energy Solution</td>
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<td>MATSCI 302</td>
<td>Solar Cells</td>
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<td>MATSCI 303</td>
<td>Principles, Materials and Devices of Batteries</td>
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<tr>
<td>MATSCI 316</td>
<td>Nanoscale Science, Engineering, and Technology</td>
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<td>ME 182</td>
<td>Electric Transportation</td>
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<td>Fuel Cell Science and Technology</td>
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<td>Ethics and Equity in Transportation Systems</td>
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## Climate and Atmosphere

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<td>Ecosystem Services: Frontiers in the Science of Valuing Nature</td>
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<td>CEE 172</td>
<td>Air Quality Management</td>
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<td>CEE 226</td>
<td>Life Cycle Assessment for Complex Systems</td>
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<td>CEE 263A</td>
<td>Air Pollution Modeling</td>
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<td>Numerical Weather Prediction</td>
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<td>CEE 263C</td>
<td>Weather and Storms</td>
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<td>CEE 263D</td>
<td>Air Pollution and Global Warming: History, Science, and Solutions</td>
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<td>Environmental Governance and Climate Resilience</td>
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<td>Air Pollution Fundamentals</td>
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<td>ESS 246A</td>
<td>Atmosphere, Ocean, and Climate Dynamics: The Atmospheric Circulation</td>
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## Energy

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<td>Fundamentals of Petroleum Engineering</td>
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<td>Energy Systems III: Projects</td>
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## Freshwater

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<td>Providing Safe Water for the Developing and Developed World</td>
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<td>Wastewater Treatment: From Disposal to Resource Recovery</td>
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<td>CEE 177</td>
<td>Aquatic Chemistry and Biology</td>
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<td>Life Cycle Assessment for Complex Systems</td>
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<td>CEE 250</td>
<td>Physical Hydrogeology</td>
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<td>Contaminant Hydrogeology and Reactive Transport</td>
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<td>Transport and Mixing in Surface Water Flows</td>
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<td>CEE 262B</td>
<td>Rivers, Streams, and Canals</td>
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<td>Sustainable Water Resources Development</td>
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<td>Water Resources Management</td>
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<td>CEE 265D</td>
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<td>Watersheds and Wetlands</td>
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<td>Floods and Droughts, Dams and Aqueducts</td>
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<td>Dams, Reservoirs, and their Sustainability</td>
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<td>Movement and Fate of Organic Contaminants in Waters</td>
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<td>Physical and Chemical Treatment Processes</td>
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<td>Environmental Biotechnology</td>
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## Global, Community, and Environmental Health

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<td>Contaminant Hydrogeology and Reactive Transport</td>
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<td>Air Pollution and Global Warming: History, Science, and Solutions</td>
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<td>CEE 276</td>
<td>Introduction to Human Exposure Analysis</td>
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<tr>
<td>CEE 277S</td>
<td>Engineering and Sustainable Development</td>
<td>1-3</td>
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<tr>
<td>CEE 278A</td>
<td>Air Pollution Fundamentals</td>
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<td>CEE 278C</td>
<td>Indoor Air Quality</td>
<td>2-3</td>
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<tr>
<td>ECON 155</td>
<td>Environmental Economics and Policy</td>
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<tr>
<td>HUMBIO 153</td>
<td>Parasites and Pestilence: Infectious Public Health Challenges</td>
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<td>HUMBIO 166</td>
<td>Food and Society: Exploring Eating Behaviors in Social, Environmental, and Policy Context</td>
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</table>

**Land Use and Agriculture**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ANTHRO 266</td>
<td>Political Ecology of Tropical Land Use: Conservation, Natural Resource Extraction, and Agribusiness</td>
<td>3-5</td>
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<tr>
<td>BIO 117</td>
<td>Biology and Global Change</td>
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<tr>
<td>BIO 234</td>
<td>Conservation Biology: A Latin American Perspective</td>
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<tr>
<td>BIO 238</td>
<td>Ecosystem Services: Frontiers in the Science of Valuing Nature</td>
<td>3</td>
</tr>
<tr>
<td>CEE 226</td>
<td>Life Cycle Assessment for Complex Systems</td>
<td>3-4</td>
</tr>
<tr>
<td>CEE 275A</td>
<td>California Coast: Science, Policy, and Law</td>
<td>3-4</td>
</tr>
<tr>
<td>EARTHSYS 155</td>
<td>Science of Soils</td>
<td>3-4</td>
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<tr>
<td>EARTHSYS 185</td>
<td>Feeding Nine Billion</td>
<td>4-5</td>
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<td>EARTHSYS 187</td>
<td>FEED the Change: Redesigning Food Systems</td>
<td>2-3</td>
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<tr>
<td>EARTHSYS 205</td>
<td>Food and Community: Food Security, Resilience and Equity</td>
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<td>EARTHSYS 206</td>
<td>World Food Economy</td>
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<tr>
<td>EARTHSYS 276</td>
<td>Open Space Management Practicum</td>
<td>4-5</td>
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<tr>
<td>EARTHSYS 289</td>
<td>FEED Lab: Food System Design &amp; Innovation</td>
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**Oceans and Estuaries**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO 238</td>
<td>Ecosystem Services: Frontiers in the Science of Valuing Nature</td>
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<tr>
<td>BIOHOPK 263H</td>
<td>Oceanic Biology</td>
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<tr>
<td>BIOHOPK 272H</td>
<td>Marine Ecology: From Organisms to Ecosystems</td>
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<tr>
<td>BIOHOPK 273H</td>
<td>Marine Conservation Biology</td>
<td>4</td>
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<tr>
<td>BIOHOPK 274H</td>
<td>Hopkins Microbiology Course</td>
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<tr>
<td>BIOHOPK 285H</td>
<td>Ecology and Conservation of Kelp Forest Communities</td>
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<tr>
<td>CEE 226</td>
<td>Life Cycle Assessment for Complex Systems</td>
<td>3-4</td>
</tr>
<tr>
<td>CEE 262D</td>
<td>Introduction to Physical Oceanography</td>
<td>4</td>
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<tr>
<td>CEE 272</td>
<td>Coastal Contaminants</td>
<td>3-4</td>
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<tr>
<td>CEE 274S</td>
<td>Hopkins Microbiology Course</td>
<td>3-12</td>
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<tr>
<td>CEE 275A</td>
<td>California Coast: Science, Policy, and Law</td>
<td>3-4</td>
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<tr>
<td>ECON 155</td>
<td>Environmental Economics and Policy</td>
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<td>ESS 241</td>
<td>Remote Sensing of the Oceans</td>
<td>3-4</td>
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<tr>
<td>ESS 244</td>
<td>Marine Ecosystem Modeling</td>
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<tr>
<td>ESS 246A</td>
<td>Atmosphere, Ocean, and Climate Dynamics: The Atmospheric Circulation</td>
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<tr>
<td>ESS 246B</td>
<td>Atmosphere, Ocean, and Climate Dynamics: the Ocean Circulation</td>
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<td>ESS 251</td>
<td>Biological Oceanography</td>
<td>3-4</td>
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<td>ESS 252</td>
<td>Marine Chemistry</td>
<td>3-4</td>
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<tr>
<td>ESS 258</td>
<td>Geomicrobiology</td>
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**Sustainable Built Environment**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CEE 100</td>
<td>Managing Sustainable Building Projects</td>
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</tr>
<tr>
<td>CEE 174A</td>
<td>Providing Safe Water for the Developing and Developed World</td>
<td>3</td>
</tr>
<tr>
<td>CEE 174B</td>
<td>Wastewater Treatment: From Disposal to Resource Recovery</td>
<td>3</td>
</tr>
<tr>
<td>CEE 176A</td>
<td>Energy Efficient Buildings</td>
<td>3</td>
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</tbody>
</table>
CxEE 176B 100% Clean, Renewable Energy and Storage for Everything 3-4
CEE 207R ECE: Extreme Energy Efficiency 3
CEE 218X Shaping the Future of the Bay Area 3-5
CEE 226 Life Cycle Assessment for Complex Systems 3-4
CEE 226E Advanced Topics in Integrated, Energy-Efficient Building Design 2-3
CEE 241A Infrastructure Project Development 3
CEE 243 Intro to Urban Sys Engrg 3
CEE 255 Introduction to Sensing Networks for CEE 3-4
CEE 256 Building Systems 3-4
CEE 265A Sustainable Water Resources Development 3
CEE 276B 100% Clean, Renewable Energy and Storage for Everything 3-4
CEE 277L Smart Cities & Communities 3
ECON 155 Environmental Economics and Policy 5
ME 267 Ethics and Equity in Transportation Systems 3
URBANST 163 Land Use Control 4
URBANST 165 Sustainable Urban and Regional Transportation Planning 4-5

Sustainable Design
Sustainable Design track in revision. Submit custom track proposal. See E-IPER website (https://pangea.stanford.edu/eiper) for detailed information about this track.

Master of Science
In exceptional circumstances, students in E-IPER’s Ph.D. program may opt to complete their training with a Master of Science degree. There is no direct admission to the M.S. degree program. Requirements for the M.S. include:

1. Completion of a minimum of 45 units at or above the 100-level, of which 23 units must be at or above the 200-level. Courses numbered 1 to 99 are not allowable.
2. Completion of the E-IPER M.S. core curriculum, with a letter grade of ‘B’ or higher in each course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>ENVRES 300</td>
<td>Introduction to Resource, Energy and Environmental Economics</td>
<td>3</td>
</tr>
<tr>
<td>ENVRES 315</td>
<td>Environmental Research Design Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ENVRES 320</td>
<td>Designing Environmental Research</td>
<td>3-4</td>
</tr>
<tr>
<td>ENVRES 330</td>
<td>Research Approaches for Environmental Problem Solving and Directed Reading in Environmental and Resources</td>
<td>4-13</td>
</tr>
</tbody>
</table>

Additional courses may be chosen in consultation with the student’s lead advisers. Students must maintain at least a ‘B’ (3.0) grade point average in all courses taken for the M.S. degree. The M.S. degree does not have an M.S. with thesis option. Students may write a M.S. thesis, but it is not formally recognized by the University.

Doctor of Philosophy in Environment and Resources
For information on the University’s basic requirements for the Ph.D. degree, see the "Graduate Degrees (http://exploredegrees.stanford.edu/graduatedegrees)" section of this bulletin.

E-IPER updates the Ph.D. requirements annually, laying out the structure of advising meetings, core courses, program activities, and milestones that guide students’ progress. Each student works with a faculty advising team from different research areas to design a course of study that allows the student to develop and exhibit:

1. understanding of analytical tools and research approaches for interdisciplinary problem solving, and a mastery of those tools and approaches central to the student’s thesis work
2. depth of knowledge in at least two distinct fields of inquiry; and
3. interdisciplinary breadth as determined by faculty, advising team, and student.

Program-specific Ph.D. requirements, including a timeline to achieve milestones, are outlined in detail in the current year requirements and are summarized below:

1. In the first year, completion of the Ph.D. core course sequence:

<table>
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<td>ENVRES 320</td>
<td>Designing Environmental Research</td>
<td>3-4</td>
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<td>ENVRES 330</td>
<td>Research Approaches for Environmental Problem Solving and Directed Reading in Environmental and Resources</td>
<td>3</td>
</tr>
</tbody>
</table>

2. Fields of Inquiry: Fulfillment of depth of knowledge in the student’s two chosen fields of inquiry through courses, research, and/or independent studies as determined by the student and their two lead advisers and committee members. Fields of inquiry are central to the student’s dissertation research. Students have the freedom to define and choose the two fields of inquiry in which they develop depth of understanding throughout their Ph.D. program; the fields must be distinct from one another to ensure that the student’s research is interdisciplinary. Each field of inquiry is associated with a specific lead adviser.

As part of the qualifying exam, each student is required to submit a detailed essay describing:

- the two fields of inquiry, explaining the development of these fields, and their relationship to the larger disciplines from which they are drawn;
- how rigor is understood and achieved in these fields;
- the importance and applicability of these fields to the student’s research questions; and
- how the student’s work will combine these two fields of inquiry to produce an interdisciplinary research project that demonstrates scholarly rigor.

1. Demonstration of an interdisciplinary breadth of knowledge that is more broadly related to environment and resources; this may be in the form of courses, independent study, and/or evidence of proficiency through prior course work or other experience. Fulfillment of the interdisciplinary breadth requirement must be certified by the student’s lead faculty advisers and committee members.
2. Completion of quarterly meetings with advisers during the first year, and at minimum, two annual meetings thereafter.
3. Submission of a candidacy plan for review at the second-year committee meeting and subject to the approval of that plan by the student’s committee and E-IPER’s faculty director. The candidacy plan documents how the student has fulfilled the program
Faculty advisers guide students in designing and conducting research, selecting courses, exploring academic opportunities and professional pathways, developing teaching skills, and navigating policies and degree requirements. At the same time, they are aware and respectful of work-life balance and wellness considerations. Graduate students are proactive in seeking academic and professional guidance, and take responsibility for learning about their program's policies and degree requirements.

Incoming students are assigned faculty adviser(s) in advance of their matriculation to the program, after further development of their research and professional interests, students may select different advisers.

As a best practice, adviser and advisee should agree upon advising expectations and then, periodically, discuss and review them in order to ensure mutual understanding.

Students should also take advantage of the larger advising network, consulting such resources as the E-IPER program staff, Stanford's institutional resources (VPGE, Office of Graduate Life, CAPS, etc.), and individuals and networks in the broader community of scholars. While student academic progress is reviewed annually, students are expected to be active in tracking their own progress, and raising concerns in a timely manner.

The E-IPER website provides more detailed information about E-IPER advising procedures and expectations in the Joint- and Dual-M.S. programs (https://pangea.stanford.edu/eiper/curriculum) and in the Ph.D. program (https://pangea.stanford.edu/eiper/phd-requirements).

In the event that a student has a formal concern or complaint about their advising experience, they are encouraged to contact the E-IPER Associate Director, the E-IPER Faculty Director, the School Associate Dean for Educational Affairs, or the School Associate Dean for Human Resources and Faculty Affairs.

For a statement of University policy on graduate advising, see the "Graduate Advising (http://exploredegrees.stanford.edu/graduatedegrees/#advisingandcredentialstext)" section of this bulletin.

Faculty Director: Nicole Ardoin

Director of Graduate Studies: Nicole Ardoin

Associate Director: Susannah Barsom

Anthropology: Lisa Curran, William H. Durham, James Ferguson, Lynn Meskell, Krish Seetah, Michael Wilcox

Biology: Barbara Block, Larry B. Crowder, Gretchen C. Daily, Giulio De Leo, Rodolfo Dirzo, Anne Ehrlich (emerita), Paul Ehrlich (emeritus), Christopher Field, Tadashi Fukami, Elizabeth Hadly, Donald Kennedy, Fiorenza Micheli, Harold Mooney, Erin Mordecai, Stephen Palumbi, Kabir Peay, Robert Sapolsky, Shiripad Tuljapurkar, Peter Vitousek


Civil and Environmental Engineering: Sarah L. Billington, Alexandria Boehm, Craig S. Criddle, John Dabiri, Jennifer Davis, Martin Fischer, David Freyberg, Olivier Fringer, Mark Jacobson, Rishee Jain, Jeffrey Koseff, Michael Lepech, Raymond Levitt, Richard Luty, Gilbert M. Masters (emeritus), Stephen Monisimith, Leonard Ortolano, Ram Rajagopal

Communications: Jon A Krosnick

Earth System Science: Kevin Arrigo, Marshall Burke, Karen Casciotti, Page Chamberlain, Noah Diffenbaugh, Sybil Diver, Robert B. Dunbar, Scott Fendorf, Steven Gorelick, Rob Jackson, James Holland Jones, Julie Kennedy, Eric Lambin, David Lobell, Pamela Matson, Rosamond Naylor, Morgan O'NeIl, Leif Thomas, Gabrielle Wong-Parodi

Earth Systems Program: Patrick Archie, Tom Hayden, Suki Hoagland, Richard Nevele

Economics: Lawrence Gould, Charles Kolstad

Education: Nicole Ardoin, Daniel McFarland, Walter W. Powell
**Energy Resources Engineering**: Sally M. Benson, Adam Brandt, Jef Caers, Margot Gerritsen, Anthony Kovscek

**English**: Mark Algee-Hewitt

**Freeman Spogli Institute for International Studies**: Walter Falcon (emeritus), Francis Fukuyama, Stephen Stedman

**Geological Sciences**: Gary Ernst (emeritus), Stephan Graham

**Geophysics**: Jenny Suckale, Mark Zoback

**History**: Zephyr Frank, David Kennedy, Richard White, Mikael Wolfe

**Law**: Michelle Anderson, Janet Martinez, Deborah Sivas, Barton Thompson,

**Management Science and Engineering**: Dariush Rafnejad, James Sweeney, John Weyant

**Materials Science and Engineering**: Michael D. McGehee

**Medicine**: Jason Andrews, Michele Barry, Eran Bendavid, Mark Cullen, Christopher Gardner, Jeremy D Goldhaber-Fiebert, Desiree LaBeaud, Stephen P. Luby, Grant Miller, David Rehkopf, Thomas N. Robinson, Gary Schoolnik, Gary Shaw

**Philosophy**: Debra Satz

**Physics**: Leo Hollberg

**Political Science**: Bruce E Cain, Terry Karl, Clayton Nall, Kenneth Schultz, Jeremy Weinstein

**Program in Writing and Rhetoric**: Emily Polk

**Psychology**: Brian Knutson

**Sociology**: Mark Granovetter, Douglas McAdam, Richard Scott, Robb Willer

**Woods Institute for the Environment**: Newsha Ajami, Shilajeet Banerjee, Michael Wara

**Outside Stanford**:

**Carnegie Institution**: Ken Caldeira, Anna Michalak

**Packard Foundation**: Margaret Caldwell