# Environmental Justice

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Notes</th>
<th>Course</th>
<th>Credits</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EJ Core</strong></td>
<td>2 Environmental Justice specialty courses</td>
<td>NRE 566</td>
<td>NRE 577</td>
<td>NRE 593</td>
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<td></td>
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<td>NRE 596</td>
<td>NRE 501.089</td>
<td>NRE 594.001</td>
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<tr>
<td><strong>Distribution</strong></td>
<td>International</td>
<td>One course focused on International context of EJ</td>
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<tr>
<td><strong>NRE Core</strong></td>
<td>NRE 509 (Natural Systems Core) NRE 510 (Social Systems Core)</td>
<td>IAMS Requirement Two courses; 3CR minimum Please see page 3 for approved courses.</td>
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<td>IAMS Requirement Two courses; 3CR minimum Please see page 3 for approved courses.</td>
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<tr>
<td><strong>Electives</strong></td>
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<td>Must be a graduate level course at 400-level and above.</td>
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<tr>
<td><strong>Analytics</strong></td>
<td>Analytics</td>
<td>6 credits of analytics. One course must be NRE 538 or equivalent; the other must be from SNRE analytics list</td>
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<td><strong>Opus or Non-opus</strong></td>
<td>Opus</td>
<td>Option 1: At most, 6 credit hours of NRE 700/ NRE 701</td>
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<td></td>
<td>Non-opus</td>
<td>Option 2: Additional coursework. See advisor for non-opus guidance</td>
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<tr>
<td><strong>Cognates</strong></td>
<td>Minimum 4 credit hours outside of SNRE [Rackham requirement]</td>
<td>Can be double counted with other degree requirements.</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>TOTAL “NRE” CREDIT HOURS</td>
<td>Minimum 25 of 42 credit hours</td>
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<td>TOTAL CREDIT HOURS</td>
<td>Minimum 42 credit hours</td>
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*Any waiver or substitution of degree requirement must be approved by the appropriate faculty and submitted to OAP.*
Course List

International:

SNRE
NRE 555.001 Climate and Development (F) (Lemos)
NRE 563.001 International Environmental Policy (Agrawal) (W)
NRE 565.001 Principles for Transition (Princen) (F)
NRE 664.001 Food & Fuel: Research Questions at the Base of the Economy (Princen) (F)
NRE 573.001 Environmental Footprinting and Input-Output Analysis (Xu) (W)
NRE 577.001 Political Ecology, Environmental Security, and Conflict (Butt) (F)
NRE 677.041 Climate Change Adaptation (Bierbaum) (F)

Public Health
EPID 666 Health and Socioeconomic Development
HBEHED 516 Global Health: Anthropological Perspectives

Public Policy
PubPol 759 Genetics and Biotechnology Policy

Urban Planning
UP 658 Urban and Regional Planning in Developing Countries

Analytics:

Two analytic courses (6 credits). One must be statistics; the other course must be from the SNRE Analytics list. Both lists can be found online:

http://www.snre.umich.edu/degree_programs/analytics_list

http://www.snre.umich.edu/sites/all/files/documents/u30708/Statistic%20Courses%200812.pdf

Electives:

Three or more credit hours, they must be from any U-M graduate courses offered at 400 level or above.

Recommended Electives:

SNRE
NRE 501.007 Aquaculture and Sustainability (Diana)
NRE 513 Strategies for Sustainable Development (Hoffman)
NRE 514/EHS 572 Environmental Impact Assessment
NRE 531.001 Principles of GIS (Brown)
NRE 532 Natural Resource Conflict Management Theory (Wondolleck)
NRE 533 Negotiation Skills in Environmental Dispute Resolution (Yaffee & Wondolleck)
NRE 540 GIS and Natural Resource Applications (Brines)
NRE 556 Field Ecology (Perfecto)
NRE 560/UP 560 Behavior and Environment (DeYoung)
NRE 562 Environ Policy & Politics (Yaffee)
NRE 566 Public Opinion and the Environment (Mohai)
NRE 687 Landscape Analysis and Planning
NRE 570 Env Econ: Quantitative Methods & Tools (Moore)

Law
Law 684 Health Law and Policy
Law 771 How to Save the Planet
Law 791 Environmental Crimes
Law 805 Environmental Justice

Political Science
POLSCI 730 Women and Employment Policy

Public Health
HBEHED 623 Racial/Ethnic Health Disparities
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>HBEHED 640</td>
<td>Community Organization for Health Education</td>
</tr>
<tr>
<td>HBEHED 690</td>
<td>Environmental Health Promotion</td>
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<tr>
<td>EHS 680</td>
<td>Environmental Management of Hazardous Substances.</td>
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<tr>
<td>EHS 507</td>
<td>Exposure Assessment [F]</td>
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<tr>
<td>EHS 508</td>
<td>Principles of Risk Assessment.</td>
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<tr>
<td>EHS 574</td>
<td>Environmental Chemistry</td>
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<tr>
<td>EHS 688</td>
<td>Topics in Environmental Health Sciences</td>
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<tr>
<td>EPID 705</td>
<td>Epidemiology in Public Health Policy</td>
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<tr>
<td>PubPol 736</td>
<td>Poverty and Inequality</td>
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**Urban Planning**

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<tr>
<td>UP 507</td>
<td>Geographic Information Systems</td>
</tr>
<tr>
<td>UP 654</td>
<td>Concepts and Techniques of Community Participation.</td>
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<tr>
<td>UP 657</td>
<td>Social Justice and the City</td>
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**Research Methodology Courses**

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<thead>
<tr>
<th>Discipline</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>Sociology</td>
<td>Qualitative Research Methods</td>
</tr>
<tr>
<td>Statistics</td>
<td>Introduction to Quantitative Research Methods</td>
</tr>
<tr>
<td>Political Science</td>
<td>Problems in Behavioral Research Methods</td>
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<tr>
<td>Health</td>
<td>Community-Based Participatory Research. (Israel)</td>
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**Integrated Analytic Methods and Skills Requirement**

Students are required, at some point during their time enrolled in the program, to take 2 courses composing at least 3 credits from a faculty-approved list of courses that focus on integrative analytic methods and skills. The faculty-approved existing courses that satisfy this requirement are listed below:

**Fall**

- 501 – Social Vulnerability & Adaptation to Environ Change
- 578 – Urban Stormwater
- 552 – Ecosystem Services
- 514 – Environmental Impact Assessment
- 533 – Negotiation Skills (Fall A)
- 536 – Mediation Skills
- 548 – Land Use and Global Change
- 570 – Environmental Economics
- 597 – Environmental Systems Analysis
- 564 – Localization Seminar
- 677 – Climate Adaptation Seminar
- 687 – Landscape Planning

**Winter**

- 501 – Network Analysis for Nat Res & Environ Planning (Winter A)
- 501 – Science and Management of the Great Lakes
- 501 - Decision Aiding for Risk & Environmental Management
- 532 – Natural Resource Conflict Management
- 545 - Applied Ecosystem Modeling (Winter B)
- 550 – Systems Thinking for Sustainable Development
- 557 – Industrial Ecology
- 581 – Advanced Environmental Education
- 589 – Ecological Restoration
- 610 – Advanced LCA Methods and Software Tools (Winter B)
- 641 – Interdisciplinary Research Methods
- 787 – Metro Studio (MLA only)

At most, 6 credit hours of NRE 700 (thesis/practicum) or 6 credits hours of NRE 701 (project); Non-opus – additional coursework.
Cognates:

Minimum of 4 credit hours outside of SNRE. They can be double counted with either required or elective courses.

Procedure for Obtaining Course Waiver to Substitute for Environmental Justice Requirements

No substitutions will be allowed for environmental justice (EJ) core courses. Any student wishing to substitute a non-core course that is not on the list of courses already approved by the EJ faculty and SNRE (see pages 2-5) must follow these steps to seek approval:

1. Identify the course for which a waiver is sought.

2. Identify a graduate-level course to be substituted.

3. Contact your advisor to discuss the substitution and make a request for a waiver.

4. Provide your advisor and the EJ Field of Studies (FoS) coordinator with:
   a. A description of the course to be substituted
   b. A syllabus of the course to be substituted.

5. The advisor will bring the matter to the attention of the EJ faculty at their FoS meeting (the EJ faculty meets roughly once per month).

6. The EJ FoS faculty will vote on the substitution.

7. The advisor will inform the student of the outcome of the vote after the EJ FoS meeting.

8. If the waiver is approved, the student should complete the required OAP form, obtain the advisor’s signature then submit the form to OAP.

The Environmental Justice Advising Process

Each EJ student is expected to meet with their advisor at least once each semester to discuss their course of study and other curricular matters. At each appointment the student should bring:

1. A completed course of study plan (see page 1),

2. A list of courses selected for upcoming terms.

3. Waiver request information if one is being sought.

Each semester the EJ faculty will host a group advising session with EJ students before registration begins. In addition, each EJ student is expected to schedule individual advising sessions with their advisor. The most efficient ways of scheduling individual appointments is through (a) email, or (b) visit your advisor during regularly-scheduled office hours.