Welcome to IES!!!
Environmental Sustainability
A Key Component of Loyola University Chicago’s Mission to Promote Social Justice.

Loyola is one of the only universities that requires every student, regardless of their major, to take an Environmental Issues course.
Loyola’s Institute of Environmental Sustainability – Launched July 2013

Comprises:
- Academic Programs
- Office of Sustainability
- Biodiesel Lab
- Greenhouse/Aquaponics
- LUREC [Loyola University Retreat & Ecology Campus]

San Francisco Hall – 410 bed green dorm
91 geothermal wells, 500 feet deep
3,100 sq ft greenhouse
2 aquaponics facilities
Clean-Energy lab
Research labs
There Are Currently 6 Undergraduate Degrees

- B.S. – Environmental Science [ESCI]
- B.S. - Environmental Science w/ conc. in Conservation & Restoration [ESCR]
- B.S. - Environmental Science w/ conc. in Food Systems & Sustainable Agriculture [ESFS]
- B.S. – Environmental Science w/ conc. in Public Health [ESPH]
- B.A. – Environmental Studies [ESTD]
- B.A. – Environmental Policy [ENVP]

5-Year Dual Degree Programs
- ENVS/Master’s in Business Administration
- ENVS/Master’s in Public Policy
- ENVS/Master’s in Public Health
Program Growth

IES Majors

Year


# Students

BS BA ESCR ESFS ENVP ESPH

Year


# Graduates

Congratulations Winter 2015/Spring 2016 IES Graduates!!
# IES Inter-Disciplinary Curriculum

## Common Core for All Majors

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENVS 137</td>
<td>Foundations of Environmental Science I</td>
<td>3</td>
</tr>
<tr>
<td>ENVS 237</td>
<td>Foundations of Environmental Science II</td>
<td>3</td>
</tr>
<tr>
<td>ENVS 238</td>
<td>Foundations of Environmental Science Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENVS 280</td>
<td>Ecology</td>
<td>3</td>
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<tr>
<td>ENVS 286</td>
<td>Ecology Lab</td>
<td>1</td>
</tr>
<tr>
<td>ENVS 288</td>
<td>Applied Interdisciplinary Data Analysis</td>
<td>3</td>
</tr>
<tr>
<td>STAT 103 or</td>
<td>Fundamental Statistics</td>
<td>3</td>
</tr>
<tr>
<td>STAT 203 or</td>
<td>Statistics</td>
<td></td>
</tr>
<tr>
<td>ENVS 284 or</td>
<td>Environmental Justice</td>
<td>3</td>
</tr>
<tr>
<td>PHIL 287 or</td>
<td>Environmental Ethics</td>
<td></td>
</tr>
<tr>
<td>THEO 184</td>
<td>Moral Problems: Ecology Crisis</td>
<td></td>
</tr>
<tr>
<td>ECON 328 &amp;</td>
<td>Environmental Economics</td>
<td>3</td>
</tr>
<tr>
<td>PLSC 392</td>
<td>Environmental Politics</td>
<td>3</td>
</tr>
<tr>
<td>ENVS 350a or</td>
<td>STEP: Water</td>
<td>3-4</td>
</tr>
<tr>
<td>ENVS 350f or</td>
<td>STEP: Food Systems</td>
<td></td>
</tr>
<tr>
<td>ENVS 281c or</td>
<td>Environmental Sustainability &amp; Science in China</td>
<td></td>
</tr>
<tr>
<td>ENVS 281v or</td>
<td>Humans &amp; the Environment in Contemporary Vietnam</td>
<td></td>
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<tr>
<td>ENVS 340 or</td>
<td>Independent Environmental Research</td>
<td></td>
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<tr>
<td>ENVS 391 or</td>
<td>Environmental Internship</td>
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<tr>
<td>ENVS 395</td>
<td></td>
<td></td>
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<tr>
<td>ENVS 390</td>
<td>Integrative Environmental Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

### Bachelor of Science Degrees:
- Environmental Science [51 – 55 cr.]
- Environmental Science w/ conc. Conservation & Restoration [52 – 52 cr.]
- Environmental Science w/ conc. Food Systems & Sustainable Agriculture [51 – 53 cr.]
- Environmental Science w/ conc. Public Health [51 – 54 cr.]

### Bachelor of Arts Degrees:
- Environmental Studies [50 – 51 cr.]
- Environmental Policy [50 – 51 cr.]

### 5-year Dual-Degree Programs:
- B.S. Env. Sci./Masters in Business Administration
- B.A. Env. Stud./M.B.A
- B.S. Env. Sci/Masters in Public Health
Minor: Environmental Action & Leadership

- Seven Courses (21 Credit Hours)
  I. Scientific Background [2 courses]
  II. Ethics & Society [1 course]
  III. Policy, Leadership & Action [3 courses]
  IV. Application [1 course]
Minor: *Sustainability Management*

- **Seven Courses** (21 Credit Hours)
  - Environmental Sustainability (ENVS 283)
  - Principles of Microeconomics (ECON 201)
  - Fundamentals of Marketing (MARK 201)
  - Managing People & Organizations (MGMT 201)
  - Sustainable Business Management (ENVS 363)
  - Environmental Economics (ECON 328)
  - Marketing for Environmental Sustainability (MARK 320)
Minor: *Environmental Science*

- **Seven Courses** (21-22 Credit Hours)
  I. Scientific Background [4 courses]
  II. Policy, Business & Society [1 course]
  III. Methods & Application [2 courses]
Plenty of Credit Hours Left to Pursue a Minor

- Minors Pursued by IES Majors
  - Environmental Action & Leadership
  - Biostatistics
  - International Business
  - International Studies
  - Spanish
  - Political Science
  - Marketing
  - Bioethics
  - Management
  - Chemistry
  - Visual Communication
  - Urban Studies
  - Psychology
  - Information Systems
  .... And More
University Core Curriculum

“I hope that our students will use the new Core to begin to question how they can affect the world...By the end of their time at Loyola, they will have built up a set of skills and values that transfer to the rest of their lives.”

-Michael J. Garanzini, S.J. Chancellor and CEO

48 Credit Hours (16 classes)
Core Curriculum: Knowledge Areas

• **College Writing (1 course)**
  - UCWR 110: Writing Responsibly is required of all students
  - Fall 2013/Spring 2014

• **Artistic Knowledge (1 course)**
  - One 3-credit course or at least 3 credit hours of Artistic Core classes, including 1- or 2-credit music (MUSC) or dance (DANC) courses

• **Historical Knowledge (Foundational and Tier II)**
Core Curriculum: Knowledge Areas

- Literary Knowledge (Foundational and Tier II)

- Quantitative Analysis (1 course)
  - Calculus I (MATH 131, MATH 161) or higher-level math also satisfies requirement

- Philosophical Knowledge (Foundational and Tier II)
Core Curriculum: Knowledge Areas

• **Scientific Literacy (Foundational & Tier II)**
  - IES Students fill this within the Major

• **Societal & Cultural Knowledge (Foundational & Tier II)**
  - IES Students in Environmental Policy fill this within the Major

• **Theological & Religious Studies Knowledge (Foundational and Tier II)**
  - Study of Roman Catholicism is not required
Core Curriculum: Knowledge Areas

- **Ethics (1 course)**

- **Engaged Learning (1 course)**
  - “expand knowledge in the service of humanity through learning, justice, and faith,”
  - Internships, Service-Learning, Field Work, Undergraduate Research, or Public Performance
  - Several IES Courses

- **Courses approved for the Core Curriculum requirements may also apply toward fulfillment of major or minor requirements.**
Other Degree Requirements

- Proficiency in a Language Other than English
- 2 Writing Intensive Courses
- Maintenance of ≥ 2.0 GPA*

*Overall GPA drops < 2.0 = Probation
Overall GPA < 2.0 following semester, semester GPA ≥ 2.33 = Continued Probation
Overall GPA < 2.0 following semester, semester GPA < 2.33 = Dismissal
"The basic commitment of a university is to search for and to communicate the truth as it is honestly perceived. The university could not accomplish its purpose in the absence of this demanding standard. Students of this university are called upon to know, to respect, and to practice this standard of personal honesty."

-- Loyola University Chicago Undergraduate Studies Catalog

- **Plagiarism**
  For example: Failing to properly cite sources

- **Cheating**
  For example: Obtaining test answers from another student; using other students’ work as your own

- **Dishonesty**
  For example: Falsifying documents to petition for an excused absence

**Possible Ramifications**

“F” on assignment, “F” in course, referral to the Dean’s office, Expulsion for repeat offense
Engaged Learning

- IES Majors Engage Closely with Faculty
  - Small Classes
  - S.T.E.P Courses
  - LUREC Summer Courses
  - Faculty-Mentored Research
  - Internship Opportunities
Loyola University Chicago Retreat & Ecology Campus, 2011

- Student Farm
- Wetland Restoration
- Oak-Hickory Woodland Restoration
LUREC Summer/Winter Field Courses

- Sustainable Agriculture
- Field Ornithology
- Conservation Biology
- Field Archaeology
- Restoration Ecology
- Wetland Restoration
- Principles of Ecology w/ Lab
- Winter Ecology [J-Term]
Solutions To Environmental Problems [STEP]

Providing Hands-On Problem-Solving Skills to Students
Solutions To Environmental Problems [STEP]

STEP: BIODIESEL

2007  2008  2009  2010  2011  2012  2013  2014

STEP: FOOD SYSTEMS

STEP: WATER
STEP: Biodiesel

- Methanol (pure)
- Methanol (waste)
- Biodiesel
- Glycerin

ARCTIC WOLF WINDSHIELD-WIPER FLUID

$\$\$\$

BioSoap products
Solutions To Environmental Problems [STEP]

Gallons: 106 196 250 30,000

STEP: BIODIESEL

Now in LUC Soap Dispensers & Sold in 100-Gallon Drums
Solutions To Environmental Problems [STEP]

2007 2008 2009 2010 2011 2012 2013 2014

LUREC Student Farm  Campus Gardens  Farmer’s Market  Composting Program  Campus Apiary  Mushroom Cultivation  STEP: FOOD SYSTEMS
Winthrop Garden

2013
1100 sq ft, 18 Raised Beds
Initiated by student groups

2014
2500 sq ft, 40 Raised Beds
Rooftop gardens at Lake Shore & Downtown Campuses
Farmers Market

STEP Project - 2009

Student Follow-Up w/ Mentoring

New Venue - 2014

Opened - 2011
Farmers Market

**Purpose**
- Outcome of STEP Food course identifying alternatives to conventional food procurement
- US Dept. of Agriculture Grant to support LINK Card (2013)
- LINK Matching Grant (2014)

**Results**

Increase in customers
- 2013: 2,880
- 2014: 3,600

LINK Sales
- 2013: $750
- 2014: $2,050
  ($1,524 LINK plus $526 double value coupon purchases)

**Student Engagement**

The Market Management Team
- Three students (1 IES funded; 2 Northern Trust funded)
- Est. 500 hours

LINK: Electronic food stamp benefits for families in need – direct connection to the social justice values
Solutions To Environmental Problems [STEP]

From Pollution to Possibility: A Sustainable and Interdisciplinary Solution to Biodiesel Production Wastewater

– 1 of 7 2013 Award Winners
Managing for Resilience
Lessons from Ecology*

Nancy E. Landrum
(corresponding author)
Quinlan School of Business &
Institute of Environmental Sustainability
Loyola University Chicago
Chicago, Illinois, U.S.A.
nlandrum@luc.edu

Ray Dybzinski
Institute of Environmental Sustainability
Loyola University Chicago
Chicago, Illinois, U.S.A.
radybzinski@luc.edu

Amina Smajlović
Institute of Environmental Sustainability
Loyola University Chicago
Chicago, Illinois, U.S.A.
asmajlovic@luc.edu

Brian M. Ohsowski
Institute of Environmental Sustainability
Loyola University Chicago
Chicago, Illinois, U.S.A.
bohsowski@luc.edu

Get Class Credit [ENVS 391]
- Get Funded
- Get Hands-On Experience Conducting & Presenting Research
- Get Published (maybe)
Study Abroad

Belize Courses

Rome Center

Newman Center – Uppsala, Sweden

Beijing Center

Vietnam Center
IES Internships

- Paid Internships Available in...
  - Urban Agriculture
  - Composting
  - Aquaponics/Greenhouse
  - Sustainability
  - Biodiesel
  - Communications
  - LUREC Restoration
  - LUREC Biodiversity
External Internships – **ENVS 395**

- Environment Illinois
- Mid-West Energy Efficiency Alliance
- Iroquois Valley Farms
- Go Green Wilmette
- Food & Water Watch
- The Chicago Council on Global Affairs
- Whole Systems Integration
- Rogers Park Business Alliance
- Green Chicago Restaurant Coalition
- Liberty Prairie Foundation
- Cook County Forest Preserve District
- Foresight Design Initiative
- Uncommon Ground
- Davey Research Group – Restoration Services
- Cook County Farm Bureau
- HAVI Global Solutions
- Oak Park Health District
- Cook County Department of Corrections
- Metropolitan Water Reclamation District
- Clean Energy Trust
- EDF Climate Corps
- Citizen’s Utility Board
- Chicago Wilderness
- Peggy Notebaert Nature Museum
- Student Conservation Association
- Loud Grade Produce Squad
- Friends of the Chicago River
- Michael Fields Agricultural Institute
- The Delta Institute
- Environmental Law & Policy Center

- Slots set aside for IES majors (2/semester... paid) ... and more
Loyola University Chicago Climate Change Conference
Global Climate Change: Economic Challenges and Solutions

Panel Discussions:
- Climate Justice
- Climate Activism
- International Policy
- New Economics

March 17-19, 2016
Loyola University Chicago
1032 W. Sheridan Rd.
Mundelein Auditorium
www.luc.edu/climatechange

Keynote Speaker
Naomi Klein

Research Seminar Series
Environmental Injustice and the Failure of Current Policy
Kim Ferraro is the Senior Staff Attorney with the Indiana-based Hoosier Environmental Council (HEC). Kim came to HEC from the Legal Environmental Aid Foundation (LEAF), the state's only non-profit legal aid services organization focused on environmental protection.

LUREC Restoration Volunteer Day
Every 2 Weeks Year Round

Soar: Student Operation for Avian Relief

Recycle Mania

Water Week 2016

Waste Week 2014

Energy Week 2014

Green Power at Loyola
5:30 PM IES Room 123
Loyola students are making the case for green investments and green power at Loyola. Join members of S.E.A. (Student Environmental Alliance) as they share Loyola’s power puzzle. Plus hear a big announcement about Loyola’s commitment to a sustainable future. luc.edu/energyweek
Have an Idea? Make it Happen with TGIF

Net Impact
Student Environmental Alliance
Restoration Club LUC
Community Organization

GET INVOLVED, FOR GOD’S SAKE!!
## Post-Baccalaureate Education

### Master’s Programs

**Institutions**
- University of Vermont
- Loyola University Chicago
- University of San Francisco
- Stanford University
- Cornell University
- Duke University
- The New School
- University of Alabama
- University of Bristol
- Yale University
- University of Illinois
- University of Illinois - Chicago
- Ohio State University
- University of Nevada – Reno
- Indiana University – SEPA
- University of Minnesota - Duluth

**Degrees**
- Environmental Science
- Biology
- Community Development & Applied Economics
- Ecotoxicology
- Public Health
- Environmental Health
- Business Administration – Finance
- Business Administration – Management
- Business Administration - Economics
- Higher Education
- Crop Science
- Urban Policy & Planning
- Hydrogeology
- Environmental Management
- Aquatic Ecology
- Civil & Environmental Engineering
- Environmental Policy & Sustainable Management
- Global Wildlife Health & Conservation

### Ph.D. Programs

**Institutions**
- Duke University
- Harvard University
- Virginia Tech
- Michigan State University
- University of Nevada - Reno

**Degrees**
- Environmental Chemistry
- Evolutionary Biology
- Science & Technical Studies
- Applied Aquatic Ecology
- Water Sustainability & Climate

### Law Programs

**Institutions**
- Indiana University
- Emory University
- Northwestern University
- University of Washington
- George Washington University
- University of Chicago
Learn – Lead - Serve – Solve – Make a Difference

Contact Info: Dr. Chris Peterson, IES Academic Program Director (cpeters@luc.edu; 773-508-2950; BVM Hall 316)