



**O'NEILL SCHOOL OF PUBLIC & ENVIRONMENTAL AFFAIRS (SPEA)**

**Teaching Urban Forest Management at a Non-Forestry  
School: An opportunity to expand the profession**

Burney Fischer, Clinical Professor Emeritus

# Urban Forestry at Forestry Schools – Fischer

## Observation

- Growing beyond 1-2 courses to a Concentration/Minor/Degree!
- Besides a specific UFM course, there's an arboriculture course, I&D course, maybe UE and all this builds upon basic forestry courses from Dendrology – Forest Measurements – Forest Management – etc.
- Annual graduation #'s still small but more students taking selected UFM courses, particularly arboriculture (includes tree climbing, equipment, field experiences, ....)
- Great stuff but not building the profession fast enough
- Environmental Science type programs is another avenue to embrace!

# Urban Forest Management at O'Neil SPEA

- One, 3 credit course taught each Spring Semester – not a curriculum!
- Initiated 2006, taught every spring through 2018, will continue in Fall 2019
- First class 18 students, soon reached cap - 40 students, over 500 alumni
- Annual mix ~30 Undergraduate & ~10 Master Students
  - UG's mostly BS Environmental Mgmt, with a few BSES, Parks & Rec, others
  - Masters – MSES or MSES/MPA or MES
- Background for most students is an Applied Ecology course
- Interest in environmental mgmt/science/sustainability
- An elective course for all students
- Some master students take Urban Ecology course the following year  
(Note: UE initiated 2010 at request of UFM students, **particularly Jess Vogt!**)

# Comparing Student Knowledge/Backgrounds

## Forestry School

Students arrive at UFM knowing:

- Tree identification, forest biology
- Tree measurement – DBH, ....
- Forestry equipment of all kinds
- Summarizing tree inventory data
- Forest system mgmt
- Tree valuation not eco-services

## Environmental Science Program

Students arrive understanding:

- General ecology
- Social-ecological systems
- Municipal governance
- Focuses on sustainability
- Urbanish – UHI, stormwater, ...
- Enhanced communication skills

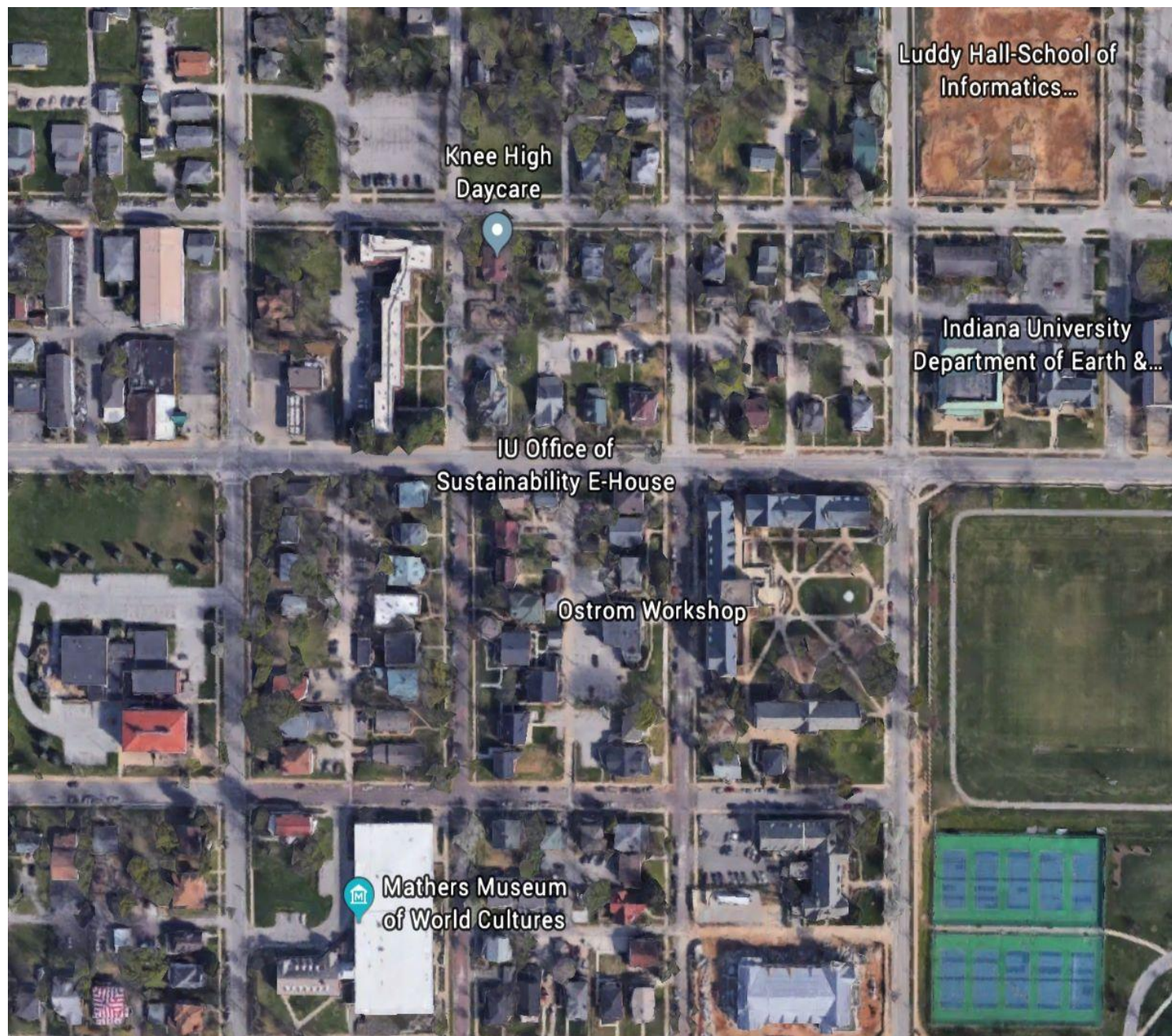
# Course Format & Limitations

Meets TTH – 11:15-12:30

Scheduling – before classes end 10:45am, following classes begin 1pm

No class lab so must arrange field experiences on campus or nearby neighborhoods (preferred, more city like)

City Forester supports - annual tree planting & tree care in two NH's



# **SPEA UFM General Course Outline – Jan-Feb**

- Introduction to Urban Forests and Urban Forest Mgmt
- Sustainable UF's as Social-Ecological Systems (SES's)
- B/C's & Ecosystem Services/Disservices - Urban Trees/Forests
- Urban Tree Canopy and other Data Analysis (KIB/TNC Geographer)
- Nat'l, State and Local Players in UFM (Indianapolis City Forester)
- Community Tree Planting Campaigns (Keep Indianapolis Beautiful)
- Municipal Urban Forestry & Tree Law (Law Student-UFM alumni)
- Mid-course Summary and Mid-term Exam

# **SPEA UFM Course Outline – March-April**

- Street Tree Inventory and Assessment (2-wks – includes 2 field days)
- Introduction to Tree Biology
- Tree Care and Mgmt (includes field experience)
- Tree Industry Review (includes Davey Tree/DRG field experience)
- Tree Planting (includes field experience with B'ton City Forester/Crew)
- Case Study Reports (Neighborhood case study, Projects with KIB, etc.)
- Graduate Student Research Paper
- Final Exam



**Mark Noark & Aren Flint, Davey Tree/DRG, conducting introduction to “Green Industry” Day, IUB Wells House Lawn (2018)**



**Student team from the IUB SPEA Urban Forestry Class prepares a tree to be planted on Cottage Grove Avenue, Bloomington IN as part of an Arbor Week tree planting event with the City. (April 2018, Indiana Daily Student)**





# Takeaways (13 years) – the ES Connections

- Think broadly when developing course content, one course elective
- One clear course goal – developing future tree friendly urban citizens
- Connecting UFM to sustainability of cities
- Connecting UFM to future jobs is important, but not critical
- Connecting to stakeholders – urban foresters, arborists, nonprofits
  - See next slides for advice for stakeholders

# UF Stakeholders Ideas – UFM Course

## Startup

- Explore any Environmental Degree Programs
  - Environmental Science/Studies/Management
  - Sustainability with an Environmental Focus
  - Urban Studies with an Environmental Focus
  - Non-profit Management (note: I speak to SPEA NPM class each year)
- Find Interested Faculty & offer to make
  - Class Visit – Guest Speakers, Panel Members, Job Fairs
  - Present Local Questions You Would Like to See Addressed
  - Provide Case Study Projects – small to large
- Offer internships, Volunteer Events, Full-time positions, etc.

# Connecting Urban Greening NP's to ES Programs

- Opportunity to Raise Your Flag in the Classroom
- Source of Interns & FT Employees
- Schedule Events with Student Organizations
- Class Projects – In-class Q&A; Suggest question(s) to follow-up on
  - Keep Indianapolis Beautiful (KIB) always brings a question for a class breakout
  - Several of these questions become a small teams exercise with product to KIB
- Case Studies
  - KIB & City of B'ton NH Case Studies have been a course staple for years
- The Possibilities are Endless

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