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

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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’Neill 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

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