

Fall 2020 Course Syllabus
Urban Forest Management
SPEA E422/522 (3 credit hours)

Faculty Instructor: Dr. Sarah Mincey Clinical Associate Professor O'Neill School of Public and Environmental Affairs skmincey@indiana.edu
Teaching Assistant: Clint McGill MES Candidate O'Neill School of Public and Environmental Affairs mcgil@indiana.edu

Synchronous class meeting time:
Tuesday / Thursday 11:30am – 12:45pm EST

Join from computer or mobile:
<https://iu.zoom.us/j/93108951005?pwd=TUJJcUluRWIMVFFkK0crdFhMLzZyUT09>

Meeting ID: 931 0895 1005
Password: UrbForest
One tap mobile
+13126266799,,93108951005# US (Chicago)
+16465588656,,93108951005# US (New York)

Online instructor / student meeting time:
Tuesday / Thursday 1:00 – 2:00pm EST (generally)
Or by appointment

Join from computer or mobile:
<https://iu.zoom.us/j/8134428391?pwd=S05NR1ljZ0R1aVNudlVhKV1QyRVBkdz09>

Meeting ID: 813 442 8391
Password: UrbForest
One tap mobile
+16465588656,,8134428391# US
+13017158592,,8134428391# US

Course Description

This course, framed by a social-ecological systems perspective, explores the theory and practice of sustainable urban forest management for resilient cities. Urban trees and their associated vegetation provide a myriad of ecological, social, and economic benefits to communities. Arguably, some aspects of urban forests are said to produce disservices, as well. In either case, urban trees impact people. Likewise, people impact trees; human decision-making and actions – active and passive ones – help to structure the urban forest. For example, while communities may commit to plant millions of street trees, they may simultaneously ignore vulnerable remnant forest stands planned for removal by developers. In other words, urban forest structure and therefore function are embedded within a complex, adaptive system with emergent properties – an ecological system intricately linked to human social systems. Such systems require management for the production and equitable distribution of their public good.

This course will cover both the theory and practice underpinning urban forest management. Such an approach requires a multi-method course format. Students will be expected to read a moderate amount (~2-3 hours / week) of scholarly and gray literature as well as popular media to prepare for class activities and to undertake course assignments. Classroom time will be spent in a mix of discussion, instructor-offered lectures, group presentations, peer-to-peer/group activities, classroom exercises, and importantly, guest presentations. Numerous guests who are significant players in urban forestry in Indiana will join us over the course of the semester. Students should go out of their way to engage these professionals for their generosity of time and the expert network they represent for supporting students' course projects and future careers.

Course Learning Goals and Objectives

This course is designed to equip each student with the knowledge and skill sets to successfully evaluate the sustainability of urban forests through a holistic, social-ecological lens. At the end of the course, students should be able to:

1. Apply a social ecological systems framework and relevant theory to evaluate urban forest management decisions for sustainable outcomes that contribute to resilient cities.
2. Understand the benefits (ecosystem services) and costs of urban forests and apply their valuation for management strategies.
3. Evaluate urban forests through data - street tree and urban forest inventory analysis.
4. Understand basic tree biology, morphology and taxonomy, tree planting and maintenance strategies for urban settings and apply it to urban tree inventories and management.
5. Understand the governance of urban forests (e.g. governing bodies across scales, tree law, etc.) and apply that knowledge toward sustainable governance strategies.

6. Understand the variety of actors and organizations across sectors influencing urban forest structure and evaluate their positionality in developing management strategies.
7. Understand local and regional urban forestry contacts which expand students' networks for service, internships, and career opportunities.
8. Apply general management skills (leadership, communication, planning/organizing, holistic and strategic-thinking, problem-solving, conflict management) through group work, particularly for graduate students in leadership roles.

Readings and Canvas

Students will be expected to read a moderate amount (~2-3 hours / week) of scholarly and gray literature as well as popular media to prepare for weekly class discussions and activities and to undertake course assignments. There is no textbook for this course. Rather, I will supply course reading and viewing materials via Canvas. Individual readings are contained within "Modules" which are tied to individual weeks of the course schedule (see below) and should be completed prior to our first class meeting of the week.

Graded Course Assignments

Canvas will be used for dissemination of and submission of assignments through the "Assignments" tab in Canvas and linked from "Modules." Grades for assignments will be posted through Canvas. There are four main graded assignments for this course – two of those assignments (50% of your overall grade) are primarily individually completed and two (the other 50% of your grade) require group work. These assignments are summarized below but more details, including grading rubrics, are included in Canvas Assignments.

1. Individual Class Participation (20% of overall grade) – assessed throughout semester

This online semester is plagued with difficulty, one being that without face to face contact, it's really hard to stay engaged to learn the subject matter, and under such circumstances, our time together online could verge on painfully boring. Thus, I am interested in helping you to stay engaged in class by making individual participation a significant portion (20%) of your overall course grade. That said, the pandemic throws yet more wrenches at us – from time to time some of you may have connectivity issues, some of you may have kids at home needing attention (like me), and although I certainly hope not, some of you may need to care for friends, family or yourself through illness. Thus, I have established a participation component of the grade which I hope will flex with individual needs.

There are *at least* 8 Participation Assessment Activities (detailed below) across the course of the semester. Some are synchronous in-class activities, some will be asynchronous out-of-class activities, and some will be asynchronous group discussion board activities. For each activity, your participation will be assessed on a simple scale of 0 to 2, where 0 = no participation, 1 = weak/moderate participation, and 2 = strong/full participation (a specific grading rubric for each will be on Canvas). At the end of the semester, full credit for participation is equivalent to a participation assessment activity score which sums to 12 (in other words, although at least 16 points are possible, you will only be responsible for obtaining 12 points for 100% of this portion of your grade). Participation Assessment Activities include:

- I. **Tree Benefit/Cost Debate (a/synchronous group activity – assessed on 9/3):** You will read literature focused on the ecosystem services and disservices of urban trees. Your group will use the discussion board to develop notes for an in-class debate. In class, your group will defend a position using your literature notes.
- II. **SES Mapping (asynchronous group discussion board – 9/10 & 9/11):** In a group discussion board, identify an urban forest news story and then work to map the SES factors that appear to be contributing to a specified outcome.
- III. **Tree ID: Species, Morphology, Condition (individual out-of-class activity + asynchronous group discussion board – week of 9/29 and 10/1):** Your tree ID skills will be improved through documenting your process with a few trees from the field. You will upload tree ID photos and process to a discussion board and critique your group member's work there as well.
- IV. **Tree Planting (individual out-of-class activity – complete in October; campus tree planting on 10/8 or 10/9 TBD):** Over the course of the semester, participate in a tree planting; document this activity in photos and through a reflection on your concerns / questions / feelings about the process.
- V. **Group Research Project Progress (asynchronous group discussion board – assessed on 10/22):** A discussion board post that identified the group's research project topic, timeline for research project completion, roles for group members.
- VI. **Tree Law Cases (a/synchronous group activity – week of 11/10 and 11/12):** You will be presented with a few legal cases that involve urban tree issues. Your participation in this group discussion board and class discussion will be assessed.
- VII. **Redlining Map Reflection (asynchronous group discussion board – week of 11/17 and 11/19):** You will individually research a specific location in a redlined city, develop a discussion post for your group, and offer feedback to your group members for assessment.
- VIII. **Feedback on Final Presentations (synchronous discussion board – 12/1, 12/3, 12/8, & 12/10):** I hope to have good attendance during group presentations at the end of the semester, so you can earn participation points by tuning in and offering feedback to your peers.
- IX. **Other opportunities may come available**

2. Individual Street Tree Inventory and Analysis (30% of overall grade) – Due on October 15

The goal of this assignment is to collect and analyze street tree data like an urban forest manager. Individually, you will be responsible for inventorying at least 30 consecutive street trees on a city street segment of your choosing. You will collect each tree's location, genus, species, size and condition. You will then analyze these data to assess the sustainability of your street tree population using urban forest management benchmarks discussed in class. You will present your analyses in a short, technical report (~5-7 pages) that heavily utilizes figures and tables and references literature from the field. More details about this assignment are provided through the Canvas assignment and through in-class discussion.

3. Weekly Group Module Leadership (20% of overall grade)

During the semester, we cover about a dozen topics each in a weekly module. Each group will be responsible for taking a leadership role for one module. The purpose of this assignment is two-fold – 1) invest deeply in at least one topic this semester and 2) support your classmates in their learning (see my comments above about the myriad reasons that your peers might be absent and need additional help in the form of the products from this assignment). Groups will sign up for a week in which they will take on this role, so you will know in advance when you'll need to give this extra effort. The group will be expected to meet with the instructor the week prior to their module leadership for planning purposes.

Module leadership requires: 1) A planning meeting with the professor the week prior to their assigned module. 2) A one-page summary of the week's reading materials posted to that week's discussion board by Tuesday class time of their assigned module week. 3) A 5 - 10-minute oral summary of the week's reading/viewing materials offered live in class (on Tuesday or Thursday, depending upon schedule determined in planning meeting with professor). 4) Three discussion questions for the class posed in the summary document and live summary presentation and moderation of the class responses. 5) Class notes transcribed into the discussion board post summarizing the week's readings. More details about this assignment, including a grading rubric, are provided through the Canvas.

4. Group Research Project (30% of final grade) – Due 12/1 – 12/10

We can't possibly cover all topics or any one topic in great depth over the semester, so the goal of the group research project is to allow you to explore a topic of your group's interest in greater depth and share it with your classmates. Regardless of the topic you choose, the research must be framed through a social-ecological lens, considering the interacting social, ecological and institutional factors that yield a particular outcome related to your topic. There are two products that will come from this research project – an annotated bibliography/synthesis and a research presentation to be given to your classmates. The research will be completed by both graduate and undergraduate students together. More details about this assignment and a grading rubric will be posted to Canvas and introduced in class on October 6. On October 22, a Participation Assessment Activity related to this

research project will require that you submit a research topic, a timeline for research project completion, and roles for group members. Final research presentation slides and annotated bibliographies are due on 12/1; groups will present their research to the class on 12/1, 12/3, 12/8 and 12/10.

Course Grades

Course grades will follow the scale:

Letter grade	Percentage	Letter grade	Percentage
A+	97-100	C+	77-79.9
A	93-96.9	C	73-76.9
A-	90-92.9	C-	70-72.9
B+	87-89.9	D+	67-69.9
B	83-86.9	D	63-66.9
B-	80-82.9	D-	60-62.9

Course assignment contribute to course grades in the following manner:

Assignment	% of overall grade
1. Participation (multiple assessments)	20
2. Street Tree Inventory Report	30
3. Group Module Leadership	20
4. Group Research Project & Presentation	30
Total	100

Course Schedule and Itinerary

The schedule is subject to limited change in the event of extenuating circumstances. The likelihood of calendar adjustments is higher with more guest speakers, and we have many!

Class Meeting	Topic	Assignment due dates / Notes
8/25	Course introduction	
8/27	Defining urban forests, history of urban forests and current trends in land use	
9/1	Benefits/Costs of urban forests: Literature review and valuation	
9/3	Benefits/Costs of urban forests	Participation assessment: Tree Planting Campaign debate
9/8	Sustainable Urban Forests: Frameworks for sustainability	

9/10	Sustainable Urban Forests: Outcome metrics	Participation assessment: Urban Forest SES maps
9/15	Monitoring data: Top down / bottom up	
9/17	Monitoring data: KIB and Urban Tree Canopy/ planted tree inventory.	Guest speaker: Karl Selm, GIS Analyst, Keep Indianapolis Beautiful
9/22	Monitoring data: Bottom up details with street tree inventories	Assignment introduction: Street Tree Inventory Exercise
9/24	Monitoring data: Bottom up details and example from IU's Woodland Campus.	Guest speakers: IU Landscape Managers
9/29	Tree biology, morphology, and taxonomy	
10/1	Tree biology, morphology, and taxonomy	Participation assessment: Group Tree ID
10/6	Tree planting, planted tree inventories, survival, growth	Assignment introduction: Group Research Project
10/8	Tree planting, planted tree inventories, survival, growth	Participation assessment opportunity: Campus tree planting event either 10/8 or 10/9; <i>details forthcoming</i>
10/13	Tree care and management; threats to urban trees	Guest speaker: Dr. Lindsey Purcell, Urban Forestry Extension Specialist, Purdue University
10/15	Tree care and management; threats to urban trees	Assignment Due: Street Tree Inventory Exercise Report
10/20	Tree care industry	Guest speakers: Aren Flint and consultant team from Davey Resource Group
10/22	Tree care industry	Participation assessment: Group Research Project Progress
10/27	Governance: National/state/local actors in urban forest management	Guest speaker: Dr. Burney Fischer, Clinical Professor Emeritus, O'Neill School

10/29	Governance: Municipal urban forestry and municipal institutions	Guest speakers: Bill Kincius, Indianapolis Urban Forester
11/3	Tree law: Plans, reports, ordinances, legal cases	
11/5	Tree law: Plans, reports, ordinances, legal cases	Participation assessment: Group discussion of legal cases
11/10	Communities and trees 1: Urban tree planting and conservation campaigns	
11/12	Communities and trees 1: Urban tree planting and conservation campaigns	Guest speakers: KIB Community Forestry /Indiana Forest Alliance staff
11/17	Communities and trees 2: Equity and justice	Participation assessment: Redlining mapping
11/19	Flex day: Catch up, debrief, and/or group meetings with instructor	
12/1	Final group presentations	Due: Group Research Project Presentation Participation assessment: Peer review of Group Presentations
12/3	Final group presentations	Due: Group Research Project Presentation Participation assessment: Peer review of Group Presentations
12/8	Final group presentations	Due: Group Research Project Presentation Participation assessment: Peer review of Group Presentations
12/10	Final group presentations	Due: Group Research Project Presentation Participation assessment: Peer review of Group Presentations

Course Policies

Syllabus / Canvas / Communication

You are required to read and understand this syllabus as well as the online course management tool, Canvas. If you do not understand something within the syllabus or on Canvas, you must speak with the instructor to gain an understanding as these are the medium through which course material and assignments are communicated.

In terms of communication between instructors and students, I am always approachable; if you have any concern, question, or problem regarding the course, please see me. I welcome anything you would like to share regarding the course. In order to verify the identity of all parties involved, all email communication must originate from an Indiana University email account.

Online Course Materials: The faculty member teaching this course holds the exclusive right to distribute, modify, post, and reproduce course materials, including all written materials, study guides, lectures, assignments, exercises, and exams. While you are permitted to take notes on the online materials and lectures posted for this course for your personal use, you are not permitted to re-post in another forum, distribute, or reproduce content from this course without the express written permission of the faculty member. Any violation of this course rule will be reported to the appropriate university offices and officials, including to the Dean of Students as academic misconduct.

Academic Policies and Academic Integrity

You are expected to adhere to academic integrity. Via the syllabus and Canvas, you are expected to understand all policies and dates of submission for all assignments. Importantly, there will be no extra-credit assignments. Late assignments will be accepted, but your grade will be reduced, generally by 10% per day late.

Academic dishonesty: I will not tolerate cheating, plagiarism, or any other form of academic dishonesty or misconduct. If you have not done so, you should read the *IUB Code of Student Rights, Responsibilities, and Conduct*, which can be accessed at <http://www.iu.edu/~code> so you will be sure to understand what these terms mean and what penalties can be issued for academic dishonesty. Academic dishonesty can result in a grade of F for the class (an F for academic dishonesty cannot be removed from the transcript). Significant violations of the Code can result in expulsion from the University.

Plagiarism is using another person's words, ideas, artistic creations, or other intellectual property without giving proper credit. According to the *Code of Student Rights, Responsibilities, and Conduct*, a student must give credit to the work of another person when he/she does any of the following:

- a. Quotes another person's actual words, either oral or written;

- b. Paraphrases another person's words, either oral or written;
- c. Uses another person's idea, opinion, or theory; or
- d. Borrows facts, statistics, or other illustrative material, unless the information is common knowledge.

Note Selling Several commercial services have approached students regarding selling class notes/study guides to their classmates. Selling the instructor's notes/study guides in this course is not permitted. Violations of this policy will be reported to the Dean of Students as academic misconduct (violation of course rules). Sanctions for academic misconduct may include a failing grade on the assignment for which the notes/study guides are being sold, a reduction in your final course grade, or a failing grade in the course, among other possibilities. Additionally, you should know that selling a faculty member's notes/study guides individually or on behalf of one of these services using IU email, or via Canvas may also constitute a violation of IU information technology and IU intellectual property policies; additional consequences may result.

Behavioral Policies

O'Neill School expectations of civility and professional conduct¹

The O'Neill School takes matters of honesty and integrity seriously because O'Neill is the training ground for future leaders in government, civic organizations, health organizations, and other institutions charged with providing resources for the public, and for members of society who are vulnerable and who are lacking in power and status. Precisely because O'Neill graduates tend to rise to positions of power and responsibility, it is critical that the lessons of honesty and integrity are learned early.

O'Neill requires that all members of its community – students, faculty, and staff – treat others with an attitude of mutual respect both in the classroom and during all academic and nonacademic activities outside the classroom. A student is expected to show respect through behavior that promotes conditions in which all students can learn without interruption or distraction. These behaviors foster an appropriate atmosphere inside and outside the classroom:

- Students are expected to attend class regularly and to be prepared for class.
- Students must be punctual in their arrival to class and be present and attentive for the duration of the class. Eating, sleeping, reading the newspaper, doing work for another class, wandering in and out of the classroom, and packing up or leaving class early are not civil or professional behaviors.
- Students must abide by the course policy regarding use of electronic devices in the classroom.
- Students must responsibly participate in class activities and during team meetings.

¹ These expectations are excerpted from the O'Neill School Honor Code which can be found at:

- Students must address faculty members, other students, and others appropriately and with respect, whether in person, in writing, or in electronic communications.
- Students must show tolerance and respect for diverse nationalities, religions, races, sexual orientations, and physical abilities.
- Students must not destroy or deface classroom property nor leave litter in the classroom.

Additional information for students

Counseling and Psychological Services

For information about services offered to students by CAPS:
<http://healthcenter.indiana.edu/counseling/index.shtml>.

Religious Observation

In accordance with the Office of the Dean of Faculties, any student who wishes to receive an excused absence from class must submit a request form available from the Dean of Faculties for each day to be absent. This form must be presented to the course instructor by the end of the second week of this semester. A separate form must be submitted for each day. The instructor will fill in the bottom section of the form and then return the original to the student. Information about the policy on religious observation can be found at the following website: <https://policies.iu.edu/policies/aca-59-accommodation-religious-observances/index.html>.

Disability Services for Students

Securing accommodations for a student with disabilities is a responsibility shared by the student, the instructor and the DSS Office. For information about support services or accommodations available to students with disabilities, and for the procedures to be followed by students and instructors: <https://studentaffairs.indiana.edu/student-support/disability-services/index.html>

Sexual Harassment

As your instructor, one of my responsibilities is to help create a safe learning environment on our campus. Title IX and our own Sexual Misconduct policy prohibit sexual misconduct. If you have experienced sexual misconduct, or know someone who has, the University can help.

If you are seeking help and would like to talk to someone confidentially, you can make an appointment with:

- i. The Sexual Assault Crisis Service (SACS) at 812-855-8900
- ii. Counseling and Psychological Services (CAPS) at 812-855-5711
- iii. Confidential Victim Advocates (CVA) at 812-856-2469
- iv. IU Health Center at 812-855-4011

For more information about available resources:

<http://stopsexualviolence.iu.edu/help/index.html>. It is also important to know that federal regulations and University policy require me to promptly convey any information about potential sexual misconduct known to me to our campus' Deputy Title IX Coordinator or IU's Title IX Coordinator. In that event, they will work with a small number of others on campus to ensure that appropriate measures are taken and resources are made available to the student who may have been harmed. Protecting a student's privacy is of utmost concern, and all involved will only share information with those that need to know to ensure the University can respond and assist. I encourage you to visit <http://stopsexualviolence.iu.edu/help/index.html> to learn more.

Celebrating Diversity at IU:

Asian Culture Center

Address: 807 East Tenth Street, Bloomington, IN 47408

Phone: 812-856-5361

Email: acc@indiana.edu

Website: <https://asianresource.indiana.edu/index.html>

First Nations Educational & Cultural Center

Address: 712 E 8th St., Bloomington, IN 47408

Phone: 812-855-4814

Email: fnecc@indiana.edu

Website: <https://firstnations.indiana.edu/contact/index.html>

LGBTQ+ Culture Center

Address: 705 E 7th St., Bloomington, Indiana 47408

Phone: 812-855-4252

Email: gbltserv@indiana.edu

Website: <https://lgbtq.indiana.edu/contact/index.html>

La Casa Latino Culture Center

Address: 715 E 7th St., Bloomington IN, 47408

Phone: 812-855-0174

Email: lacasa@indiana.edu

Website: <https://lacasa.indiana.edu/>

Neal Marshall Black Culture Center

Address: 275 N Jordan Ave Bloomington, Indiana 47405

Phone: 812-855-9271

Email: nmgrad@indiana.edu

Website: <https://blackculture.indiana.edu/index.html>