



S516: Planning for Climate Change and Resilient, Urban Communities

Instructors (Office hours by appointment)

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Class Schedule

May 8-19 M-F (in-person): 9:30-11:30 a.m./ 1:00-3:00 p.m. Room PV A221

Course Description

This in-person course introduces the scientific basis, tools and processes for urban responses to climate change. It includes strategies and technological solutions for assessing greenhouse-gas emissions, social vulnerability and resilience needs at a community-scale, along with communication and engagement strategies or approaches for building support for climate goals. The two-week course will combine in-class sessions with faculty and guest speakers, along with group work. Students will be divided into teams and assigned to an Indiana community attempting to make climate progress via IU's Environmental Resilience Institute. The culminating group projects will be to produce a social vulnerability assessment of a Indiana local government which is seeking to improve its community resilience and a public-facing document/strategy on how to communicate climate goals to the public and policymakers.

Learning Outcomes

- Understand the concepts of climate resilience and vulnerability, the planning cycle and strategies for urban climate resilience.
- Recognize climate change impacts in developing and developed cities and the linkages of climate change with development goals and resilience.
- Acquire skills to characterize the different ways cities are mitigating their exposure to climate change or adapting to its impacts.
- Practice the main components of planning for climate change through targeted exercises on their respective city contexts.
- Identify the vulnerable sectors in a given urban context; identify, evaluate and prioritize mitigation and adaptation actions within a local climate change action planning framework.
- Assess the potential for green infrastructure investments within communities, in accordance with the local climate planning framework.
- Gain insight into the roles and motivations for key stakeholders and techniques to communicate effectively in writing and in person with stakeholders.

Textbook

There is no textbook for this course; all assigned readings will be provided via Canvas.

Class Format

Morning Session (9:30 am-11:30 am): Dr. Deslatte introduces a planning topic including background, trends, available technologies, challenges and possible solutions through in-person lectures, with a portion of the morning session devoted to discussion and group break-out sessions on the plan evaluation product.

Afternoon Session (1 pm-3 pm): Instructor Burgins follows up on the daily topics with a focus on practice, capacity-building and barriers. On several days, guest speakers will be brought into synchronous sessions for Q&A with students.

Grade Breakdown

Participation	15%
Daily Check-ins	10%
Exercises (team)	15%
Social Vulnerability Report (team)	25%
Climate Strategy Memo	20%
Study Presentation (team)	15%

Participation: Just like it sounds. We are going to be in a small and fast-moving boat together, and everyone has to row. Taking part in the live discussions is important, and there will also be three discussion forums – these will be for posting observations and critiques of specific planning criteria you are identifying in the plan evaluation. Posts in these forums will be used to drive discussion in class, so this is not a ‘throw-away’ assignment.

Daily Check-ins: We’ll have reading assigned on most nights, and a very brief quiz each morning that covers those readings. These check-ins will alternate between morning and afternoon sessions, but the assignment will be made clear in the To-Do List for each day.

Exercises (Team): This is where you get to test your new skills and tools. Your group will be given a detailed scenario and then a problem to solve.

Climate Vulnerability Report (Team): Many tools are being deployed to help communities identify where social vulnerabilities and disadvantages are spatially distributed across communities. Teams will be assigned to a community which has previously conducted the ERI’s Hoosier Resilience Readiness Assessment, which details climate readiness, and tasked with assessing how key metrics of social vulnerability relate to its readiness. The report will summarize where vulnerabilities and readiness gaps exist.

Strategy Memo (Team): This is the public-facing document where your team will recommend to the city (client) how to proceed with the inventory. Your team will be assigned to work with a representative from an Indiana community.

Presentation (Team): Your 10 minutes to shine during our last class together. The teams should spend those precious minutes explaining to rationale for their recommendations.

Academic Integrity

You know the drill. No form of academic dishonesty will be tolerated. This course requires individual integrity and professionalism from all students. If academic dishonesty is proven, you will receive a grade of zero for the work; repeat offense is grounds for failure in the course. A website defining plagiarism, with examples of acceptable and unacceptable ways to give credit for the ideas and words of others, and a separate self-test is available online. You are responsible for understanding the concept of plagiarism and for avoiding it at all times. Plagiarism is not acceptable in group or individual work.

Main plagiarism web site: <http://www.indiana.edu/~istd/>

Self-test: <http://www.indiana.edu/~tedfrick/plagiarism/item1.html>

Course Grades

The syllabus lists the minimum number of points needed over the course of the semester to earn a specific letter grade. ***This minimum number of points is an absolute threshold: a student either crosses the threshold into the next highest grade or stays at the lower grade (regardless of how close he or she is to that next higher grade).***

The instructors will respond with a courteous “no,” to any requests to move someone to a higher grade at the end of the semester because you are “*really, really close*” to that higher grade. Changes like these compromise the integrity of everyone’s grade, and force the instructor to draw inconsistent, unfair, and sometimes arbitrary lines about what is “good enough.”

Student Support

Whatever may have happened, please remember that the Health Services folks have people whose primary job is helping students survive such problems, and your professors are aware that these things can happen. We try to be flexible and helpful about disruptions, although we will want a justification (without personal details) for doing so. If the disruption continues for any substantial length of time, remember that the university allows us to grant incompletes so that students can complete work when their semesters are interrupted. But bear in mind that you must request an incomplete before your grades have gone over the edge, which means communicating with us in the midst of the chaos.

It's easier to help if we know something is going on. Please try to be in touch as soon as you can - it makes it easier for all of us in the long run, even if it is difficult in the short run to bring yourself to talk about it. You don't owe us the details – just a message that life has become difficult or complex and some idea of what kind of timeframe you think might be involved will help us to help you best.

Counseling and Psychological Services (CAPS)

For information about services offered to students by the **Counselor in Residence**, visit the [CAPS website](#).

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:

<http://vpfaa.indiana.edu/policies/bloomington/instructional-responsibilities/religious-observances.shtml>.

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: [Get Help: Student Support: Division of Student Affairs: Indiana University Bloomington](#).

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.

Commitment to Diversity: Find your home and community 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: glbtserv@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>

Fire and tornado procedures

In case of fire, unless otherwise directed, exit A221 towards 10th Street using the front entrance of the graduate wing. In case of tornado, the inside corridors on the second floor are safe places.

Daily Schedule

Class	Theme	Topic	Learning Objectives	Before Class
Day 1a	GHG Mitigation	Discussion: An Overview of Climate Change and Local Government Planning Responses; IJIA and IRA legislation and planning requirements	Scientific, policy bases for urban response to climate change; delineation between high- and low-capacity cities and policy responses.	Read: Hughes Deslatte-2023- Sustainability in Cities Merzdorf et al -2019-Heated Discussion: Strategies for Communicating Climate Change
Day 1b		Discussion: Overview/ The Examined Life Speaker: Grayson Hart		Skim: ERI Readiness Assessments for communities; WH, EPA, CDC, screening tools. Daily Check-In 1 Participation Forum 1 Opens
Day 2a		Discussion: GHG Emissions Inventories	Municipal/community contributions to GHG footprint; Principles and tools for climate planning; scoping.	Read: Arioli-2020 -- ‘Evolution of city scale GHG inventory methods’ article in Canvas. Read: Wiedmann-2020 -- ‘Three-scope carbon emission inventories of global cities’ article on Canvas.
Day 2b		Discussion: Barriers, Obstacles & Challenges – What’s the Difference? Speaker: Brian Wanbaugh		Skim: ICLEI – ‘U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions.’ Chapters 1-4. Daily Check-In 2
Day 3a	Social Vulnerability and Climate Action Plans	Discussion: Social Vulnerability Assessments	Understanding the roots of Environmental Justice; strengths and weaknesses of existing tools for mitigation planning.	Read: Berke-2023- Equity Policies and Social Vulnerability in Six Coastal Cities. Skim: WRI article “CEQ’s Climate and Economic Justice Screening Tool Needs to Consider How Burdens Add Up” on Canvas.
Day 3b		Discussion: Getting Heard Momentum/ Social Capital/ Income Inequality		Daily Check-In 3
Day 4a		Discussion: Climate Action Planning (Climate Change, Health and Co-	Linking emission inventories, vulnerability	Read: Meerow.Woodruff-2020- APA-‘Seven Principles of Strong

		Benefits/Stakeholder Engagement/Communication) Speaker:	assessments, and CAPs; need for political, technical and fiscal capacity	Climate Change Planning' article on Canvas. Skim: Woodruff-2018-Plan Codebook.
Day 4b		Discussion: The Still-Powerful Pen Policy Memo/ Who's Kicking Who? Speaker: Savannah Sullivan		Daily Check-In 4
Day 5a	Adaptation, Resilience and Equity	Discussion: An Overview of Managing Risks of Extreme Events, Disasters and Adaptation to Climate Change: Spatial/Temporal Changes in Social Vulnerability	Nexus between natural hazards, pop. density & social vulnerability; U.S. regions of concentration.	Read: Hughes 2020 'Just climate change adaptation' article on Canvas. Skim: Woodruff-Stults-2016 -- 'Little Implementation Guidance in US Adaptation Plans' article.
Day 5b		Discussion: Planning Strategies for Uncertainty Indiana stats/ Introducing Measures/		Cleveland Racial Equity Tool; CDC SVI tool. Daily Check-In 5 Participation Forum 2 Opens
Day 6a		Discussion: Resilience	Adaptation vs. resilience; benefits of ecological and social diversity, redundancy.	Read: Woodruff-2018 – 'Adaptation to Resilience Planning: Alternative Pathways to Prepare for Climate Change' article on Canvas, including Appendix B (the codebook). Skim: Woodruff et al-2021- 'Urban resilience: Analyzing the policies of U.S. cities.'
Day 6b		Discussion: Decision Making Analysis for Climate Change Speaker: Lisa Abbott		
Day 7a		Discussion: Social Inequality: Closing the Climate Gap	Disproportionate impacts of CC on communities of color/low SES; regional vs. targeted policies.	Read: Meerow-2019 - 'Social equity in urban resilience planning' article on Canvas. Skim: 'Resilient Houston' Chapters 1-3, 5.
Day 7b		Selling Resilience Principals/ Data Visualization/		Daily Check-In 7

Day 8a	Green Infrastructure and Gentrification	Discussion: Urban Heat and Storm water; positive and negative impacts of GSI on displacement of residents.	Challenges and opportunities for managing water and heat (GI Design approach to emphasize trees, green roofs/facades, open space).	Read: Shokry-2022-‘They didn’t see it coming’ green resilience planning and vulnerability to future climate gentrification article. Meerow-2020- ‘Politics of Green Infrastructure in NYC’ article.
Day 8b		Discussion: Multi-level Governance for Climate Change Speaker: Matt Flaherty		Skim: Anguelovski-2022-Green Gentrification in European and North American cities 2018 Gary, IN, Green Infrastructure Plan Daily Check-In 8 Participation Forum 3 Opens
Day 9a	Resource Systems and Feedback	Discussion: Sea Level Rise, Resource Systems and Transitions	Principles for adapting land use, resource use and infrastructure for climate change.	Read: Anderies et al -2013- ‘Aligning Key Concepts for Global Change Policy: Robustness, Resilience, and Sustainability’ article.
Day 9b		Speaker: Peter Iversen		Skim: TBD. Daily Check-In 9
Day 10	Presentations by students			