

LAW-903-50-4232

PLAN-680-50-4232

SUST-695-50-4232

UPA-680-50-4232

Land and Ecosystem Conservation

Syllabus

Professor Tony Arnold

Spring 2023

Complete and Detailed Version of the Syllabus: Draft 12.10.22

This Syllabus is a detailed, useful, essential guide to the Land and Ecosystem Conservation course. Please read it before the semester begins, download it, and refer to it regularly throughout the semester. Please use it to be successful in the course and know what the expectations are.

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I. Overview

This is an advanced interdisciplinary course in applying the methods of adaptive planning, social-ecological resilience, and resilience justice to land and ecosystem conservation. It's a fully online asynchronous course, which means that we will NOT have regularly scheduled online discussion sessions. Everything is remote. Any online meetings can be scheduled at mutually agreeable times. This course spans the period of January 2, 2023 to April 18, 2023.

The course is cross-listed in LAW, PLAN, SUST, and UPA. The course will be composed of graduate-level students in law, planning, sustainability, and other disciplines.

In this online, asynchronous, self-paced (with deadlines) course, you will learn the principles and methods of adaptive planning to improve the resilience and equity (justice, fairness) of systems, organizations, and communities, and you will develop the skills of planning process assessment, design, and reform. The subject matter is planning for land and ecosystem conservation. The specific methods and theories are adaptive planning, social-ecological resilience, and resilience justice.

The main end work product will be for each individual student to write a proposal or memo to land/ecosystem planning partners (e.g., government agencies, environmental groups, community groups) about ways to incorporate adaptive planning, social-ecological resilience, and resilience justice into planning for:

- a) the Mill Creek restoration and greenway project in southwest Louisville, KY, or
- b) conservation and management of the Caja del Rio landscape near Santa Fe, NM.

You will be assigned to work on one of these two based on a lottery system; one-half of the students in the class will work on Mill Creek planning, and one-half will work on Caja planning.

The workload for this class is rather substantial. Much of the work will be front-loaded into the first 10 weeks of the Spring semester, and there will be 4-5 major

sets of learning tasks each week. Every week for the first 10 weeks of the Spring semester, you will be assigned:

- a) substantial interdisciplinary readings to read,
- b) video recordings of lectures with PPTs to watch, and
- c) a quiz to test your mastery of the week's material.

The ten total weekly quizzes will add up to 20% of your course grade.

In 5 of the first 10 weeks, you will be expected to speak about the concepts you're learning and/or your planning project (Mill Creek or Caja del Rio) using audio and video through:

- a) two scheduled online meetings with Professor Arnold,
- b) a scheduled online meeting with your classmates and the planning partners in your ecosystem community, or
- c) two audiovisual recordings on FLIP, a Microsoft video platform.

These meetings and videos will count for 20% of your course grade.

In 3 of the first 10 weeks, you will be expected to research, write, and submit a draft of approximately one-third of your final proposal for land/ecosystem planning for Mill Creek or the Caja, in order to receive written feedback from Professor Arnold. These will be spaced out and interspersed with your meetings and FLIP videos. Your 3 drafts, added together, will count for 20% of your course grade.

In the final 4 weeks of the semester, you will build on your drafts with revisions and additional research and writing of your final planning proposal (i.e., make improvements based on feedback and additional work). If you've done more and better work during the first 10 weeks of the semester, the last 4 weeks should be smooth sailing. Your final planning proposal, which you will submit by the end of the semester, will count for 40% of your course grade. You will be assessed on your integration of adaptive planning processes, social-ecological resilience standards, and resilience-justice analyses and frameworks into land and ecosystem conservation planning for the Mill Creek restoration and greenway or management of the Caja del Rio.

For Law students, this course will provide 3 credits of experiential learning towards the J.D. graduation requirement of experiential learning (but NOT live-client experiential learning, because your total interaction with our planning

partners won't be enough to meet academic standards for live-client learning). This is a distance-ed class that counts towards the Law School total cap for distance-ed courses.

We will study the legal frameworks in which this planning occurs, but this is a highly interdisciplinary course with a lot of focus on planning, governance-system design, and land/ecosystem management.

Students who don't have any prior coursework in the environmental, land use, natural resources, or planning fields will be able to master the material but will likely have to work harder to do so. The more introductory or foundational courses in these fields have been offered over the past 3 semesters, and it's now time in the rotation of courses to offer this more advanced course.

The course will be offered through the University of Louisville online platform Blackboard, which will make use of tools, such as Panopto for recorded lectures, instructions and assignments, quizzes, and class email functions. Meetings with Professor Arnold, classmates, and planning partners might be held on Microsoft Teams or Zoom.

This is a complete and detailed version of the course Syllabus. Please download, read, and use this more complete and detailed version of the course Syllabus. It replaces a short and early version of the course Syllabus posted on Blackboard in early December 2022 to meet SACS accreditation and University requirements so that the 4 sections of the course could be merged into one on Blackboard and opened early, before the University closed for Winter Break. This version of the Syllabus includes photographs depicting some of the subject matter of the course, showing the interrelationships between nature and people.

Finally, this course will be taught using "A Humanizing Pedagogy," which is a set of principles that Professor Arnold developed to counter the potential for dehumanization that exists in contemporary society, our legal and governance institutions and professions, higher education, and online education. It builds on Paulo Freire's *Pedagogy of the Oppressed*. The principles of A Humanizing Pedagogy are:

1. Teaching and learning are human-centered. Learning is a fundamentally and authentically human experience.

2. Teaching is learner-centered, characterized by empathy, care, and commitment to the well-being, dignity, and human development of each and every learner.
3. Teaching and learning are inclusive, supportive, and collaborative. Teaching and learning center the experiences of the marginalized and oppressed as parts of co-learning processes. A central message is that we are not alone.
4. Teaching and learning are justice-centered, including anti-oppression and anti-racism. Learners are enabled and empowered to seek justice in society. Learners consider how any of us can be both oppressor and oppressed.
5. Learners are enabled and empowered to see humans at the center of the work and life experiences for which the learners are preparing, such as human-centered lawyering.
6. Learning is active, experiential, community-engaged, and contextualized.
7. Teaching and learning are adaptive.
8. Mentoring of learners meets their core needs for human engagement with their educational, professional, and life journeys.

II. Student Learning Outcomes

By the end of the course, students will be able to:

1. Define what an ecosystem is.
2. List several of the most significant types of ecosystems and their functions.
3. Recognize the relevance of ecosystems to land use, management, governance, and planning, and vice-versa.
4. Apply the multiple goals of land and ecosystem conservation to planning and policy formulation to govern land and ecosystems.
5. Recognize and consider legal institutions and issues governing land and ecosystems, including planning processes and public policies for land and ecosystems.
6. List the core features/characteristics of adaptive planning.
7. Define resilience and the types of resilience.
8. Compare and contrast adaptive planning with conventional planning.
9. Compare and contrast adaptive planning with adaptive management.
10. Reflect on at least two examples of resilience injustice and at least three examples of adaptive planning from real-world governance systems, organizations, and/or communities.
11. Recognize and select problems or issues that adaptive planning processes would aid in addressing.
12. Identify the threats to systemic, organizational, or community resilience in the participant's governance system, organization, and/or community.
13. Assess whether planning processes are adaptive.
14. Define resilience justice.
15. Identify the features of systems that improve resilience justice among marginalized and oppressed communities and groups.
16. Identify the sources of unequal vulnerabilities for marginalized and oppressed communities and groups.
17. Select and integrate analytical tools and policy reform tools (including goals, strategies, methods, and metrics) that promote resilience justice, adaptive capacity-building, and reduced vulnerabilities for marginalized and oppressed communities and groups.
18. Prepare a written memo or proposal for the design (or re-design) and implementation of adaptive planning processes for governance systems, organizations, and/or communities to promote or achieve systemic resilience and resilience justice.

19. Self-assess one's own proposed adaptive planning processes and plan contents for:
 - a. the core features/characteristics of adaptive planning;
 - b. the seven major mistakes to avoid in adaptive planning;
 - c. relevant and appropriate resilience goals, strategies, methods, and metrics; and
 - d. the features of resilience justice.

III. Course Materials

There are no books or other materials to purchase for this course. All assigned reading materials will be materials that are freely available online and/or in the University Library system. In addition to assigned readings for the course, students will also be expected to conduct research into the specific land/ecosystem planning process that they have been assigned to address (i.e., Mill Creek Greenway OR Caja del Rio). The assigned readings are listed in Section VI of this Syllabus.

IV. Evaluation/Grading

Your grade is based on the following:

- 20% weekly assessment quizzes based on lectures and readings: 10 total quizzes, 1,000 total points;
- 20% audio-visual interactive engagement with others in online meetings and/or FLIP videos: 5 total meetings and/or videos, 1,000 total points;
- 20% drafts of your proposal/memo for adaptive planning, social-ecological resilience, and resilience justice content and processes for planning for conservation of the Mill Creek Greenway or the Caja del Rio (as assigned): 3 total drafts, 1,000 total points;
- 40% final proposal/memo for adaptive planning, social-ecological resilience, and resilience justice content and processes for planning for conservation of the Mill Creek Greenway or the Caja del Rio (as assigned), 2,000 total points.

The final grading rubric for your proposal/memo is provided starting on the next page. Portions of this rubric will be used for each of the three drafts.

Proposal/Memo Grading Rubric

Performance Standard	None	A little	Some	Much
<u>Overall</u> : Proposal/Memo is professional, human-centered, and culturally competent.	0	20	40	70
<u>Overall</u> : Proposal/Memo is well-written and easy to understand and follow.	0	20	40	70
<u>Overall</u> : Proposal/Memo is thorough, accurate, and free from typos, mistakes, and excessive informalities. Proposal/Memo cites sources.	0	20	40	70
<u>Planning Problem</u> : describes the planning problem(s), issues, and context.	0	20	40	70
<u>Planning Problem</u> : describes the social-ecological-institutional systems shaping the need for land and ecosystem conservation and/or restoration.	0	20	40	70
<u>Planning Problem</u> : identifies potential stresses, shocks, disturbances, and changes to the applicable social-ecological-institutional systems.	0	20	40	70
<u>Planning Problem</u> : discusses the purposes of the proposal/memo, describes social-ecological resilience, adaptive planning, and resilience justice, and makes the case for why these 3 features are needed for this land and ecosystem conservation and/or restoration problem.	0	30	50	80
Proposes <u>Plan Content</u> that includes features that build Characteristics of Resilient Systems.	0	40	60	90
Proposes <u>Plan Content</u> to include goals to advance social-ecological resilience in the relevant systems.	0	30	50	80

Proposes <u>Plan Content</u> to include strategies to advance social-ecological resilience in the relevant systems.	0	30	50	80
Proposes <u>Plan Content</u> to include actions and methods to advance social-ecological resilience in the relevant systems.	0	30	50	80
Proposes <u>Plan Content</u> to include metrics, monitoring information, and feedbacks to advance social-ecological resilience in the relevant systems.	0	30	50	80
Proposes <u>Plan Content</u> that addresses stresses, shocks, disturbances, and changes in relevant systems.	0	40	60	90
<u>Process</u> : describes a new or redesigned process that adopts an adaptive planning process, identifies decision makers, and participants, and defines adaptive planning.	0	30	50	80
Planning <u>Process</u> includes: 1) Scoping and Process Creation 2) Study and Analysis 3) Ongoing Monitoring 4) Goal Setting 5) Plan Formulation 6) Plan Implementation 7) Evaluation 8) Learning 9) Feedback Loops: Iterative Revision.	0	30	50	80
<u>Process</u> : describes reasons for new or redesigned adaptive planning process (why).	0	30	50	80
<u>Process</u> incorporates Flexibility.	0	5	10	20
<u>Process</u> incorporates Continuity and Iterations.	0	5	10	20
<u>Process</u> incorporates Process Orientation.	0	5	10	20
<u>Process</u> incorporates Adopting Multiple Goals, Strategies, and Actions.	0	5	10	20
<u>Process</u> incorporates Holistic Design.	0	5	10	20

<u>Process</u> incorporates Acknowledgment of and Adaptation to Provisional Knowledge.	0	5	10	20
<u>Process</u> incorporates Participation and Inclusion.	0	5	10	20
<u>Process</u> incorporates Decentralization.	0	5	10	20
<u>Process</u> incorporates Feedback Loops.	0	5	10	20
<u>Process</u> incorporates Inclusive Planning Methods.	0	10	20	40
<u>Process</u> incorporates Scenario Planning Methods.	0	10	20	40
<u>Planning Problem, Plan Content, and Processes</u> : Defines resilience justice and its features.	0	30	50	80
<u>Planning Problem</u> : Describes marginalized and oppressed communities, their histories, conditions, and capacities, and the stresses, shocks, disturbances, and changes to which they are especially vulnerable.	0	30	50	80
Proposes <u>Plan Content and Processes</u> that build the resilience and adaptive capacities of marginalized and oppressed communities and reduces their vulnerabilities.	0	40	60	90
Proposes <u>Plan Content and Processes</u> to include goals to advance resilience justice in the relevant systems.	0	10	20	40
Proposes <u>Plan Content and Processes</u> to include strategies to advance resilience justice in the relevant systems.	0	10	20	40
Proposes <u>Plan Content and Processes</u> to include actions and methods to advance resilience justice in the relevant systems.	0	10	20	40
Proposes <u>Plan Content and Processes</u> to include metrics, monitoring information, and feedbacks to advance resilience justice in the relevant systems.	0	10	20	40
Proposes <u>Plan Content and Processes</u> that include and empower marginalized and	0	40	60	90

oppressed communities, including co-governance and/or co-management arrangements.				
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V. Office Hours and Contact Information

Due to the online nature of the course and students' needs or preferences for distance education, Professor Arnold will schedule online meetings with students on Teams or Zoom on an as-requested basis on Mondays, Wednesdays, or Fridays, 10:00 a.m. to 5:00 p.m. or on Mondays, Tuesdays, Wednesdays, or Thursdays at 9:00 to 10:00 p.m. Professor Arnold's email address is tony.arnold@louisville.edu and his cell phone number is (502) 216-5534.

Personal Pronouns: I value and respect the pronouns that students and colleagues choose to share, and I'm committed to using the pronouns that any of you voluntarily self-identify. I have chosen not to put my own personal pronouns in my email signature, because over the years I've known a number of people, including students, who didn't want to share their personal pronouns for a number of different reasons, including ambivalence about their gender identity. I don't believe in pressuring anyone to make commitments or reveal choices that they aren't ready to self-identify. Even though I don't feel ambivalent about my own gender identity, I have chosen not to advertise my pronouns in order to communicate that not revealing one's pronouns is as equally valued and respected as revealing one's pronouns. I feel the same about any aspect of your identity that you don't feel comfortable sharing (except the basics that are necessary for the functioning of the class – your name, degree program, etc.).

VI. Topics and Readings

1. Social-Ecological Resilience & Systems

Stephen R. Carpenter, Kenneth J. Arrow, Scott Barrett, ReINETTE Biggs, William A. Brock, Anne-Sophie Crépin, Gustav Engström, Carl Folke, Terry P. Hughes, Nils Kautsky, Chuan-Zhong Li, Geoffrey McCarney, Kyle Meng, Karl-Göran Mäler, Stephen Polasky, Marten Scheffer, Jason Shogren, Thomas Sterner, Jeffrey R. Vincent, Brian Walker, Anastasios Xepapadeas, and Aart de Zeeuw, **General Resilience to Cope with Extreme Events**, 4 *Sustainability* 3248-3259 (2012), freely downloadable at <https://www.mdpi.com/2071-1050/4/12/3248>.

Robin Kundis Craig, **'Stationarity is Dead' - Long Live Transformation: Five Principles for Climate Change Adaptation Law**, 34(1) *Harvard Environmental Law Review* 9-75 (2010), freely downloadable at <https://ssrn.com/abstract=1357766>.

2. Adaptive Institutions

Craig Anthony (Tony) Arnold, Hannah Gosnell, Melinda H. Benson. and Robin K. Craig, **Cross-interdisciplinary insights into adaptive governance and resilience**, 22(4) *Ecology and Society* 14 (18 pp.) (2017), freely downloadable at https://www.researchgate.net/profile/Hannah-Gosnell/publication/320917920_Cross-interdisciplinary_insights_into_adaptive_governance_and_resilience/links/5a601d44458515b4377b906d/Cross-interdisciplinary-insights-into-adaptive-governance-and-resilience.pdf.

Craig Anthony (Tony) Arnold, **Environmental Law, Episode IV: A New Hope? Can Environmental Law Adapt for Resilient Communities and Ecosystems?**, 21 *Journal of Environmental & Sustainability Law* 1-46 (2015), freely downloadable at: <https://ssrn.com/abstract=2489450>.

3. Landscapes, Ecosystems, & Social-Ecological Resilience

Craig Anthony (Tony) Arnold, Olivia Odom Green, Daniel DeCaro, Alexandra Chase, and Jennifer-Grace Ewa, **The Social-Ecological Resilience of an Eastern Urban-Suburban Watershed: The Anacostia River Basin**, 51(1) *Idaho Law Review* 29-90 (2014), freely downloadable at: <https://ssrn.com/abstract=2584968>.

Robert L. Glicksman, **Management of Federally Owned Grasslands in the Climate Change Era**, 26 *Kansas Journal of Law and Public Policy* 324-358 (2017), freely downloadable at <https://lawjournal.ku.edu/wp-content/uploads/2020/08/Glicksman-V26I3.pdf>.

Zanariah Jasmani, Hans Peter Ravn, and Cecil C. Konijnendijk van den Bosch, **Introducing a method for social-ecological assessment of small urban parks**, 1(2) *Environment-Behaviour Proceedings Journal* 123-131 (2016), freely downloadable at https://www.researchgate.net/profile/Cecil-Konijnendijk/publication/316535592_Introducing_a_Method_for_Social-ecological_Assessment_of_Small_Urban_Parks/links/59091b2b0f7e9b1d0814702e/Introducing-a-Method-for-Social-ecological-Assessment-of-Small-Urban-Parks.pdf.

Frederik JW Van Oudenhoven, Dunja Mijatović, and Pablo B. Eyzaguirre, **Social-ecological indicators of resilience in agrarian and natural landscapes**, *Management of Environmental Quality: An International Journal* (2011) (31 pp.), freely downloadable at https://www.researchgate.net/profile/Frederik-Van-Oudenhoven/publication/242195200_Social-ecological_indicators_of_resilience_in_agrarian_and_natural_landscapes/links/553686350cf268fd00186eb6/Social-ecological-indicators-of-resilience-in-agrarian-and-natural-landscapes.pdf.

4. Mill Creek Watershed Restoration & Greenway; Caja del Rio Plateau Conservation & Management

Readings will be on Blackboard Assignments. All students will read about BOTH examples of land/ecosystem conservation and planning, regardless of which one is the topic of their assigned memo/proposal.

5. Planning: Conventional v. Adaptive

Sadahisa Kato and Jack Ahern, **'Learning by doing': adaptive planning as a strategy to address uncertainty in planning**, 51(4) *Journal of Environmental Planning and Management* 543–559 (2008), freely downloadable at

https://www.researchgate.net/publication/24084619_%27Learning_by_doing%27_Adaptive_planning_as_a_strategy_to_address_uncertainty_in_planning.

Craig Anthony (Tony) Arnold, **Adaptive Watershed Planning and Climate Change**, 5(2) *Environmental and Energy Law and Policy Journal* 417-488 (2010), freely downloadable at: <https://ssrn.com/abstract=1712027>.

6. Designing & Implementing Adaptive Planning

Lara Whitely Binder, **Preparing for Climate Change in the U.S. Pacific Northwest**, 15 *Hastings West Northwest Journal of Environmental Law & Policy* 183-195 (2009), freely downloadable at https://repository.uchastings.edu/cgi/viewcontent.cgi?article=1194&context=hastings_environmental_law_journal.

Jean-Marie Buijsa, Luuk Boelensb, Helge Bormannc, Britta Restemeyerd, Teun Terpstra, and Tom van der Voorna, **Adaptive planning for flood resilient areas: dealing with complexity in decision-making about multilayered flood risk management**, 19 *A+ BE| Architecture and the Built Environment* (23 pp.) (2016), freely downloadable at https://www.researchgate.net/profile/Tom-Van-Der-Voorn/publication/324834933_Adaptive_planning_for_flood_resilient_areas_dealing_with_complexity_in_decision-making_about_multilayered_flood_risk_management/links/5ae73b4e458515760ac2b256/Adaptive-planning-for-flood-resilient-areas-dealing-with-complexity-in-decision-making-about-multilayered-flood-risk-management.pdf.

7. Scenario Planning; Additional Insights re: Adaptive Planning

Stephen R. Carpenter and Adena R. Rissman, **Scenarios and Decisionmaking for Complex Environmental Systems**, in D. N. Bengston, editor. *Environmental futures research: experiences, approaches, and opportunities*. Gen. Tech. Rep. NRS-P-107. U.S. Department of Agriculture, Forest Service, Northern Research Station, Newtown Square, Pennsylvania, USA, pp. 37-43 (2012), freely downloadable at https://www.researchgate.net/profile/David-Bengston/publication/258437516_Environmental_futures_research_experiences_approaches_and_opportunities_Gen_Tech_Rep_NRS-P-

[107 Newtown Square PA US Department of Agriculture Forest Service Northern Research Station 79 p/links/00b7d52838be8b40d2000000/Environmental-futures-research-experiences-approaches-and-opportunities-Gen-Tech-Rep-NRS-P-107-Newtown-Square-PA-US-Department-of-Agriculture-Forest-Service-Northern-Research-Station-79-p.pdf#page=43.](https://www.researchgate.net/publication/257068454_Scenarios_for_vulnerability_Opportunities_and_constraints_in_the_context_of_climate_change_and_disaster_risk/links/58101d4f08aef2ef97afee6c/Scenarios-for-vulnerability-Opportunities-and-constraints-in-the-context-of-climate-change-and-disaster-risk.pdf#page=43)

Joern Birkmann, Susan L. Cutter, Dale S. Rothman, Torsten Welle, Matthias Garschagen, Bas van Ruijven, Brian O'Neill, Benjamin L. Preston, Stefan Kienberger, Omar D. Cardona, Tiodora Siagian, Deny Hidayati, Neysa Setiadi, Claudia R. Binder, Barry Hughes, and Roger Pulwarty, **Scenarios for vulnerability: opportunities and constraints in the context of climate change and disaster risk**, 133 *Climatic Change* 53-68 (2015), freely downloadable at https://www.researchgate.net/profile/Dale-Rothman/publication/257068454_Scenarios_for_vulnerability_Opportunities_and_constraints_in_the_context_of_climate_change_and_disaster_risk/links/58101d4f08aef2ef97afee6c/Scenarios-for-vulnerability-Opportunities-and-constraints-in-the-context-of-climate-change-and-disaster-risk.pdf.

8. Resilience Justice

Craig Anthony (Tony) Arnold, Frank Bencomo-Suarez, Pierce Stevenson, Elijah Beau Eisert, Henna Khan, Rachel Utz, and Rebecca Wells-Gonzalez, **Justice, Resilience, and Disruptive Histories: A South Florida Case Study**, 34 *Colorado Environmental Law Journal* ___ (forthcoming 2023) (43 pp.), freely downloadable at <http://ssrn.com/abstract=4304128>.

Craig Anthony (Tony) Arnold & Resilience Justice Project Researchers, **Resilience Justice and Community-Based Green and Blue Infrastructure**, 45(3) *William & Mary Environmental Law and Policy Review* 665-737 (2021), freely downloadable at: <https://ssrn.com/abstract=3799314>.

9. Integrating Resilience Justice into Adaptive Planning

Craig Anthony (Tony) Arnold & Resilience Justice Project Researchers, **Resilience Justice and Urban Water Planning**, 52(5) *Seton Hall Law*

Review 1399-1459 (2022), freely downloadable at: <https://ssrn.com/abstract=4167206>.

Craig Anthony (Tony) Arnold, Frank Bencomo-Suarez, Lauren Neal, Rachel Utz, Trinity Brown, Colin Shumate, & Rebecca Wells-Gonzalez, **Mill Creek Watershed Planning Environmental Justice and Resilience Justice Frameworks** (Resilience Justice Project, July 2022), available on Blackboard.

University of Louisville Resilience Justice Project, **Resilience Justice Variables**, available on Blackboard.

10. Inclusive Planning

Kathryn S. Quick and Martha S. Feldman. **Distinguishing participation and inclusion**, 31(3) *Journal of Planning Education and Research* 272-290 (2011), freely downloadable at https://www.researchgate.net/profile/Kathryn-Quick/publication/258154862_Distinguishing_Participation_and_Inclusion/links/53f75e00cf24a9236ceddce/Distinguishing-Participation-and-Inclusion.pdf.

Kevin K. Washburn, **Facilitating Tribal Co-Management of Federal Public Lands**, 2022 *Wisconsin Law Review* 263-328 (2022), freely downloadable at <https://wlr.law.wisc.edu/wp-content/uploads/sites/1263/2022/04/14-Washburn-Camera-Ready.pdf>.

C40 Cities and World Resources Institute, **Inclusive Planning: Executive Guide: How to tackle climate change and inequality jointly: practical resources and guidance for cities** (2019) (44 pp.), freely downloadable at https://www.c40knowledgehub.org/s/article/Inclusive-Planning-Executive-Guide?language=en_US.

VII. Guide to What You Need to Do and How to Do It

1. Time Management; Assignments and Tasks Generally.

- Plan the days and times each week when you will work on this course and block them in your schedule, just as if this were an in-person class or a job.
- Every week you will have 4-5 major sets of tasks that are due by 10:00 p.m. on Sunday evening; some sets have multiple tasks (e.g., multiple readings, multiple lectures); some tasks are large (e.g., drafting a planning memo/proposal).
- Having each week's tasks due all at the same time gives you quite a bit of flexibility about fitting the coursework into your weekly schedule.
- But you need to plan your time so that you have enough time to get everything done by the deadline. For example, you're not going to accomplish 10 hours of work by the deadline if you wait until 4:00 p.m. on Sunday to begin.
- If you have circumstances in life that impede your work in this class or make it impossible to meet one or more deadlines, reach out to Professor Arnold ASAP to discuss your situation and request accommodations. Your well-being is extremely important. Even though it can sometimes feel scary and personal to reveal that things aren't going well in your life, professional norms and expectations require that you ask for a deadline extension in advance (if at all possible), not just let the deadline pass and then offer an excuse. This is because clients, employers, colleagues, and the public are depending on you to do the work by the deadline. You don't need to provide details (e.g., diagnoses, family drama), but you need to give some idea of the nature and magnitude of the circumstances justifying an extension.
- Even if you receive an extension for a deadline, it will be important to develop a reasonable plan to make up the work as quickly as possible so that you don't fall farther and farther behind the class over the semester.
- It's not OK to make this course the lowest priority in your schedule, behind all your other classes, work commitments, extracurricular commitments, personal and family activities, etc.; it can be a temptation to do so just because it's an online asynchronous course.

2. Readings.

- All of the readings introduce and explain key concepts that you will need to master the course material and to use in your planning memo/proposal.
- Most to nearly all of the readings provide key tools – principles, processes, strategies, structures, factors, policies, actions, etc. – that you will need to master the course material and to use in your planning memo/proposal.
- Most of the readings include examples of key concepts and tools from land/ecosystem conservation and planning, and these examples are useful to understanding the concepts and tools and to applying them to the Mill Creek and Caja del Rio conservation and planning problems that you'll be addressing in your planning memo/proposal.
- Each week, one or more quiz questions will come from each reading, which means that you will need to do each reading to be able to get those questions correct.
- The readings come from a very wide range of disciplines and thus some of them may use terminology, concepts, and methodologies that may be new or different to you. However, all of them are accessible to a graduate-level audience of future professionals.
- Not everything in every reading is important to our learning and work. If you can't understand a reading until you learn more about terminology or concepts, you should do a general internet search (Wikipedia is totally OK for familiarizing yourself with previously unfamiliar terms and concepts) and/or contact Professor Arnold with your question(s).

3. Lectures.

- Watching all of the lectures each and every week is really, really important.
- Most of what you will need to master the course concepts and material, perform well on the quizzes, and analyze and write your planning memo/proposal (Mill Creek or Caja del Rio) will come from the lectures.
- A PDF copy of each PPT used in each lecture will be made available to you on Blackboard Assignments. There will NOT be a separate outline of the material in a Word or PDF document, because in this class the graphics are just as important as the words. You're not learning a bunch of legal rules for which a prepared outline is especially helpful.
- You may refer to your electronic PDF (or printed hard-copy) of each PPT when you watch each lecture and/or when you take the quiz. There are tools for taking notes in PDFs too, if you wish.

4. Quizzes.

- The weekly quizzes are meant to:
 - help you to master and understand the key course material;
 - prepare to apply the course material to your planning memo/proposal;
 - hold you accountable to doing all the readings and watching all the lectures (the temptation to disengage from and drift in online asynchronous courses can be strong if you aren't forced to demonstrate your mastery of the material regularly).
- Each weekly quiz consists of 10 multiple choice questions.
- Your performances on the quizzes count towards your course grade. This is NOT just for participation points.
- Every reasonable effort will be made to set up the quizzes to allow you unlimited time to complete each quiz BEFORE the deadline and to allow you to go back and change answers to questions that you've previously answered if you wish, before you press submit. You will NOT be able to take the quiz multiple times, though. All of this is based on the available Blackboard technology at the time.
- It will be your responsibility to press the submit button when you have finished answering all the quiz questions and are ready to submit your answers for grading and feedback. You MUST press submit before the scheduled deadline (10:00 p.m. Sunday evenings). You should make sure that your quiz answers were actually submitted and received on Blackboard.
- You are strongly encouraged to refer to (look at, consult) your readings, lectures, and PPTs (PDFs) when answering the quiz questions. This is NOT a test of your memory recall of the material. The quizzes are open-book, open-note.
- Each student is expected to take their own quizzes themselves and not give aid to others or receive aid from others. To give or receive unauthorized assistance or to share the answers to the quizzes with others constitutes academic dishonesty in violation of the Student Conduct Code and the Honor Code.

5. Meetings.

- The online Team or Zoom meeting with our planning partners for Mill Creek or Caja del Rio is meant to provide you with needed information and understanding about the planning issues and needs in those land/ecosystem conservation systems and to allow you to ask questions.
- The online Teams or Zoom meeting with our planning partners will be attended by all of the students who are assigned to work on that particular planning project and Professor Arnold, as well as officials from selected planning partners, such as the National Wildlife Federation or Louisville Metro Parks
- The online Teams or Zoom meeting with our planning partners will be on a day and time when the planning partners officials, the most students, and Professor Arnold can attend. It will be recorded, with transcription, so that those students who cannot attend on that day and time can still watch it.
- The two mandatory online (Teams) “office” meetings with Professor Arnold will be at mutually agreeable days/times. They will allow Professor Arnold to discuss useful feedback to you, and they give you opportunities to ask questions about the course in a conversation. They will also give an opportunity for Professor Arnold to check in with you generally – your well-being, the things you’re finding interesting, etc.
- You are welcome and encouraged to schedule more than 2 online meetings with Professor Arnold and/or exchange emails about the course, the material, feedback, etc. Even just brief online chit-chat conversation is most welcome. Don’t feel like you need to be navigating this course solo or thinking through the material (or even related topics) all on your own.

6. FLIP Video-recording.

- FLIP is an online video-recording platform by Microsoft. Our class will have its own FLIP site for which you will receive a link during the first week of class.
- You will record two different videos of yourself on FLIP – one to introduce yourself and share your interests in the course subject matter in Week 2, and the second to discuss your work on the Mill Creek or Caja del Rio planning projects and/or what you're getting out of the course up to that point in Week 8.
- The FLIP video recording allows you to share your views and perspectives in your own words.
- The FLIP video recording allows Professor Arnold and your classmates to see your face, hear your voice, and listen to your views and perspectives in your own words.
- FLIP has options to share photos and graphics, website links, video links, music, and other features to your postings.
- All students are encouraged, but not required, to watch your classmates' FLIP videos. Don't be an island, even though this is an online asynchronous course.

7. Memo or Proposal.

- You will write a planning memo or proposal for identified planning partners with your analyses and recommendations about how (and why) to integrate social-ecological resilience, adaptive planning, and resilience justice into:
 - planning for conservation and management of the Caja del Rio landscape in New Mexico; OR
 - planning for the restoration of Mill Creek and the creation and management of the Mill Creek Greenway in Louisville, Kentucky.
- At the time that this Syllabus is being prepared, our planning partners for the Caja del Rio are the National Wildlife Federation and Earth Keepers 360, but there might be other partners added, such as Pueblo Indian Tribes, federal government agencies, other agencies, and other environmental and community groups.
- At the time that this Syllabus is being prepared, our planning partners for the Mill Creek restoration and greenway are the Louisville Metro Parks Department and the organization Human Nature, but there might be other partners added, such as other state and local agencies and other environmental and community groups.
- You will be provided with a basic memo template and a basic proposal template, and you will choose which of the two templates you wish to use for your written work product. Both templates provide some very macro structure to your written work product.
- You will be expected to use most of the material, concepts, processes, methods, principles, and metrics that you will be learning about in this course. You will need to make robust and effective use of the readings, lectures, and PPTs in your memo/proposal.
- You are strongly encouraged to use the grading rubric (in Section IV of this Syllabus) to guide the content of your memo/proposal and to self-assess whether or not you've successfully included the content that is expected of you.
- You will learn about the planning issues and problems in the Caja del Rio and Mill Creek through assigned readings, lectures/PPTs, meeting online with the planning partners, and your own research. You should also reach out to Professor Arnold for guidance and feedback. You will need to include this information in your memo/proposal.

8. Asking Questions, Getting Help, and Interacting with Live People.

- Please ask questions.
- Please ask for help.
- Please share your ideas and thoughts.
- Please reach out to Professor Arnold (and your classmates too) to interact via online meetings, emails, etc. You are also most welcome to meet with Professor Arnold in person whenever he's at the Law School to teach his Property II class (Tuesday and Thursday afternoons/evenings), but please be sensitive to his need to meet with his Property II students too.
- You are most welcome to arrange in-person outdoors hiking, coffee, etc. with Professor Arnold (and any classmates or others who want to join us) on days/times when it's mutually convenient AND the weather is OK for outdoors activities. Just reach out by email.

VIII. Assignments, Tasks, Deadlines, and Dates

Completed (use this column to track completion of tasks)	Week	Deadline	Task	Where to Find
	1	Sunday, January 8, 10:00 p.m.	Complete Week 1 readings on Social-Ecological Resilience & Systems	Listed with links in Section VI of this Syllabus
	1	Sunday, January 8, 10:00 p.m.	Watch Week 1 lectures	Week 1 folder in Panopto Recorded Lectures on course Blackboard site
	1	Sunday, January 8, 10:00 p.m.	Complete Week 1 Quiz on readings & lectures	Blackboard Assignments
	1	Sunday, January 8, 10:00 p.m.	Submit preference form: Mill Creek v. Caja del Rio. Email to Prof. Arnold @ tony.arnold@louisville.edu	Form on Blackboard Assignments; Discussed in Week 1 Lectures
	2	Sunday, January 15, 10:00 p.m.	Complete Week 2 readings on Adaptive Institutions	Listed with links in Section VI of this Syllabus
	2	Sunday, January 15, 10:00 p.m.	Watch Week 2 lectures	Week 2 folder in Panopto Recorded Lectures on course Blackboard site
	2	Sunday, January 15, 10:00 p.m.	Complete Week 2 Quiz on readings & lectures	Blackboard Assignments

	2	Sunday, January 15, 10:00 p.m.	Record FLIP video introducing yourself & discussing your interests in land & ecosystem conservation	Blackboard Assignments & email: will give you specific prompts & link to FLIP (a Microsoft platform).
	3	Sunday, January 22, 10:00 p.m.	Complete Week 3 readings on Landscapes, Ecosystems, & Social- Ecological Resilience	Listed with links in Section VI of this Syllabus
	3	Sunday, January 22, 10:00 p.m.	Watch Week 3 lectures	Week 3 folder in Panopto Recorded Lectures on course Blackboard site
	3	Sunday, January 22, 10:00 p.m.	Complete Week 3 Quiz on readings & lectures	Blackboard Assignments
	3	Sunday, January 22, 10:00 p.m.	Complete Doodle Poll regarding availability to meet with planning partners during Week 5	Email, Blackboard Announcements, and/or Blackboard Assignments
	4	Sunday, January 29, 10:00 p.m.	Complete Week 4 readings on Mill Creek Watershed Restoration & Greenway AND Caja del Rio Plateau Conservation & Management (ALL students read BOTH sets of readings)	Blackboard Assignments

	4	Sunday, January 29, 10:00 p.m.	Watch Week 4 lectures	Week 4 folder in Panopto Recorded Lectures on course Blackboard site
	4	Sunday, January 29, 10:00 p.m.	Complete Week 4 Quiz on readings & lectures	Blackboard Assignments
	4	Sunday, January 29, 10:00 p.m.	Complete and Submit Draft 1 of Planning Memo/Proposal (details about scope of 1 st draft assignment on Blackboard Assignments)	Blackboard Assignments
	5	Day/Time to Be Announced	Online Group Meeting with Planning Partners on Teams or Zoom	Email, Blackboard Announcements, and/or Blackboard Assignments
	5	Sunday, February 5, 10:00 p.m.	Complete Week 5 readings on 5. Planning: Conventional v. Adaptive	Listed with links in Section VI of this Syllabus
	5	Sunday, February 5, 10:00 p.m.	Watch Week 5 lectures	Week 5 folder in Panopto Recorded Lectures on course Blackboard site
	5	Sunday, February 5, 10:00 p.m.	Complete Week 5 Quiz on readings & lectures	Blackboard Assignments
	5	Sunday, February 5, 10:00 p.m.	Make arrangements with Prof. Arnold for one-on- one online meeting during Week 6 on Teams	Email Prof. Arnold

	6	Sunday, February 12, 10:00 p.m.	Complete Week 6 readings on Designing & Implementing Adaptive Planning	Listed with links in Section VI of this Syllabus
	6	Sunday, February 12, 10:00 p.m.	Watch Week 6 lectures	Week 6 folder in Panopto Recorded Lectures on course Blackboard site
	6	Sunday, February 12, 10:00 p.m.	Complete Week 6 Quiz on readings & lectures	Blackboard Assignments
	6	At scheduled day & time	Meet with Prof. Arnold one-on-one online meeting during Week 6 on Teams	Teams
	7	Sunday, February 19, 10:00 p.m.	Complete Week 7 readings on Scenario Planning; Additional Insights re: Adaptive Planning	Listed with links in Section VI of this Syllabus
	7	Sunday, February 19, 10:00 p.m..	Watch Week 7 lectures	Week 7 folder in Panopto Recorded Lectures on course Blackboard site
	7	Sunday, February 19, 10:00 p.m.	Complete Week 7 Quiz on readings & lectures	Blackboard Assignments
	7	Sunday, February 19, 10:00 p.m.	Complete and Submit Draft 2 of Planning Memo/Proposal (details about scope of 2 nd draft	Blackboard Assignments

			assignment on Blackboard Assignments)	
	8	Sunday, February 26, 10:00 p.m.	Complete Week 8 readings on Resilience Justice	Listed with links in Section VI of this Syllabus
	8	Sunday, February 26, 10:00 p.m.	Watch Week 8 lectures	Week 8 folder in Panopto Recorded Lectures on course Blackboard site
	8	Sunday, February 26, 10:00 p.m.	Complete Week 8 Quiz on readings & lectures	Blackboard Assignments
	8	Sunday, February 26, 10:00 p.m.	Record FLIP video about your work on the planning memo/proposal so far & your thoughts about what you've been learning in the course	Blackboard Assignments & email: will give you specific prompts & link to FLIP (a Microsoft platform).
	8	Sunday, February 26, 10:00 p.m.	Make arrangements with Prof. Arnold for one-on-one online meeting during Week 9 on Teams	Email Prof. Arnold
	9	Sunday, March 5, 10:00 p.m.	Complete Week 9 readings on Integrating Resilience Justice into Adaptive Planning	Listed with links in Section VI of this Syllabus
	9	Sunday, March 5, 10:00 p.m.	Watch Week 9 lectures	Week 9 folder in Panopto Recorded Lectures on

				course Blackboard site
	9	Sunday, March 5, 10:00 p.m.	Complete Week 9 Quiz on readings & lectures	Blackboard Assignments
	9	At scheduled day & time	Meet with Prof. Arnold one-on-one online meeting during Week 9 on Teams	Teams
	10	Sunday, March 12, 10:00 p.m.	Complete Week 10 readings on Inclusive Planning	Listed with links in Section VI of this Syllabus
	10	Sunday, March 12, 10:00 p.m.	Watch Week 10 lectures	Week 10 folder in Panopto Recorded Lectures on course Blackboard site
	10	Sunday, March 12, 10:00 p.m.	Complete Week 10 Quiz on readings & lectures	Blackboard Assignments
	10	Sunday, March 12, 10:00 p.m.	Complete and Submit Draft 3 of Planning Memo/Proposal (details about scope of 3 rd draft assignment on Blackboard Assignments)	Blackboard Assignments
		March 13 through March 19	Spring Break	
	11-14	March 20- April 16	Work on Memo/Proposal: additional research, revisions, rewriting, editing, proofreading. Arrange online meetings with Professor Arnold for feedback, guidance, etc.	

	14	Sunday, April 16, 10:00 p.m.	Final Memo/Proposal Due	Blackboard Assignments
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Landscapes/Ecosystems: Pictured below & on the next page are examples of 5 different types of landscapes/ecosystems: Pisgah National Forest, NC; Waterfront Park & Ohio River, KY; Snowy Range in the Medicine Bow National Forest, WY; Snow Canyon State Park, UT; Joshua Tree National Park, CA. Source: Tony Arnold





Instructor: Your course is taught by Professor Tony Arnold, who is pictured below & on the next page in 4 iconic landscapes/ecosystems that have been the subject of famous conservation efforts: Crystal Cove State Park, CA; Red River Gorge, KY; Parklands of Floyds Fork, KY; & Zion National Park, UT. Sources: Tony Arnold





Ecosystems, Resilience, & Resilience Justice: Pictured below & on the next page are 4 degraded ecosystems that are undergoing significant restoration involving issues of social-ecological resilience & resilience justice: Everglades, FL; Los Angeles River, CA; Anacostia River, DC; Tallgrass Prairies, KS. Sources: Tony Arnold & Anacostia Watershed Society.



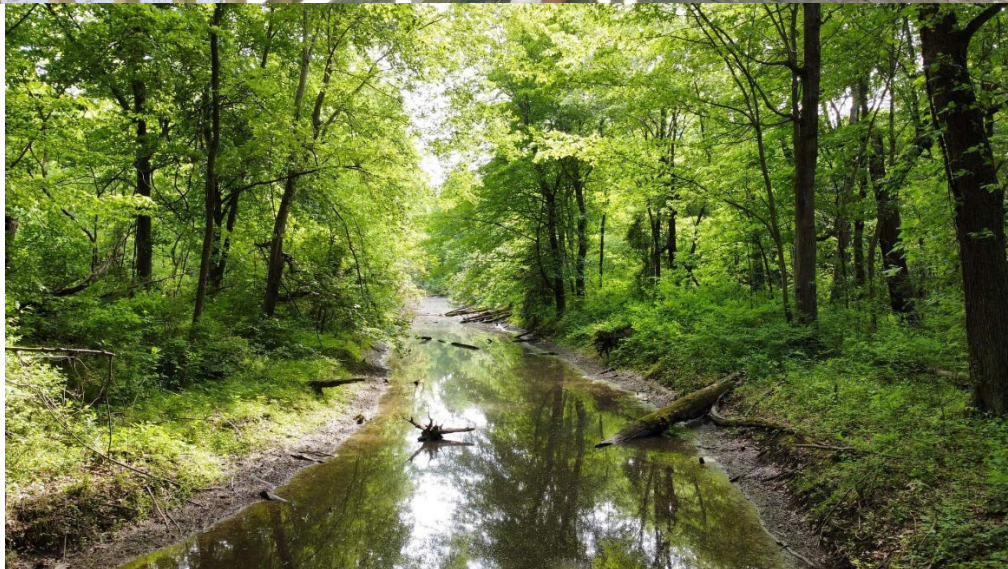


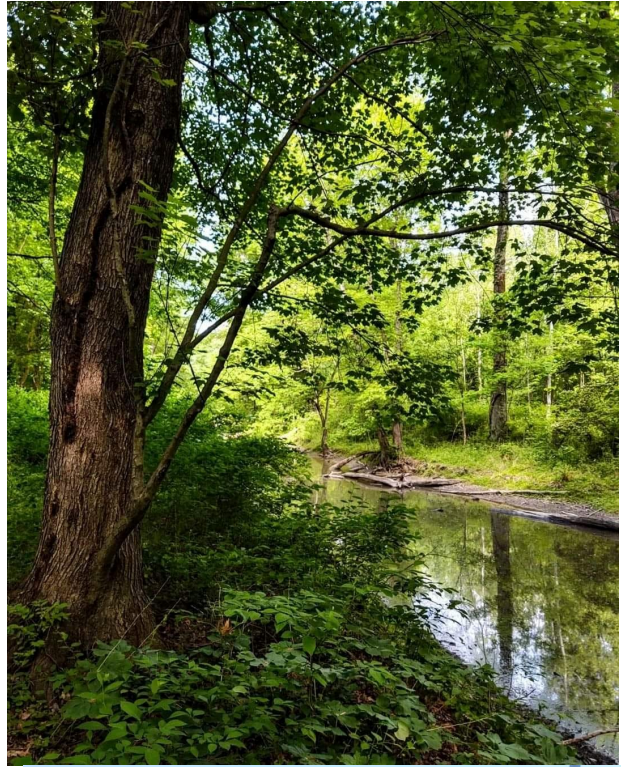
Caja del Rio: Pictured below & on the next page is the Caja del Rio, NM, 1 of the 2 major landscapes/ecosystems to which we will apply the principles of adaptive planning, social-ecological resilience, and resilience justice. Source: Andrew Black.





Mill Creek Watershed & Greenway: Pictured below & on the next page is the Mill Creek watershed, KY, 1 of the 2 major landscapes/ecosystems to which we will apply the principles of adaptive planning, social-ecological resilience, and resilience justice. Sources: Tony Arnold & Frank Bencomo-Suarez.





Title IX/Clery Act Notification

Sexual misconduct (including sexual harassment, sexual assault, and any other nonconsensual behavior of a sexual nature) and sex discrimination violate University policies. Students experiencing such behavior may obtain **confidential** support from the PEACC Program (852-2663), Counseling Center (852-6585), and Campus Health Services (852-6479). To report sexual misconduct or sex discrimination, contact the Dean of Students (852-5787) or University of Louisville Police (852-6111).

Disclosure to **University faculty or instructors** of sexual misconduct, domestic violence, dating violence, or sex discrimination occurring on campus, in a University-sponsored program, or involving a campus visitor or University student or employee (whether current or former) is **not confidential** under Title IX. Faculty and instructors must forward such reports, including names and circumstances, to the University's Title IX officer.

For more information, see the Sexual Misconduct Resource Guide (<http://louisville.edu/hr/employeerelations/sexual-misconduct-brochure>).

Accommodations

Students with disabilities who require accommodations must make those requests known as soon as possible to the Assistant Dean for Student Life of the Law School or the University Disability Resource Center. The DRC handles the evaluation of the documentation of the disability and the relationship to the requested accommodation. For more information on accommodations, see the Handbook for Students and Applicants with Disabilities on the Law School website. For more information regarding disability services, see <http://louisville.edu/disability/>.