

E555 Urban Ecology – Syllabus, spring 2017, 3cr, Final, 1-3-17

Meeting Schedule and Location:

Tuesdays – 4-6:30pm

Tocqueville Room, The Vincent & Elinor Ostrom Workshop in Political Theory & Policy Analysis
513 N. Park Avenue, IUB

Exams: None

Instructor:

Burnell “Burney” C. Fischer, Ph.D., CF, Clinical Professor Emeritus, IUB SPEA
Senior Research Fellow & Affiliated Faculty (formerly Co-Director/Interim Director) Ostrom Workshop
Building #3, Ostrom Workshop, 513 N. Park Ave (note: I do not have an office at SPEA)
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bufische@indiana.edu

Burney is in his 12th year at IUB. He was previously State Forester/Director, IDNR Division of Forestry (1990-2005), Professor/Extension Forester at Purdue University (1977-97) and Assistant Professor at UMass (1974-77). For the past 11 years he has taught E422/E522 Urban Forest Management (UFM). The course increased in size from 18 the first semester offered to now 40/year. UFM course graduates in both internships and full-time positions in urban forestry/ecology related employment. In 2014 UFM was split into separate undergraduate and graduate sections for a one-time experience. **E555 Urban Ecology was initiated in fall 2010 per the request of master’s students taking UFM in spring 2010 and offered again in spring 2012, 2014-15-16. Urban Ecology is being offered again in spring 2017.**

Dr. Fischer has been active in urban forestry at local, state and national levels for the past 25+ years. He is Past President of the Indiana Urban Forest Council, serves on the Arbor Day Foundation’s Tree Campus USA Advisory Committee and has been a board member of the national Alliance for Community Trees (ACTrees) and Keep Indianapolis Beautiful (KIB). He served on the Lafayette IN Tree Commission as chair (2001-04), the Bloomington Tree Commission (2006-10) and the IUB Campus Tree Committee (2008-14). Professor Fischer is active in urban forestry research and service at IUB and with the City of Bloomington by providing leadership in a variety of initiatives including tree inventories, IUB Tree Campus USA designation and securing urban forestry research/service/teaching grants. He is lead PI for the Bloomington Urban Forestry Research Group (BUFRG) at the Center for the study of Population, Institutions and Environmental Change (CIPEC) at the Ostrom Workshop. He received the 2013 Frederick Law Olmsted Award from the Arbor Day Foundation, which recognizes an outstanding individual who has had a positive impact on the environment due to their lifelong commitment to tree planting and conservation at a state or regional level. The following story highlights his award http://www.indiana.edu/~spea/news/burney_arbor.shtml. In 2014 the Indiana Urban Forest Council recognized him with their Outstanding Lifetime Achievement Award in promoting the principles of urban forestry in Indiana.

Secretary:

Jennifer Mitchner jmitchne@indiana.edu

Office Hours:

Available most TTH’s 12:30-1:30pm SPEA Atrium; Workshop office before Tues class; individual meetings scheduled via email

Prospectus:

The emerging discipline of urban ecology, a subfield of ecology, deals with the interaction of organisms in an urban or urbanizing community and their interaction with that community. With over 50% of the world’s population now living in urban or urbanizing areas, and urbanization of the landscape in the US expected to grow from 3.1% (2000) to 8.1% by 2050 (Nowak 2005), urban ecosystems are becoming a dominate landscape feature. These urban areas are influential well beyond their perceived borders and shape how many people view the built world. Research in urban ecology, urban ecosystems and in urban social-ecological systems (or SES’s) is rapidly expanding with an ever broadening array of journals, books and other publications as well as new research centers and collaborative projects. Our task in this course is to begin to sort out this complex situation and help each of us develop personal syntheses for ourselves in regard to the ecology of our cities and how to sustainably manage them.

General Course Format and Content:

This is an elective course and it is assumed that enrolled graduate students are interested in learning about and discussing the topic of urban ecology. Although the course will generally cover the topic of urban ecology, it will be flexible enough to allow for individual student outreach into topics of specific interest with regard to urban and urbanizing areas. Overarching these topics will be a set of themes that we will revisit weekly (see handout). Also, we will monitor active current events to enhance the learning experience with real world situations via weekly reviews of articles posted on the Nature of Cities <http://www.thenatureofcities.com/> and from the Atlantic CityLab <http://www.citylab.com/> (formerly Atlantic Cities/Place Matters <http://www.theatlanticcities.com/posts/urban-wonk/>). Students can always post questions to the instructor via email or to the Canvas chat room for classroom discussion.

The course will investigate urban ecology using the Draft Syllabus (working model) proposed below. This is a discussion based course which is co-designed by the students and instructor to cover a wide range of topics and themes in the field of urban ecology. Classroom participation will be critical for each student. There will hopefully be several class meetings with in-person or live video conferences with selected researchers, etc. Each class meeting will be broken up into multiple student team led discussion sessions. Each student will prepare a professional book review and brief presentation (mid-semester due date; can relate to your research paper) on a book of their choice. And, each student (or small student team) will prepare a research paper (original research, research literature review, research based blog suitable for submission &/or research proposal, that might be submitted for funding) on a topic of their choice and give a short presentation on their findings at the end of the semester. A possible goal of the research papers is a conference presentation at the Indiana Academy of Science (Ecology or Environmental Quality Sections), other conferences or similar venues, or a possible submission to a newsletter, magazine or journal.

Draft Syllabus (a working model):

To be reviewed and clarified during the first two class meetings. A starting point for the first eight weeks is the former textbook chapter headings (adapted) below. There are other options for us to consider, be prepared to suggest, particularly the insertion of speakers during weeks 3-8 rather than all between weeks 10-14 after spring break.

- 1) Introduction to Urban, Urban Ecology and Urban Ecosystems
 - a. What is urban? How does this relate to the concept of the Anthropocene? See posted article from Economist (2012) if this is a new concept to you.
 - b. Read the following article from Atlantic Cities "The Rise of Urban Ecology" (see Canvas Assignments Week #1 for this for article; but it's the many citations to other articles this is really the interesting stuff)
<http://www.citylab.com/weather/2012/11/rise-urban-ecology/4032/>
 - c. See Canvas Assignments Week 1 and Themes/Terminology/etc. folders for readings, handouts, etc.
 - 2) Overview of Urban Ecology and Urban Ecosystems
 - a. see Canvas Assignments Week 2
 - b. review Week 1 handouts per deciding on topics/themes for Weeks 3-8 and possible class guests/interviews
- 3-8) TBD
- 9) Book Reviews – Presentations by Students; Summary of First Half of Course
10-14) TBD – Some ideas Listed Below
- Special theme developed by a Discussion Team (see explanation of Teams below)
 - Invited Guest Speakers – in-person or via Skype/Video Conference – could be urban ecologists, urban planners, research teams, etc. Note: Tocqueville Room technologies are virtually limitless.
 - Class reading/discussion of a short monograph/book, etc.
- 15) Student Paper Presentations; Closing discussion - Future of Urban Ecosystems (Chapter 9)

Readings, Materials & Canvas:

A previous class textbook was *Urban Ecosystems: Understanding the Human Environment*, by R.A. Francis and M.A. Chadwick. 2013. Routledge, 220 p. After two years of use students agreed that the textbook should be eliminated so that we just focus on topics of interest and current literature (suggestion is no articles before 2011).

The instructor/students will post articles, briefing papers and memos on Canvas (see Canvas info below - This is Burney's third experience with Canvas, so we may experiment with other options). It is expected that reading assignments will be read and students will be knowledgeable of the material. Questions about the readings should be brought up in class or posted ahead of time. The instructor can always be contacted via email. Regarding Canvas – We will utilize the following functions to start:

- Announcements – general course updates, etc. from the instructor will be posted.
- Assignments – Folders for each week's readings (Week 1-15), separate folders for Book Reports, Research Papers and misc. folders as needed. This is the go-to place for the class.
- Chat Room – any questions you have for the instructor/classmates outside of class can be posted here. I will review this section daily and respond to questions in the Chat Room. It is particularly important that questions on course policies and content be posted by Monday evening so that they can be addressed during the class on Tuesday afternoon. *Note: the Chat Room is an open site for all course registrants.*
- Grades – all classroom attendance/participation and grades will be promptly posted for your review.
- Syllabus – a listing of all course assignments, etc.

Readings and Homework Assignments:

Readings Assignments will be updated weekly during the semester with a new Assignments Week # Readings folder.

All written assignments should be typed in the following format: Times New Roman 11-12 font, last name, first name and topic on the top line of the first page, double-spaced, one-inch margins all around, and multi-page assignments must be stapled. Use appropriate footnotes, charts, tables, graphics, illustrations and citations as needed.

Assignments will be given a word/page limit. The instructor will not read beyond the assigned limit. Assignments should be concise, organized and when necessary appropriately supported with relevant literature. Always cite everything you quote directly or paraphrase. Use in-text citations whenever you quote or paraphrase.

Assignments are to be submitted on the specified due date. Late assignments will be accepted with a penalty of -33.3%/day, unless we have agreed in advance to an alternative. Genuine emergencies where proper documentation is provided may result in the acceptance of a late assignment and different grade adjustment. If you anticipate a serious conflict that prevents you from completing an assignment, please email the instructor beforehand.

Student Progress Memo (1) and End of Course Reflection:

Students will prepare one progress memo following the 6th week of the semester. The purpose of the student progress memo (2-3 pages) is to describe how you are reading/understanding articles, what questions you are asking yourself, discuss progress on the book review and research paper, and whatever else is on your mind per urban ecology. The progress memo is to be posted at Canvas-Assignments-Progress Memo by 8pm on Sunday February 19, so that the instructor/fellow students can read them before Tuesday's class. Each student will prepare an end-of-the-course reflection to be submitted after the last class period. More on that near the end of the semester.

Teams leading discussions (3-4 students/team) and Team Briefing Papers:

Teams of 3-4 students will lead discussion/guest speaker sessions for a total of 11 class periods (weeks 3-8, & 10-14). Each student will be the member of four different teams. The team should clearly identify the weekly topic/theme, the 3-4 articles to be read and develop a briefing paper for each article. Articles are to focus on the primary, peer reviewed literature, although one review and/or application (urban ecology "for" the city) might fit a particular topic. The articles and briefing papers should be sent to the instructor (bufische@indiana.edu) by no later than 5pm Friday of the week before they are to be discussed so that I can post and students can read before the next Tuesday. The briefing paper format is as follows: 2-3 pages in length, complete citation for the assigned reading and student name(s) on the top line, concise paragraph describing the primary purpose/objectives/research questions of the assigned reading, a clear review of how the author(s) meet the purpose/objectives, a paragraph or two describing what you learned from the article, and finally, 1-2 well written trigger question(s) to help elicit class engagement that the team will present during the review/discussion of the article. Teams will lead the discussion of the topic and articles any way they choose. The key is to engage the class in discussion; this is not expected to be a lecture and note-taking format. If special themes develop, such as the "What is Urban" discussion in week one, there may be need for an additional briefing paper to be developed and distributed afterwards.

Book review (1/student):

Each student will prepare one professional book review. The book should generally be about urban ecology/urban ecosystems, but I give each student the opportunity to find a book that interests them. The review must be between 750-1000 words in length and will be shared with your classmates via Canvas – Assignments – Book Reviews, and a brief class presentation on March 7 (more on this later in the semester). I strongly suggest that you review some standard guidelines and ideas for book reviews by searching "book review guidelines." I have a selection of books to choose from but feel free to select any book that interests you and expands upon your particular area(s) of interests in urban ecology. Submission and justification, one page maximum, of the proposed book you wish to review submitted to the instructor by Friday COB, February 17. Book review is due Friday COB, March 3.

Research Paper and Presentation (1/student):

Each student will select a topic in consultation with the instructor to write a research paper (real data) or research literature review or blog suitable for submission for publication or research proposal or combination thereof. Students have the opportunity to work in small teams (max of 3 team members) if you choose. I will assume that everyone is working individually unless you specifically propose to collaborate with other students. All collaborations are voluntary – i.e., make sure you have an agreement from your proposed partner(s) before submitting a proposal. Obviously team projects will be larger in scope than individual projects. A title and pre-proposal (maximum 2 pages) is due to the instructor by Friday COB, February 26 (negotiable date if you need more time is possible). The research paper can be biologically or policy based depending upon the student's interest and must broadly be within the framework of urban ecology/urban ecosystems. The text of the paper is limited to 12-25 pages and should include all necessary citations, etc. Additional pages for appendices – tables, figures, etc are allowed. Each student/team will schedule a ½ hour meeting with the instructor during late March/early April to review progress of the paper. An outline of your paper would be most appropriate for this meeting. Each student/team will give a brief 5-10 minute

PowerPoint presentation on the results of the research paper on either April 19th or 26th. Final submission due date is Friday COB, April 29. Early submissions are encouraged!

Class Professionalism Policy¹:

Students are expected to act in a professional manner. Excessive violations of professionalism will result in a significant reduction in the participation portion of the grade for the course, which will lower your grade. Violations of professionalism include, but are not limited to the following:

- Activated cell phones or ipods – they should be stored away during class
- Reading the newspaper or sleeping during class
- Arriving late for class or leaving class early (unless agreed upon by instructor beforehand)
- Accessing email or surfing the web during class; quietly taking notes with a computer is acceptable
- Working on material for another course during class
- Exhibiting disrespect for the instructor or classmates
- Disruptive behavior – e.g. carrying on conversations or being excessively noisy
- Engaging in any activity that prevents you from fully participating in the class
- The class period is 2.5 hrs long. There will be breaks, coffee and some snacks. Be prepared to stay for the whole session. Please leave the classroom if you must engage in anything other than class activities and return when you can fully participate.

¹Adapted from Murphy, S. 2006. Surfing in Class, A New Temptation. The ISS Newsletter (July 2006), p 4-5.

Attendance & Classroom Participation:

Informed attendance is required for participation in class discussion. This is a discussion based class, and it only works if all participants are both up-to-date on the readings and willing to actively participate. I record attendance and evaluate classroom participation. A special note about classroom participation - I have found that SPEA students tend to be great note takers but not so great classroom participants. There are of course exceptions to both of these generalizations. I will gently encourage students to be classroom discussion leaders - be prepared for this experience. The quality of participation will impact your participation grade.

Grading:

A necessary evil is that I will grade participation, presentations and submitted papers, and at the end of the course each student will receive a final grade. There will be no quizzes or exams in this course. Remember, my purpose as an instructor is to facilitate learning and the whole experience. All writing assignments count. There are no make-ups, extra credit is not available. My expectation for the distribution of points during the semester is as follows:

| | |
|--|------------|
| Individual Participation (attendance & class discussion) | 250 points |
| Team Led Discussions/Briefing Papers (4 class periods) | 200 |
| Progress Memo and Reflection | 50 |
| Book review + presentation | 100 |
| Research paper + presentation | <u>150</u> |
| Total | 750 points |

The semester grading scale is 92-100% = A, 82-92% = B, 72-82% = C, 62-72% = D & <62 = F. The instructor reserves the right to adjust this scale downward as well as to assign +'s and -'s.

Other Policies & Information:

Indiana University Code of Student Rights, Responsibilities, and Conduct:

Available online: <http://www.iu.edu/~code/code/index.shtml>

Portions are cut and pasted below.

Indiana University/SPEA Academic Policies:

Available online: http://www.indiana.edu/~spea/about_spea/SPEA%20Policies%20.shtml

Portions are cut and pasted below.

Academic Dishonesty

SPEA faculty do not tolerate cheating, plagiarism, or any other form of academic dishonesty. 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/code/index.shtml> 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.

Civility

Civility is important in an academic community to ensure that all parties—students, staff, and faculty—are working in an environment that fosters achievement of the individual's and community's goals and objectives. Civility requires all parties to demonstrate personal integrity and conduct themselves in a manner that shows respect, courtesy and tolerance to others. Examples of discourteous behaviors during class include reading the newspaper, listening to headphones, talking or laughing with others, chronically arriving late, and so forth. These behaviors are distracting to the instructor and classmates, and SPEA faculty will address these problems as they arise. Maintaining and fostering civility inside and outside the classroom is especially important to SPEA, which is a professional school.

Pursuant to the Indiana University Student Code of Conduct, disorderly conduct which interferes with teaching, research, administration, or other university or university-authorized activity will not be tolerated and will be immediately reported to the Office of The Dean of Students for appropriate disposition which may result in disciplinary action including possible suspension and/or expulsion from the university.

Communication between Faculty and Students

In order to verify the identity of all parties involved, effective September 1, 2004, all email communication from current SPEA students to SPEA staff must originate from an Indiana University email account. For email communication with SPEA faculty, current SPEA students should refer to course syllabi for instructors' preferences (Canvas, Webmail, etc.). This policy applies to current students only. Instructions for forwarding your IUB email to another account can be found at: <http://kb.indiana.edu/data/beoj.html?cust=687481.87815.30>

Course Withdrawals

Students who stop attending class without properly withdrawing from the class may receive a grade of F. It is important to withdraw from a course within specified timeframes (see chart below). Note that withdrawals after Week 12 of a regular session or Week 4 of a summer session are rarely granted. **Poor performance in a course is not grounds for a late withdrawal.**