Draft Syllabus - V600 Capstone (Fischer) – Enhancing the Hubbard County Coalition of Lake Associations' Lake Monitoring Program (8-19-14)

Instructors:
Burnell "Burney" C. Fischer, Ph.D., CF
Clinical Professor, School of Public and Environmental Affairs
Interim Director, The Vincent and Elinor Ostrom Workshop in Political Theory and Policy Analysis
Affiliated Faculty, Center for the Study of Institutions, Population and Environmental Change
513 Park Avenue
bufische@indiana.edu

Staff Support:

Charlie Abbott, SPEA   David Price, Workshop
clabbott@indiana.edu   daaprice@indiana.edu

Time/Location:
Mondays 4-6:30pm
Ostrom or Tocqueville Room
The Workshop in Political Theory and Policy Analysis
IU-Bloomington
513 Park Ave
Bloomington, IN

Course Summary:
Lake Associations (LAs) can play an important role in promoting, protecting, and enhancing watershed stewardship, and subsequently, lake quality and associated ecosystem services. LAs are generally defined as organizations made up of lakeshore owners who address issues pertaining to the lake on which they live. With varying degrees of formality and focus, these volunteer-based groups have formed to advocate for improved water quality, to promote fish and wildlife habitat, express concern about various issues including aquatic invasive species and shoreline development, and support sustainability of fisheries and water based recreation, etc. LAs may initially form to address a local problem, but over time they often remain organized to, for example, participate in water quality and/or other types of lake monitoring, fish/wildlife habitat improvement projects, and to resolve stakeholder conflicts. LAs may become involved in a broader array of issues that expand beyond the lakeshore to the boundaries of the watershed involving a whole range of stakeholders – individuals, corporations, local (township and county) and state government. And, LA's may band together into county-wide coalitions or state associations to further their goals.

In spring 2013, a SPEA capstone course completed a project with the Hubbard County, Minnesota Coalition of Lake Associations (COLA) which resulted in the report "Guidelines for Sustainable Lake Associations and Coalitions of Lake Associations: Research and Recommendations."   This report and follow-up interactions have resulted in an action plan that is being implemented by the COLA Board and several standing committees. A publication from the 2013 capstone, "Analyzing and Improving the Sustainability of Lake Associations: The success of an online lake resident survey to improve lake association sustainability" by J. Okajima, J. McGee, B.C. Fischer, and J.R. Farmer, LakeLine Magazine (Volume 34 (2):27-33) Summer 2014 issue, was recently published by the North American Lake Management Society (NALMS).

At the request of the Hubbard County COLA, IUB SPEA masters students will once again work with the organization, utilizing this 2014 capstone course to evaluate lake monitoring by the COLA and individual lake association members. Specifically, students will utilize lake monitoring processes, protocols and data

to make recommendations for best management strategies for LAs to support both protection and restoration of lakes. Lake monitoring for this project is broadly defined; it is inclusive of standard water quality indicators as well as water clarity monitoring, vegetation mapping, monitoring for aquatic invasive species including plants and Zebra Mussels (veligers), monitoring for birds and other wildlife, lakeshore rules compliance, water based recreation monitoring, general watershed monitoring and more. Our specific task is to evaluate the Hubbard County COLA's lake monitoring program conducted across 29 lake associations, and conduct a gap analysis of protocols or activities missing per standard protocols. We will evaluate approximately 22 Minnesota COLAs to give us comparison of the types of programs currently active in the state. We will interview/survey government officials at the state (Minnesota Pollution Control Agency, Department of Natural Resources, etc.) and county level to learn of their interests, concerns and recommendations about lake association lake monitoring.   Specifically, we seek to address the following research questions which will be refined in partnership with the COLA during the first four weeks of the course:

- What is the Minnesota standard for lake water quality and, more broadly, lake monitoring by COLAs?
- What is the range of lake monitoring in the Hubbard County COLA?
- What actions would need to be taken to raise the level of lake monitoring in the Hubbard County COLA to the top tier of Minnesota COLA's?
- Where are opportunities for additional financial and other resources to assist the Hubbard County COLA to achieve greater success in lake monitoring?
- What would be the payoffs to the Hubbard County COLA in achieving this goal and how might success be defined?

Upon completion of the analysis, we will deliver a draft report of guidelines for enhancing the Hubbard County COLA's lake monitoring programs to a COLA capstone advisory committee and the COLA Board for their review and comments. A presentation of the final report will be made to the Hubbard County COLA Board of Directors, representatives of selected government agencies and possibly representatives from other Minnesota COLAs.

Appropriate Students for Enrollment:

Both MSES and MPA students who are interested in natural resource management and governance, and want to help make a difference in how stakeholders (lake residents, businesses (resorts, etc.), corporations, and local and state government, etc.) can work collectively to monitor lake water quality, sustainably manage lakes and lake watersheds through lake associations.

Course Format, Style and Attendance:

This is an elective capstone course and it is assumed that enrolled students are interested in participating fully. The course will consist of one 2.5 hr meeting per week (Mondays 4-6:30). Weekly attendance is required of everyone. There will be some class meetings where work groups and teams will spend much of the time period working on tasks and interacting individually with the instructor rather than meeting as a whole.

We will be using much of our month or so of class meetings to bring each other up-to-speed on the issues, project design, and project implementation involved in this capstone. Some of the content of the first month of classes will be to discuss readings about the lake management associations, lake monitoring programs and the appropriate project design for answering our clients' questions, which will be

clarified during Week 3. Additionally, we will also need to consider how best to organize students into useful teams and/or working groups to serve the interests of both the class and the client. After the first four weeks, the content of class meetings will be driven mostly by the students with the instructor providing support and oversight.

We will break the class up into both teams and working groups. Teams are long-term, maybe semester long groups of students in charge of things like the data management, final report writing, final presentation and whatever else we identify. Working groups are more short term groups of students to conduct interviews, conduct surveys, do a quick literature review, etc. I expect most working groups will be short term in nature and all should be completed by around the first week of November.

A consistent expectation for the class, working groups and team meetings will be for each student to be up-to-speed on readings, project design, data collection, data analysis and report expectations. Knowledgeable and interactive students are necessary for a successful capstone project.

Regarding Oncourse – We will utilize at least the following functions of Oncourse:

- *Syllabus* – current syllabus (rules and outline of the course) will be posted.
- *Announcements* – general course updates, etc. from the instructor will be posted.
- *Resources* – all reading assignments and other sources of information will be posted by subject area folder (see both topical and weekly folders, etc.).
- *Chat Room* – any questions for the instructor(s) outside of class can be posted on this public section. We will try to review daily and respond to your question in the Chat Room. It is particularly important that questions on course policies and content be posted by Monday morning so they can be addressed during class meetings later that day. *Note: the Chat Room is an open site for all registered for the course.*
- *Messages* – working groups, teams, etc., will provide brief reports to the instructor and classmates; more to come on format and use.
- *Grade Book* – all group, team and classroom participation grades will be promptly posted for your review.

Class Professionalism Policy[1]:

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, and could result in an intervention leading to expulsion from the course. 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. Be prepared to stay for the whole session. Please leave the classroom if you must engage in anything other than class activities and return for the next class period when you can fully participate.

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

The SPEA Student Honor Code:

() passed by SPEA Faculty 2007, outlines the honesty and integrity expected from each student. The Code outlines the scope, violations, reporting, handling of academic honesty, and civility and professional conduct for all students taking SPEA courses.

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 (which also includes falsifying data) is proven, you will receive a grade of zero for the work; repeat offense is grounds for failure in the course. You are responsible for understanding the concept of plagiarism and for avoiding it all times.

Student Evaluation:

A necessary evil is that at the end of the course each student will receive a final grade. Your final individual course grade will be determined by three major grades: 1) Student self-evaluations, 2) Student evaluations of their fellow students (working groups and teams) and 3) Instructor evaluations of participation, products, etc. There will be more definition to the grading scheme as working groups, teams and additional organizational structure is designed by the students.

The semester grading scale is 92-100% = A, 82-92% = B, 72-82% = C, 62-72% = D & <62 = F. The instructors reserve the right to adjust this scale downward for variability in grading.

Week # Class Topics and Assignments:

Week 1 (8/25/14) - Course and Project Introduction; Welcome to The Workshop, our classroom home for the semester; Introductions of instructor and students, sort of an ice breaker for us all; Review/discuss class project and first set of reading assignments that were distributed the week before classes began; Introduction to IRB, since we probably will be conducting interviews and possibly using an on-line survey to gather some information; Discuss/Sign research intent form; Discuss/design the format for the Week #3 client interview; First work groups/teams identified and charge to teams decided by class; other stuff as we have time.

Week 2 (9/1/14) - Labor Day, no class meeting. A disadvantage to our gearing up, but this week can be spent reading, getting organized for week 3 and possibly some teams/working groups starting to work on things identified from Week 1.

Week 3 (9/8/14) - Meet with the Client (video conference(s) with select group of COLA Board/LA's representatives/Gov't officials); Three major objectives: 1) Understanding LA's and COLA's and charge from the client, 2) Understanding lake monitoring per our definition (see above Course Summary) and 3) reviewing the specific questions we have identified (see above) and that client (Hubbard COLA) wants us to pursue (be aware and listen carefully for nuances to our questions; Post client interview(s) - discuss "findings" and other questions, follow-ups?; IRB test must be successfully completed by each student; Take away assignments for students/working groups/teams should be clearly identified and outputs/outcomes for up-coming week(s) clearly identified.

Week 4 (9/15/14) – Literature Review and Project Design Session; Review of literature regarding lake associations and lake monitoring – what do we know, what's still to be learned, What are LA goals vs just nice to know?; Introduction to project design - backward project design timeline; ?Completion of any on-

line surveys for final submission to IRB; Discussion and decision-making on other surveys and data collection strategies; Review of database for website and document data collection; Class addresses formation of working groups and teams to meet project goals. **Note: Instructor will be absent from class and unavailable**

Week 5 (9/22/14) Final Project Design and Work Assignments; Experiential class session on conducting interviews; Final decisions on working groups and team structure, membership and leadership coordination; Possible project structure identified (here's the start of structure?)1) Literature review, 2) Websites and documents review, 3) survey data analysis, 4) interview coding and analysis, 5) report writing, 6) brochure design for websites, 7) final presentation team, etc?

Week 6 (9/29/14) – Work session for groups and teams

Week 7 (10/06/14) – Working groups meetings with instructor to discuss progress

Week 8 (10/13/14) – Drafts of early findings sent to client for first review and preparation for client check-in next week.

Week 9 (10/2014) – Check-in with client via video conference; Debrief video conference, discussion of feedback and assessment of progress per client's feedback

Week 10 (10/27/14) – Teams review progress with classmates and begin to prepare reports

Week 11 (11/03/14) – Draft team reports circulated to classmates for review/comments; **Note: Instructor will be absent this week presenting at a conference, but he could be available by Skype if needed.**

Week 12 (11/10/14) – Pre-draft project report for class discussion and submission to instructor

Week 13 (11/17/14) – Draft report and any other items (brochures, etc.) submitted to instructor and **COLA**

Thanksgiving Week – No Class

Week 14 (12/1/14) – PowerPoint Presentation practice to instructor/class; Review comments from COLA, etc. on draft capstone report

Week 15 (12/8/14) – PowerPoint presentation to COLA this week via conference call; feedback from the COLA (i.e. the client); Class debrief following the presentation; Final report(s) submitted to instructor for all written materials

Week 16 (12/15/14 – Final exams week) – Any clean-up activities from the capstone are addressed by the class. Final report(s) submitted to COLA

Comprehensive list of course readings (to be compiled as the Capstone progresses) and materials, all posted to Oncourse (categories are just place holders right now):

Course documents:

Readings on Lake Monitoring:

Readings on Citizen Science:

MN COLAs Lake Monitoring Programs that we evaluated:

Etc., Etc.

Readings on research methods:

Bernard, R. (2006). Research methods in anthropology: qualitative and quantitative approaches (4th ed.). New York: Altimira Press.

Creswell, J. and Clark, V.P. (2007) Designing and conducting mixed methods research. Thousand Oaks, CA: Sage Publications.

Dillman, D., Smyth, J., and Christian, L.M. (2007). Internet, mail, and mixed-mode surveys: The tailored design method. New York: Wiley.

Patton, M.Q. (2002). Qualitative research evaluation methods (3rd ed.). Thousand Oaks, CA: Sage Publications.