ENR/AEDE 4567: *Assessing Sustainability: Project Experience*

Course Syllabus[1]
Spring Semester 2018
Lecture: TR 11:10am—12:30am (AA 108)

Instructors		
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Course Description: ENR/AEDE 4567 is the capstone course for the Environment, Economy, Development and Sustainability (EEDS) major. The overall goal of the course is to provide the opportunity for you to learn, synthesize, and apply concepts and methods of environmental, economic, and social analysis to address real world sustainability questions faced by businesses, government, and institutions. This year we are working with the City of Columbus to provide analysis for several of the City's SMART COLUMBUS projects. Bud Braughton, in charge of the City's Special Projects and Ryan Bollo, Senior Project Manager, in collaboration with Kevin McSweeney, Management Analyst, have developed a Request for Proposals (RFP) for our class that lists a number of goals, objectives, and specific actions from the SMART COLUMBUS project that they are inviting us to analyze to help the City prioritize projects of greatest impact and to achieve a range of Smart Columbus deliverables. At the end of the term, your research group will present your findings and recommendations to SMART COLUMBUS staff, EEDS faculty, the Environmental Professionals Network, and an audience of over 150 Chief Information Officers. As such, your research has the potential to meaningfully contribute to the future of sustainability and economic development programs in the City and the work experience that you gain is intended to help launch your own career in sustainability.

Prerequisites: AEDE 4330 or permission of instructor.

Course Objectives: Students will gain real world experience in developing and carrying out research related to the sustainability and economic development plans of an organization (the City of Columbus); students will apply data analysis methods to measuring specific economic, environmental and social factors and assessing the implications for sustainability and economic development projects for the City of Columbus; students will develop an understanding of how project appraisal tools and methods, including but not limited to aspects of sustainability accounting, cost-benefit analysis, benchmarking, case studies and key informant interviews, can be applied to sustainability planning and management and will gain experience with project management in this setting; students will work effectively in interdisciplinary teams; students will communicate effectively in oral and written forms in researching and evaluating contemporary sustainability issues and their potential solutions; students will demonstrate professional and ethical responsibility in addressing contemporary sustainability issues; students will develop a general appreciation for communication, scientific writing, proposal development, resume writing, peer review, presentation skills, team dynamics, and critical thinking skills.

Course Format: Classroom sessions will combine short lectures and instruction with discussions of information relevant to your research projects. Several class periods will be devoted to coverage of project management, research methods, and analysis and communication tools as needed to support

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[1] Changes will be made to this syllabus as required. This syllabus is available in alternative formats upon request. Students with disabilities are responsible for making their needs known to the instructor and for seeking available assistance in a timely manner (for more information: http://www.ods.ohio-state.edu/).

group research projects. Additional class periods will be devoted to student research presentations and facilitated group time to aid your research process.

Assignments: More detailed explanations of each assignment and grading standards will be provided in class. You will receive points counting towards your final grade from class and group participation, written assignments, and oral presentations. All assignments in ENR/AEDE 4567 relate to your group research term project. These can be further subdivided as follows:

> <u>Individual Evaluation</u>: **Class Participation, Peer Critique, Peer Review:** Active participation and leadership in group project work and related classroom activities will be critical to the success of your research project, and will form a significant portion of your course grade. The peer critique will require you to evaluate another research group's proposal presentation. Each student will also peer review another group's final research report, and peer evaluations within each group will constitute half of each student's class participation score.
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> <u>Group Evaluation</u>: **Proposal Presentation Plan, Written Proposal, Final Research Poster Presentation, Final Written Report:** Group assignments, both written and oral, will make up 240 of the total 400 points in the class. Group assignments increase in point value as the term progresses, reflecting the importance of developing good teamwork habits over the course of the semester. Your group proposal presentation plan will help organize and develop the required content (as detailed in the RFP) of the oral and written portions of your research proposal. Your final research presentation will be a poster presentation plus Q&A during an Environmental Professionals Network event on April 14, and at a CIO Tomorrow Conference in downtown Columbus on April 16; your group's final written report must be 15-20 pages. Be sure to consult further assignment details that will be handed out and discussed in class for all major assignments. Final research reports will be uploaded to OSU's Knowledge Bank digital repository for Campus as a Living Laboratory (CALL) sustainability projects, and permanently archived by OSU libraries.

Grading: Points in ENR/AEDE 4567 will be distributed as follows:

Class Participation	100 Points
Research Proposal Presentation Plan	10 Points
Research Proposal Presentation Peer Critiques	10 Points
Written Project Proposal (in response to RFP)	40 Points
Research Report Peer Review	50 Points
Poster Presentation	50 Points
Final Research Report	140 Points
TOTAL	**400 Points**

Grade Scale:

A 93.00 to 100.00	A- 90.00 to 92.99	
B+ 87.00 to 89.99	B 83.00 to 86.99	B- 80.00 to 82.99
C+ 77.00 to 79.99	C 73.00 to 76.99	C- 70.00 to 72.99
D+ 67.00 to 69.99	D 60.00 to 66.99	
E 0.00 to 59.99		

Make-up Work: Make-ups for assignments will not be scheduled in the case of an unexcused absence (and in some cases, may not be rescheduled for logistical reasons). There are three situations that

constitute an "excused absence" from class. They are: 1) students who participate in a *documented* University sanctioned event, 2) students who have a *documented* death in the family, and 3) students who have received *documented* medical attention for an illness. Students who will be participating in University sanctioned events must provide the instructor with a copy of the scheduled events and those classes that will be missed. This documentation must be on University letterhead, signed by the coach/supervisor, and given to the instructor within the first two weeks of the quarter.

Late Assignment Policy: To receive full credit for writing assignments, work must be turned-in on time and in condition to be evaluated. Papers with excessive errors will be returned for resubmission and will be treated as if they are late. Late assignments will incur a deduction of 50% of the total point value for each 24-hour period (or portion) that they are late (including weekends). In-class assignments missed because of an unexcused absence cannot be made-up or repeated.

Canvas: This class will be administrated using **Canvas**; on the class website you will find the course syllabus, links to course assignments and readings, resources to help you develop and carry out your research plan, announcements, and grades. To gain access to the **Canvas** website, go to carmen.osu.edu, sign in with your OSU ID (e.g., gee.2) and password, and navigate to the ENR/AEDE 4567 website, or visit the Carmen help site: http://elearning.osu.edu/carmen%2Dhelp/students/index.htm.

Class Readings: There is no text book for this course; all assigned readings will be available online either through the University's Sustainability Goals website, City of Columbus websites, or the ENR/AEDE 4567 Carmen/Canvas website.

Academic Integrity: The university states that it is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct: **(http://oaa.osu.edu/assets/files/documents/csc_12-31-07.pdf).**

It is our intent to treat each of you as if you are honest. We assume that whatever you say or do is done in good faith. If we suspect that you have breached that trust, our intention is to report any suspected academic misconduct through appropriate channels to the University Committee on Academic Misconduct. The Ohio State University Student Handbook covers the subject should you not understand what academic misconduct is. Of course, we will be happy to discuss the topic with you on a no fault basis if we are consulted before the fact. For additional information, see the Code of Student Conduct at the link listed in the previous paragraph.

Disability Services: Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TD 292-0901; http://www.ods.ohio-state.edu/.

Schedule of Classes (Subject to Revision)

Week	Tuesday	Thursday
Jan 9, 11	Class Introduction **Submit student bio sheets**	Background on Smart Cities; forming research teams; initial group meetings: **submit team names and topic;** Group Success Discussion
Jan 16, 18	**Research projects briefing and Q&A** [Smart Columbus staff]; **submit project picks**	Research tools [Jessica Page, OSU environment librarian]; group time

Jan 23, 25	**Submit preliminary research goals to dropbox before class;** project management tips	Alumni project advice session: EEDS alumni, guest presenters; group time
Jan 30, Feb 1	Group methods roundtable and discussion of research and analysis methods (quantitative and qualitative): NPV, cost benefit analysis, survey, focus groups, key informant interviews, etc	In-class work day: logistical prep for presentations; discuss proposal and presentation plans with instructors (refer to **group proposal presentation plan handout**)
Feb 6, 8	**Proposal presentations** (5min w/ 10 min. feedback/Q&A) [Smart Columbus staff]	**Proposal Presentations** (5min w/ 10 min. feedback/Q&A) [Smart Columbus staff]; **peer critiques due 2/9, 5pm**
Feb 13, 15	Communication Tools I: writing; group time	Analysis methods as needed/group time; **written proposals due by 1:00pm** [see RFP for submission instructions]
Feb 20, 22	Critical thinking roundtable	Critical thinking continued; proposal feedback from City/University contacts and instructors; group time
Feb 27, Mar 1	Group time outside of class; instructors available if needed in office	Group time and meetings with instructors
Mar 6, 8	**Research preliminary results presentations**	**Research preliminary results presentations**
Mar 12-16	**SPRING**	**BREAK**
Mar 20, 22	Communication Tools II: presentations; group time	Group time to work on posters; group meetings about data analysis
Mar 27, 29	**Poster preview presentations** with City and University staff	**Poster preview presentations** with City and University staff
Apr 3, 5	Group meetings with instructors	Finalize posters; group time
Apr 10, 12	Group paper writing time; **research reports due to peer reviewers**	Peer reviewing; **peer reviews due Friday by 5:00pm**
Apr 17, 19	**Environmental Professionals Network Breakfast** presentations	Last class/conclusion: revision workshop: peer review discussions
Apr 24 – 27 Finals: 4/25->	**Revised Research Report due by 11:00am**	**Upload approved Final Report to KB CALL repository by 4/27**