E272/S272 - Introduction to Environmental Sciences – Spring 2017

Meeting time and location: Monday and Wednesday 11:15-12:30 PM, SPEA 276

Instructor: Sarah Powers

Office: SPEA 371B, 371 is a lab, come in, my office is in the back left corner!
Phone: 812-855-7980 – administrative assistant. Only call if it's an emergency
Office Hours: Monday 1:30 – 3:00 pm or by appointment
***E-mail*:** sarellis@indiana.edu Please use Canvas for all class correspondence. (allow 48 hours for response)

Teaching Assistant: Graduate: John Watkins

Required Text: Botkin and Keller. Environmental Science: Earth as a Living Planet, 9th Edition.

COURSE OBJECTIVES

This course will integrate the physical and biological aspects of environmental studies. We will look at different environmental issues and integrate the subject matter to evaluate earths systems. This course will give you the opportunity to look at real life issues and evaluate them both **qualitatively** and **quantitatively**. At the end of the semester students will be able to assess complex environmental problems we face now and in the future.

Learning objectives for Introduction to Environmental Science include but are not limited to the following:

- Use quantitative skills to analyze complex environmental problems.
- Evaluate the credibility of written/oral/media information related to environmental science.
- Use scientific methods/scientific reasoning to evaluate complex environmental problems.
- Understand how fundamental scientific principals inform environmental policy.

CLASS MANAGEMENT

The course management will be through Canvas and your IU email please give 48 hours for response. I suggest you make a habit of checking your email regularly as I will send out announcements and information for the course through this system. Most materials will be posted in Canvas so you should check this often. It is your responsibility to keep up with this and read announcements and emails.

COURSE GRADING

Readings Quizzes:	5%
In-class Assignments:	10 %
Homework: 5 (total)	20 %
Poster Project:	20 %
Quizzes: 2 – 5% each	5 %
Midterm Exam	20 %
Final Exam	20 %
TOTAL	**100 %**

Grade Distribution: A's 90% B's 80% C's 70% D's 60% F < 60%

COURSE STRUCTURE

Course material is organized in units that each address a particular environmental science topic. Lectures will provide you with background information, pose questions, and explain ideas. Class time will allow us the opportunity to analyze facts, search for general principles, and develop logical approaches to environmental issues. I will make use of both the chalkboard, PowerPoint presentations, in class activities and discussion. PowerPoint presentations will be made available **after** the lecture. **Missing class will make all else in the course much more difficult!**

Please bring your textbook, notes, a calculator, and scrap paper to each class.

Readings Quizzes: Prior to most classes you will be assigned a short readings quiz to complete of Canvas. In many curcumstances you will have multiple attempts, however they will close before class and you cannot make these up and they cannot be submitted late. The highest score will be kept for recording. The purpose is to establish a common knowledge prior to class time so we can use the class period more effectively to address more complex issues.

Attendance and In Class/Out of Class Short Assignments: Attending class is required. Students will have a series of in class assignments throughout the semester that **cannot be made up.** These assignments will make up a total of 10% of your final grade. I will NOT announce the in-class assignments in advance. You will be able to drop your lowest score or it will allow you some leeway in the event that you must miss a class. Under **NO** circumstances can these be made up so please **do not ask**. These assignments are designed to develop and gauge your understanding of the course material. They will not necessarily be graded on accuracy, but more on completion.

Homework: Each unit has a homework assignment associated with it. In class we will develop a tool set to help you work on the homework assignments. Due dates are indicated in the calendar below. You may work with peers to complete a problem set, and are encouraged to, however you may not copy their work. If you learn from them, solve the problem again on your own and include that answer as your final result. There is a fine line between collaboration and academic misconduct, please do not cross it. All calculations must be written out and show **ALL** your work.

- All assignments must be handed in at the beginning of the class period in which they are due before class begins.
- I do not accept assignments via email.
- Late assignments will **NOT** be accepted unless there has been prior approval. You must contact me at minimum 24 hours in advance if you will not be able to hand the assignment in on time. I have the right to refuse your request for an extension. Assignments handed in late will be penalized significantly (10% point reduction per day the assignment is late **if you have prior approval**).
- Please submit your assignments in accordance with the following general guidelines:
    - Staple all pages together, number pages, name on each page.
    - All assignments must be typed. All calculations must be written out by hand.
    - Equations, images, etc. can be inserted on attached pages (clearly labeled) or electronically in the submittal document.
- Homework assignments are weighted equally in calculation of your final grade.

Semester Project: You will work through the scientific method in order to answer a local environmental issue using the scientific method. Your results will be presented in a poster session. More details on the project will be given later.

Quizzes: There will be 2 quizzes each worth 5% of your grade. The quizzes will be designed to prepare you for the exams.

Exams: There will be 2 exams in the course a midterm and a final each worth 20% of the course grade. All exams will be comprehensive. The exams are made up of a combination of multiple choice, short answer, and calculations.

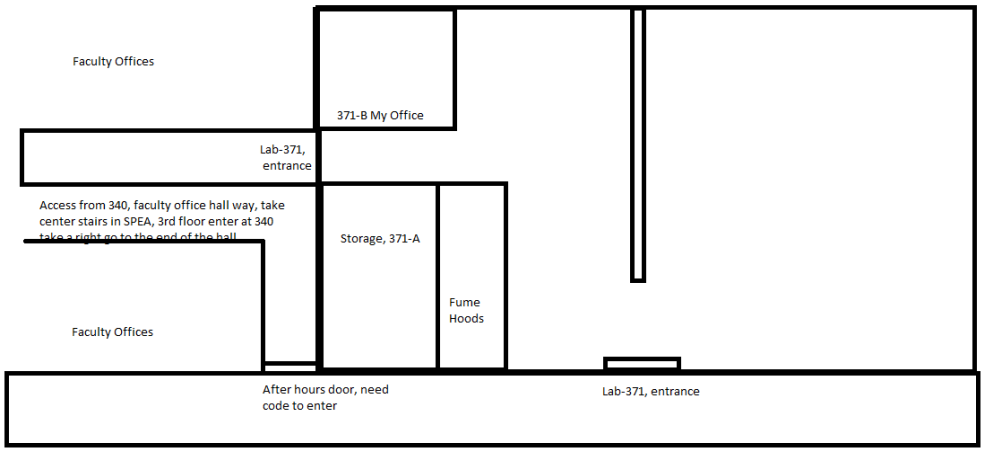
GENERAL INFORMATION

I encourage you to be respectful to your fellow students by coming to class prepared to be an active participant each day. This includes, but is not limited to, arriving on time, keeping side-conversations to a minimum, focusing your attention on the course work for the day, keeping electronic device use to course work only, not packing early, and keeping your phones put away.

If you need assistance in the course or struggle with the material please come to office hours and see me. This time is set aside for you and will usually clear up any confusion. Feel free to email me for clarification, however a conversation will often go a lot further for clarification. It is difficult to convey things via email and can often lead to more confusion.

I am happy to answer questions via email. Please allow at least 24-48 hours for email response. Please practice professionalism in your communications via email; this will be required in your future careers and now is a good time to start.

For help with homework assignments or to discuss course material in greater detail, office hours are highly encouraged. The learning process is centered on your effort.



How to find me! Please come in the lab. Even if there are others working. I am usually in the office. You can also come through 340 down the hall to the lab door.

E272 - COURSE SCHEDULE & READING ASSIGNMENTS

Topics and assignments will follow the class schedule as closely as possible; however, this schedule is subject to change. Adjustments may occur see Canvas for updates throughout the semester

Lecture No.	Date	Lecture Topic	Botkin… Reading	Assignments, Quizzes
1	9-Jan-17	Introduction and critical thinking		
2	11-Jan-17	The Scientific Method	1 & 2	Project OUT
3	16-Jan-17	NO CLASS		
4	18-Jan-17	Populations and Ecosystems	4	Interest Survey Due
5	23-Jan-17	Ecology	6	
6	25-Jan-17	Sustainablility	3	
7	30-Jan-17	Biogeochemical Cycles	7	
8	1-Feb-17	Toxigology	8	
9	6-Feb-17	Biological Preservation Landscape Preservation	9	
10	8-Feb-17	Agriculture/Project work time	11	
11	13-Feb-17	Landscape Preservation	13	HWK 1 Due
12	15-Feb-17	Energy the basics (Quiz 1)	14	
13	20-Feb-17	Conventional Power Production	15	
14	22-Feb-17	Alternative Energy	16	Hwk 2 Due
15	27-Feb-17	Mid-term Exam (Lectures 1-14)	--	
16	1-Mar-17	In-Class Workday	--	
17	6-Mar-17	Atmospheric Science	20.1-20.4	
18	8-Mar-17	Climate Change	20	
--	13-Mar-17	~~~SPRING BREAK~~~~		
--	15-Mar-17	~~~SPRING BREAK~~~~		
19	20-Mar-17	Air Pollution	21	
20	22-Mar-17	Water Resources	18	Hwk 3 Due
21	27-Mar-17	Water Budgets		
22	29-Mar-17	Water Pollution	19	
23	3-Apr-17	Water Pollution / Project Work time		
24	5-Apr-17	Eutrophication of aquatic ecosystems	Canvas	
25	10-Apr-17	Poster Presentations	--	
26	12-Apr-17	Poster Presentations	--	
27	17-Apr-17	Population	5	Hwk 4 Due
28	19-Apr-17	Human Poplulation	Canvas	
29	24-Apr-17	Materials Management	23	
30	26-Apr-17	Course Conclusions, Final Review		Hwk 5 Due

Final Exam Wednesday May 3nd from 12:30-2:30 PM

SPEA Academic Policies

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 (Oncourse, 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.**

No withdrawal forms will be processed in the Office of the Registrar after the last day of classes. Any requests for a late withdrawal after the last day of classes must go through the grade appeal process, but each student

should remember that in accordance with campus policy, SPEA does not permit a student to withdraw from a course if he/she has completed the course requirements. Grade replacement should be used in this case. To withdraw, obtain a withdrawal slip (DROP/ADD Form) from the SPEA Student Services window. Instructions for completing it are given on the form.

Withdrawal Deadlines	
Course deleted from record, no grade assigned, 100% refund (Advisor signature **IS NOT** required)	Week 1 (last day)
Withdrawal with automatic grade of W (Advisor signature **IS** required)	Week 2– Week 7 (regular session) Week 2 – Week 3 (summer session)
Withdrawal with grade of W or F (Advisor and instructor signatures **ARE** required)	Week 8 – Week 12 (regular session) Week 3 – Week 4 (summer session)

Incompletes

A grade of incomplete (I) indicates that a 'substantial portion' of the work in a course has been satisfactorily but not entirely completed by the student as of the end of the semester. The incomplete can be given to a student facing a hardship such that such that it would be unjust to hold the student to the established time limits for completing the work. To be eligible for the incomplete in a SPEA course, the student's work must be of passing quality, and the student must have completed 75% of the course requirements. **Poor performance in a course is not grounds for an incomplete.** SPEA follows the campus guidelines in awarding incompletes which may be accessed at the Office of the Registrar's website at:

http://registrar.indiana.edu/stu_grades.shtml

Incompletes must be removed within a time period not to exceed one year after the semester in which the student was enrolled in the course. The incomplete will revert to an 'F' if the work is not completed within the allotted timeframe established by the instructor.

Students Called to Active Duty

SPEA encourages any student who is in the Indiana Military Reserves and is called to active duty to finish his/her coursework if at all possible. Students who cannot complete their courses have the option of withdrawing with 100% fee refund, but this request must be made within one week of being called to active duty. Students who are called to active duty may qualify for an incomplete (provided that all the above criteria have been met). For further information, please see the Office of the Registrar's website at:

http://registrar.indiana.edu/stu_infopoli.shtml

Final Exam Schedule

If a final exam is given, it must be held on the day and time set in the final exam schedule. If an instructor has changed the final exam date, the student should first consult with the instructor. Students who have more than three final exams in one day or insufficient time to get from one exam to another should consult with their instructors to resolve these conflicts. Exams may not be given in the week before the final exam week. If a student is not able to resolve a final exam problem with the instructor, the student may report the problem to the Director of Undergraduate or Graduate programs. The final exam week schedule can be found at the Office of the Registrar's website at:

http://registrar.indiana.edu/stu_calsche.shtml

CLASSROOM EMERGENCY PREPAREDNE

protect.iu.edu

Room:





EMERGENCY COMMUNICATION

- Campus emergency communication is done via a voice message, text and/or an email through IU Notify.
- Go to One to review your contact information. See more information about IU Notify at: http://protect.iu.edu/emergency/iunotify
- Faculty – designate IU Notify monitor for each class. Self/Student

CLASS MONITOR:

ADDITIOINAL ROOM-SPECIFIC SAFETY INFORMATION

FIRE

- When you see SMOKE or FIRE, Immediately **evacuate** the building.
- If not already activated, pull the **fire alarm** switch to alert others of the situation.
- Use a **fire extinguishe**r only if you know how to use it and the fire is small.

EARTHQUAKE

- If it is severe enough to move furniture, **DROP, COVER and HOLD ON.**
- Immediately seek shelter (under a desk or table, if possible) cover your head and hold on.
- **Evacuate** if directed, or you feel it is safe to do so.

VIOLENCE/ ACTIVE SHOOTER

- There may be situations where it is imperative that you seek shelter and not leave the building.

RUN – if a safe path is available. Always try to escape or evacuate if possible.

- Call IUPD (812-855-4111) or 911 when it is safe to do so
- If evacuation is not possible:

HIDE in a concealed location, Lock and/or barricade the door, Turn off the lights, stay quiet and silence your cell phone

FIGHT – as a last resort, working together or alone, act with aggression; use improvised weapons to disarm the shooter. Commit to taking the shooter down.

- See the video at:

http://protect.iu.edu/police/active_shooter

SEVERE WEATHER

- Thunderstorms are the most common type of severe weather in the Bloomington area. However, winter storms, extreme hot/cold temperatures, flooding, and tornadoes can occur.
- Seek shelter indoors in a low part of the building (Maps w/shelter locations are located throughout the building)
- Move to a windowless interior room away from hazardous materials
- Monitor http://iub.edu/ and local media
- Take cover under a sturdy object or against an interior wall
- Wait for the all clear before leaving your safe space.

FOR THIS CLASS, the closest shelter is:

EVACUATIONS Drill or real

- When you see smoke or fire, immediately evacuate the building.
- If not already activated, pull the fire alarm switch to alert others of the situation.
- Use a fire extinguisher only if you know how to use it and the fire is small.

FOR THIS CLASS, the closest exit is:

We will meet at:

INDIANA UNIVERSITY
OFFICE OF THE EXECUTIVE VICE PRESIDENT FOR UNIVERSITY ACADEMIC AFFAIRS
University Emergency Management and Continuity

Last updated: August/2015