

## **INSC 490 Environmental Information**

Spring 2017

Delivered online via Asynchronous Distance Education (ADE)

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**Office:** 103 Communications & Information Building

**Office Hours:** Tuesdays 2:00-4:00 p.m. and by appointment

### **COURSE DESCRIPTION**

We will explore the intersection of environmental and information sciences by investigating the role of information and technology in environmental science.

We will investigate the challenges scientists, information science professionals, policy makers, and citizens face in gathering, communicating, using, interpreting, storing, and sharing information and data about our environment, as well as the role of technology and data intensive science in solving environmental problems.

You will learn about: the nature of the scientific method and research and how they relate to core information science concepts; data collection; data management; the data life cycle; environmental information policies; environmental modeling and visualizations and how they relate to information science; environmental disasters and information; the importance of metadata; and the challenges of archiving and sharing environmental information.

### **LEARNING OBJECTIVES**

1. Understand key information science concepts and be able to explain how they relate to the discovery, use, and application of science information to environmental problems.
2. Understand the major states of the data/information life cycle and apply the skills utilized in each step in class projects.
3. Understand the principles of planning for science data collection and developing a data management plan.
4. Understand the key challenges of science information in the 21st century.
5. Be able to locate and critically assess scientific information quality.

### **READINGS**

Readings and other course materials will be made available to students via the Canvas course site. There is no required textbook.

### **ABOUT THE COURSE**

INSC 490 will be delivered as an asynchronous online course, which means that students will access each week's pre-recorded class sessions at a time of their choosing, during the course of that week. This course will typically have one or two recorded class sessions of no more than 75 minutes, which will be made available to you each week.

The UT School of Information Sciences (SIS) offers online courses for undergraduate classes, in order to help students cope with balancing their busy schedules of classes, homework, jobs, and

extracurricular activities. In addition, online courses prepare students for future experiences in the 21st century workplace, in which online learn-on-demand courses are often used for continuing education, advanced certification, and professional development courses.

### **COURSE COMMUNICATIONS**

To take this course, you **must** have access to a computer with high speed Internet access, and you **must** use a UTK email account. You may use your own personal computer, or you may use the computers available in the various campus libraries or computer labs. The course software works well on either a PC or a Mac, but some students have found it works better to use Firefox, Safari, or Chrome as your browser, rather than Internet Explorer or Microsoft Edge.

Starting in this spring 2017 semester, all Information Studies & Technology minor (INSC) courses will use the new learning management system Canvas, instead of Blackboard Learn, which is being discontinued after the spring 2017 semester. The Online@UT link currently goes to a page with login icons for both Canvas and Blackboard. For this course, you will use the Canvas login to access the course site for many activities, including accessing recorded class sessions, posting your responses to discussion topics, obtaining assignment instructions, and other activities. Online@UT is available at [online.utk.edu](http://online.utk.edu).

Since Spring 2016, UT has used a virtual meeting application called Zoom to deliver online class sessions at UT, instead of Blackboard Collaborate. Zoom is much more simple to use from a student point of view, and attending our classes is similar to clicking on a YouTube video to make it play. An embedded link to each recorded class session will be made available through the course Canvas site. Each class session is an audio recording, illustrated by PowerPoint slides or other visual aids, created using screen sharing.

Whether you are an experienced online student, or have never had an online class before, be assured that you will be able to easily access the class sessions, and any tech glitches that may pop up can be successfully solved. I will give you specific access instructions by email when the first class session is released, but in general, to “attend” class sessions you can simply log into Canvas, click on the INSC 490 course site box in your Courses list, then click on the Pages link in the left side navigation bar. There will be a separate Page there for each class session. You will click on the Page for the class recording that you want to attend, and then click as usual on the video to play or pause the video as desired. **IMPORTANT: YOU MUST ACCESS THE SESSION RECORDINGS BY USING THE EMBEDDED VIDEO LINK ON THE CANVAS SITE “PAGES” IN ORDER TO BE SHOWN ATTENDING THE SESSION.** Accessing the recording directly from the Office 365 Video Channel will prevent your attendance from being tracked. The PowerPoint slides for each session will also be available for you to download or print out for taking notes. Feel free to explore the course Canvas site, to see what is available.

### **SUCCESS GUIDELINES FOR STUDENTS**

**Accept that you must be more self-reliant in an ADE class:** Although students are always responsible for knowing everything in the syllabus and complying with the requirements of the course, this is especially true for ADE. Try to manage your time well and let me know if you have any questions or are confused about an assignment or topic.

**Keep up with the weekly schedule outlined below:** Because the schedule is flexible, it may be tempting to wait to do the readings and assignments or listen to the lectures. It's difficult to catch up once you get behind. This class requires consistent work, but the workload should be easily manageable as long as you keep up with it.

**Be fully engaged in the opportunities to interact with your fellow students and the instructor.** Take advantages of opportunities to communicate via online tools such as course discussion boards and email.

### **STUDENT RESPONSIBILITIES**

- **Do all assigned readings prior to viewing each class lecture.** During the lecture, I'll assume you know the information that's in the readings, and I'll build upon that information.
- **Complete all assignments and submit them on time,** using the format and procedure specified.
- **Check your email and the course site regularly.** I'll use the course site to return assignments and make clarifications, and email to solicit student input. The course site will also be used for announcements, discussion, and other interactive activities.
- **Participate actively in the class** by giving your best effort to the interactive activities such as the course discussions. In addition, treat your colleagues with courtesy and respect by reading and reflecting on their online comments, and responding to them appropriately.
- **Timely online attendance is essential.** The course schedule below lists which class lectures you should complete at your convenience during each week. Canvas provides statistics about whether or not a student has "attended" a recorded class session, which allows me to "take roll" just as I would in a traditional class.

### **CONTACTING THE INSTRUCTOR**

The very best way to contact me is through email at [dpolloc2@vols.utk.edu](mailto:dpolloc2@vols.utk.edu).

Please don't hesitate to contact me if you have any questions, or need clarification about any of the course materials, lectures, or assignments. I am always here to help!

**Put INSC 490 at the start of your email subject line to bring it to my attention and ensure the quickest response.**

**Treat emails to your instructor as professional communication and use business email etiquette.** There is no need to be extremely formal, but always include a detailed subject line, appropriate address to your instructor, proper capitalization and spelling, and your name. I check my email at least once a day, and I will respond to your message as soon as possible, most likely within 24 hours.

**Do not wait until the last minute to ask questions related to course assignments.** Waiting until the day an assignment is due—and in particular, waiting until the final hours before the deadline—greatly increases your odds that I will not see and respond to your message in time to assist you.

### **OFFICE HOURS**

My office hours are from 2:00 – 4:00 p.m. on Tuesdays. This is a good time to stop by and ask questions or get clarification about course content and assignments. Please note this will not serve as a substitute for doing the course readings or attending the online lectures. You do not need to make an appointment to come to my office during office hours. If you are not on campus or otherwise unable to visit during office hours, contact me via email to make other arrangements.

### **DISABILITIES**

Any student who feels they may need an accommodation based on the impact of a disability should contact the Office of Disability Services (ODS) at 865-974-6087 in 100 Dunford Hall to document their eligibility for services. ODS will work with students and faculty to coordinate reasonable accommodations for students with documented disabilities.

### **CCI DIVERSITY STATEMENT**

CCI recognizes and values diversity. Exposing students to diverse people, ideas and cultures increases opportunities for intellectual inquiry, encourages critical thinking, and enhances communication and information competence. When all viewpoints are heard, thoughtfully considered, and respectfully responded to, everyone benefits. Diversity and fairness unite us with the wider professional and global community.

Additionally, class rosters and university data systems are provided to the instructor with the student's legal name and gender identification. I will gladly honor your request to address you by a preferred name and/or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

### **STUDENT EVALUATION**

The final grade will be based on:

	<b>Total Points Possible</b>
<b>Introductory Quiz</b>	<b>20</b>
<b>Face-to-Face Meeting</b>	<b>20</b>
<b>Discussion Posts (13 @ 20 points each)</b>	<b>260</b>
<b>Homework Assignments (3 @ 100 points each)</b>	<b>300</b>
<b>Exams (2 @ 100 points each)</b>	<b>200</b>
<b>Final Environmental Data Project</b>	<b>200</b>
<b>TOTAL</b>	<b>1000</b>

All projects, exams, and homework assignments are to be completed individually by each student.

## **Grading Scale**

A	94 -100% of possible points
A-	88 – 93%
B+	85 – 87%
B	82 – 84%
B-	78 – 81%
C+	75 – 77%
C	72 – 74%
C-	68 – 71%
D	58 – 67%
F	57% or below

**\*Note about grades: It's important that you complete all the assignments, and complete them on time. It's much better to do what you can on an assignment than to not turn it in. All of these assignments are designed to help you learn the material and be actively engaged in the course.**

## **ASSIGNMENTS**

### **1. Introductory Quiz**

This is a quick exercise designed to introduce you to the course, the contents of our course site, and the ways you will access the material throughout the semester. This is an easy way to make sure we're all on the same page. The quiz is worth 20 points.

### **2. Face-to-Face Meetings**

I would like to meet with each of you briefly face-to-face at the beginning of the semester. This short meeting is the only required meeting you will have with me, and will give you the opportunity to ask questions and get clarification about the course and course structure. Meetings will take place in my office in room 103 of the Communications Building unless other arrangements are made in advance. Face-to-Face Meetings are worth 20 points.

### **3. Discussion Posts**

For each of the thirteen lectures you will be required to make a short, reflective discussion post. At the end of each lecture, I will pose a reflection question. Visit the Discussions link, and answer the question in a short paragraph or two. **Your response must be at least 200 words.** Please include the word count at the end of your post. These will be due the Thursday of the week following each lecture. Each discussion post is worth 20 points.

### **4. Homework Assignments**

There will be three homework assignments in this course. These are intended to clarify and reinforce course concepts and provide the skills required for your environmental data project. All assignments should be submitted via Canvas. Detailed instructions for each assignment and how to submit it will be found under the Assignments link on the course site. Each homework assignment is worth 100 points.

### **5. Exams**

You will have two exams in this course. These are open-book, open-note exams that you will take online via Canvas. More information about the exams will be posted to the course site prior to the exam date. Each exam is worth 100 points.

### **6. Environmental Data Project**

As part of this course, each of you will “collect”, manage and summarize some kind of publicly available environmental data. The Environmental Data Project will be explained further separately, and a detailed summary will be provided.

See the Course Calendar at this end of this syllabus for due dates.

### **Late Assignments**

**Late assignments will not necessarily be accepted.**

Assignments that are accepted late will receive reduced credit of at least 10% of the total possible points for the assignment (i.e. a total possible score of 100 automatically becomes a 90). Assignments submitted more than one day late will earn a further reduction of 5% for each additional day beyond the due date an assignment is tardy (i.e. the possible credit for an assignment that is submitted 2 days late will be reduced by a total of 15%, 3 days late by 20%, and so forth).

**Assignments that are submitted more than 2 weeks (14 calendar days) after the due date will not be accepted.**

If you have an emergency situation or extenuating circumstances that prevent you from viewing classes or turning an assignment in on time, it is very important you contact me as soon as possible.

Note that Canvas does provide the date and time for every assignment submitted and every post made to the course site.

### **ACADEMIC INTEGRITY**

The University of Tennessee operates with a strict student code of honor regarding academic integrity. **All work submitted by a student must be that student's work.**

When you write for this class or when you find information through a search, remember that any sources you use must be credited and that materials from the Internet must be cited too. Use any standard style manual for citing sources as long as you are consistent in formatting the citations, although the preferred style for our college is APA (American Psychological Association) style. If you use someone's words or ideas without attribution - that's plagiarism. Remember, cheating and plagiarism are violations of scholarly and professional ethics and University policy; don't do it! It is never worth the risk; it is better to turn in C or D quality work that is your own, rather than to plagiarize.

**If you cheat or plagiarize, you will fail the assignment** and will actually increase your workload because of remedial assignments that you will then have to do. A second incident of plagiarism will

bring further penalties in accordance with University regulations, which may include failing the course or higher level academic sanctions. Further information is available in [Hilltopics](#), the UTK student handbook. Note that the instructor reserves the right to use plagiarism detection software.

### **ABOUT THE COURSE CALENDAR**

The next section of the syllabus has the course calendar. There may be changes and adjustments as the semester progresses, but I will give you plenty of notice in the event changes are made. Unless otherwise indicated, assignments are due by 11:59 p.m. Eastern Time on the due date listed.

### **NOTE**

**\*The instructor reserves the right to make changes to the schedule as needed. You will be notified of any changes in advance.**

## COURSE CALENDAR

Week	Dates	Topics	Assignments
1	1/11 – 1/13	Introduction to the Course	Discussion Post 1 (Due 1/19) Introductory Quiz (Due 1/26) Schedule a Face-to-Face Meeting by 2/3
2	1/16 – 1/20	A Brief History of Science Communication and Information Note: New materials will post 1/17 due to the holiday.	Discussion Post 2 (Due 1/26)
3	1/23 – 1/27	Core Science Concepts	Discussion Post 3 (Due 2/2)
4	1/30 – 2/3	Core Information Science Concepts	Discussion Post 4 (Due 2/9) <b>2/3 is the last day for Face-to-Face Meetings</b>
5	2/6 – 2/10	Environmental Information and the Public	Discussion Post 5 (Due 2/16) Assignment 1 (Due 2/23)
6	2/13 – 2/17	Big Data and the Environment: The 4 <sup>th</sup> Paradigm	Discussion Post 6 (Due 2/23)
7	2/20 – 2/24	Open Access, Data Sharing, Open Data	Discussion Post 7 (Due 3/2)
8	2/27 – 3/3	DataONE and the Data Lifecycle	Discussion Post 8 (Due 3/9) Assignment 2 (Due 3/23)
9	3/6 – 3/10	<b>Exam 1</b> <b>No lecture</b>	<b>Exam 1 Due 3/10</b>
10	3/13 – 3/17	<b>Spring Break Week</b> <b>No lecture</b>	<b>Have fun and be safe!</b>
11	3/20 – 3/24	Data Quality and Metadata	Discussion Post 9 (Due 3/30)
12	3/27 – 3/31	Finding and Using Environmental Information	Discussion Post 10 (Due 4/6)
13	4/3 – 4/7	Data Management Planning	Discussion Post 11 (Due 4/13) Assignment 3 (Due 4/20)
14	4/10 – 4/14	Introducing the Environmental Data Project	Discussion Post 12 (Due 4/20)
15	4/17 – 4/21	Transdisciplinary Research and Emerging Issues	Discussion Post 13 (Due 4/27)
16	4/24 – 4/28	<b>No new lecture. Work on final projects.</b>	<b>Final Projects due 4/28</b>
17	5/2 - 5/9	<b>Exam 2</b>	<b>Exam 2 Due 5/9 by 5pm</b>