UST 259- section 470: Natural History of Cleveland

Instructor: Jim Wyles

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Alternating Saturdays 9-4 beginning August 22, 2015

COURSE DESCRIPTION

This course is designed to introduce students to the natural history of the Cleveland metropolitan area. General geology, ecology, flora, and fauna of the Cleveland area; field trips to parks and museums to study local rock formation, forest types, and plant and animal identification will be included. This course is designed primarily for non-science majors and includes a laboratory component.

This course will focus on the characteristics of Ohio land, climate, and water, along with the natural landscapes present within the region, and finally we will examine the impact of humans on the region. We will use an interdisciplinary approach to explore spatial, geological, ecological, and physical aspects of the region.

This course is included in the Sustainability and Stewardship: Protecting the Future of the Planet, along with the Mysteries of the City Learning Communities.

COURSE GOALS

A primary objective of this course is to improve understanding of Ohio’s unique heritage and the complex factors that have influenced and created its natural history, along with the sustainability measures that are needed to protect the area’s future.
A second objective of this course is to create a participatory environment, through the laboratory component of the course and in-class exercises, where students can experience and see first-hand northeast Ohio’s rich natural heritage. Both course readings and field trips will encourage greater appreciation and improved conservation/resource management of our environment for both current and future generations. Students will gain practical experience in use of the scientific method in hypothesis testing and deductive reasoning.

*Talk to the Instructor as soon as possible if you are having trouble keeping pace with the class.*

By participating in this course, the student is expected to gain a better understanding of:

- Past and present state of the ecology of Northeast Ohio
- Geological and glacial history of the region
- Relationship between natural cycles and patterns and the influence of humans on the region
- Introduction to the scientific method and its applications

**GENERAL EDUCATION REQUIREMENTS**

This is a *Natural Sciences* course that fulfills the *General Education Breadth of Knowledge Skill Area* requirements in WRITING and CRITICAL THINKING.

A course approved for the Natural Sciences requirement must meet all of the following criteria:

Courses must foster general breadth of knowledge and develop foundational skills and abilities. The courses must be at the 100-200 level offered by one or more of the departments of natural sciences.

Courses must expose the student to all facets of the general scientific method used in natural sciences to build scientific principles in an effort to understand the natural world around us in a systematic and coherent fashion.
Courses must also contain components emphasizing tools and approaches that are critical in science inquiry including general experimentation design, precision, observation, data-driven reasoning and analysis, logic, and deduction.

To qualify in the skill area of writing a course must:

Designate that at least 15% of the student’s grade in the course is based on an evaluation of writing.

Include writing assignments that directly relate to the course goals.

Include instruction in writing-to-learn and/or writing-to-communicate. While writing to learn emphasizes the student’s experience, writing to communicate highlights the reader’s experience. Both are necessary to produce a thoughtful text that observes academic writing’s conventions.

It is also required that students write a total (including all written classroom assignments) of 2,000 words (8 pages, double-spaced, Times New Roman font, 12 pt font, 1” margins) in multiple assignments.

Assign writing throughout the semester.

COURSE FORMAT, ASSIGNMENTS, AND GRADING

COURSE FORMAT/ ATTENDANCE

Although this class may include lectures, multi-media presentations, field trips, guest speakers, class discussion, and group exercises, an emphasis will be placed on “active learning” techniques that cultivate a high level of student involvement. As such, regular attendance is required and is essential to success in the course. Unless otherwise specified on the syllabus or assignment sheet, you will need to attend class – and show up on time – to receive full credit for all assignments. Please inform the Instructor in advance of missing a class (by phone or email.)
ASSIGNMENTS/GRADING

Satisfactory performance will need to be demonstrated in the writing assignments in order to receive a passing grade for the class. All writing assignments must be submitted double-spaced, using 12 point Times New Roman font and standard 1” margins. Assignments can either be submitted in class, or emailed as a Word or .rtf format attachment prior to class. Note that paper length requirements do NOT include cover page or references.

Students are expected to complete the following assignments:

✓ Complete assigned readings each week, attend all class sessions and field trips.
✓ Keep & turn in a field notebook, containing notes, sketches, observations, & reflections.
✓ Complete written homework assignments as assigned.
✓ Write a 5-6 page research paper following the guidelines below.
✓ NO assignments will be accepted more than one class period past their due date. 10% will be taken off for assignments submitted one class period late.

FIELD TRIPS

This course does include field trips to nature centers, parks, and museums over the course of the semester. A part of this will include outdoor hikes up to one mile. Please dress appropriately in proper footwear and clothing for the weather! Students are also responsible for getting to and from the field trip locations. I strongly encourage you to carpool to save gas and money. I will help to coordinate this during class.

RESEARCH PAPER GUIDELINES

For this assignment, you may select one topic of interest discussed in the text, class, or field trips to explore further. This assignment is purposely open-ended to give you some freedom in choosing a topic of interest, but please choose carefully. Narrow your topic down to a very specific issue (e.g. “The impact of human settlement in the 20th century on the Cuyahoga River” Rather than “The impact of humans on Ohio”). Maintaining a very narrow focus will greatly improve your ability to comply with the assignment’s length.
This paper will conclude with a reference page, consisting of no less than five (5) different sources (articles, books, reports, book chapters, etc.). Of the references cited, only one may come from our required class readings.

**NOTE:** When using quotations in your writing, always set them off with quotation marks and appropriately cite the author. Also be sure to attribute credit to an author when paraphrasing information from a source. Paraphrasing is the act of restating the author’s words or ideas in your own words. Neglecting to do these things is PLAGIARISM and will result in a grade of ‘F’ for the assignment and potentially the entire course.

**It is a good idea to submit your work to the plagiarism detection service, [www.turnitin.com](http://www.turnitin.com), in order to double-check your work. I have set up a class login ID, 10305324, and password, browns, to access the turnitin site for the class.**

- When using internet sources during your research, only choose those which are reputable and scholarly.
- If it can’t be found in the CSU library, it probably isn’t a good source.
- For example, an online version of an article from the American Planning Association (APA) is a good source, but a citation from www.jennifersthoughts.net is probably a terrible source for research information!
- WIKIPEDIA is also NOT an academic source for citations.
- If you need additional guidance regarding how to construct a research paper, please access the resources provided below under *Optional Readings* and/or contact the CSU Writing Center.

Format your research paper using APA guidelines. If you need more information on how this is done, see: [http://library.csuohio.edu/research/vrd/citations.html](http://library.csuohio.edu/research/vrd/citations.html). Grammar, spelling, and language use will be graded along with content, so be sure to use spell check!

For students interested in additional writing assistance, the Writing Center is available and is highly recommended, located in Rhodes Tower Rm.105.
**YOUR FINAL GRADE IS BASED ON THE FOLLOWING ASSIGNMENTS:**

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Points</th>
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<tbody>
<tr>
<td>Attendance (5 points per class session= 2 on Saturdays)</td>
<td>80 points</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>100 points</td>
</tr>
<tr>
<td>Field Notebook</td>
<td>50 points</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>120 points</td>
</tr>
<tr>
<td>Research Paper/ Presentations</td>
<td><strong>100 points</strong></td>
</tr>
</tbody>
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Total Points Possible: 450 points

**Grading scale** is as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>92.51—100</td>
</tr>
<tr>
<td>A-</td>
<td>89.51—92.50</td>
</tr>
<tr>
<td>B+</td>
<td>87.51—89.50</td>
</tr>
<tr>
<td>B</td>
<td>82.51—87.50</td>
</tr>
<tr>
<td>B-</td>
<td>79.51—82.50</td>
</tr>
<tr>
<td>C+</td>
<td>77.51—79.50</td>
</tr>
<tr>
<td>C</td>
<td>69.51—77.50</td>
</tr>
<tr>
<td>D</td>
<td>60—69.50</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60</td>
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*NOTE*: This syllabus, and the course assignment due dates are subject to change at the Instructor’s discretion. You will be notified by a Blackboard Announcement of any changes.
ACADEMIC MISCONDUCT

Cheating or collaborating on assignments, plagiarism (copying others work in any form without proper reference and citation), or any other form of academic misconduct is strictly prohibited and will not be tolerated. Consequences for academic misconduct are based on university regulations, and are grounds for a grade of “F”.

The CSU Student Handbook defines plagiarism as “Stealing and/or using the ideas or writings of another in a paper or report and claiming them as your own. This includes but is not limited to the use, by paraphrase or direct quotation, of the work of another person without full and clear acknowledgement.”

Please refer to the university student handbook for further information, including penalties for plagiarism at http://www.csuohio.edu/studentlife/conduct/acadregs.html.

STUDENTS WITH SPECIAL NEEDS

“Educational access is the provision of classroom accommodations, auxiliary aids and services to ensure equal educational opportunities for all students regardless of their disability. Any student who feels he or she may need an accommodation based on the impact of a disability should contact the Office of Disability Services at 216-687-2015. The Office is located in UC304. Accommodations need to be requested in advance and will not be granted retroactively.” Students should notify the instructor as soon as possible if they have been granted an accommodation through the Office of Disability Services.

REQUIRED AND OPTIONAL READING MATERIALS

The following required text can be purchased (on aCD) at the CSU bookstore, or online. It is also be available at the University library or through the Ohiolink library system:

Ohio’s Natural Heritage. Michael B. Lafferty, Editor. Published by the Ohio Academy of Science, Columbus, OH. ISBN: 0-933128-02-9.

Other required course readings may be found on CSU’s Electronic Course Reserve (ECR), on Blackboard, or on the Internet, as directed by the course schedule below. CSU’s ECR is available at the following website: http://scholar.csuohio.edu/screens/m_course.html
Optional readings that may help you polish your writing skills are available at CSU’s University library Virtual Reference desk, accessible at: There you will find style guides, writing guides, dictionaries, and thesauri at your fingertips, including several guides on APA formatting style.

General Format for Classes
Meet from 9am-12noon for lecture, in-class activities, group projects, discussion.
12noon-1pm lunch and travel to field location
1pm-4pm Participatory presentation, hike, nature tour at field location
This format will vary when necessary.

Tentative Course Schedule and Weekly Reading Assignments

**WEEK 1. Meeting August 22**
Course Introduction, Lecture on Critical Thinking, Lecture on Scientific Method
Reading: Chapter 1 in text, Introductions, Assignment: Homework 1 and Homework 2-
*Field trip to Cleveland Natural History Museum* – independently to answer questions provided by the instructor

**WEEK 2. Meeting September 5**
Reading: pp.1-57 (Ch.1-4) Geology, Homework 2 Glaciation, Landform Regions
Homework 1 DUE, Assignment: Homework 3
*Field Trip: Rocky River Reservation Nature Center- meet at Nature Center- 1 pm*

**WEEK 3. Meeting September 19**
Reading: pp. 58-109 (Ch. 5-7) Climate, Topography, Soils, Forests
Homework 2 & 3 DUE, Assignment: Homework 4
*Field Trip: Garfield Hts Reservation - meet at Nature Center- 1:00 pm*

**WEEK 4. Meeting October 3**
Reading: pp. 110-157 (Ch. 8-9) Water, Prairies, Bogs, Fens, & Caves
Homework 4 DUE, Assignment: Homework 5
*Field Trip: Cuyahoga Valley National Park- meet at Everett Rd Bridge- 1:00 pm*

**WEEK 5. Meeting October 17**
Midterm Exam
WEEK 6. Meeting October 31
Reading: pp. 158-213 (Ch. 10-12) Hill country, Glaciated Plateau, & Till Plains
Reading: pp. 214-259 (Ch. 13-15) Lake Erie, Lake Plains, & Bluegrass
Homework 5 DUE, Assignment: Homework 6
Field Trip: Watershed Stewardship Center at West Creek Reservation- meet at 1 pm

WEEK 7. Meeting November 14
Reading: pp. 260-313 (Ch. 16-19) Impact of Humans
Homework 6 DUE
Field Trip: Ohio & Erie Canal Reservation- meet at 1 pm

WEEK 8. Meeting November 28
No class- Thanksgiving weekend

WEEK 9. Meeting December 12
Final Papers Due and Project Presentations