

OUR DIGITAL EARTH

GEOG 181

SPRING 2016

Welcome to OUR DIGITAL EARTH! This course is about you and your place *in the map*. We will examine how geospatial data are collected and used, how geospatial technologies have transformed the way we think and make decisions, and the important societal issues that result from the proliferation of new technologies. We will discuss the use of online mapping, satellite images, crowd sourcing, and mobile technologies for responding to natural disasters, galvanizing underrepresented communities, and embedding spatial information into our daily activities. Over the next 10 weeks, you will have an opportunity to learn different geospatial technologies such as web-based mapping software applications that allow you to create custom maps and create websites to communicate your work with the world over the Web. You will be empowered with the necessary skills to:

- create a mapping application for the campus community,
- develop a website that investigates the presence of food deserts in a US city,
- learn about disease outbreaks and geospatial analysis
- tell a GeoStory about something, somewhere.

I hope you enjoy the course!

INSTRUCTOR

Nicholas Perdue | Condon 161 | perdue@uoregon.edu

Office Hours: Monday and Wednesday- 1:00-2:00 in Condon 161

Kuan Wang | **Condon 161 | Office Hours:**

Labs Tuesday 12-12:50 / 1-1:50 | Condon 206

Joe Bard | Condon 161 | **Office Hours:**

Labs Tuesday 2-2:25 / 3-3:50 | Condon 206

LECTURES

Monday and Wednesday, 2:00pm – 3:20pm in McKenzie 129

TEXTBOOK

Shellito, B. 2012. Introduction to Geospatial Technologies (**Second Edition**). Freeman and Company; New York.

GRADING

Class Participation 10%

Labs 50%

Midterm Exam 20%

Final Exam 20%

EXPECTATIONS

- Submit your assignments on time. Late assignments will be penalized 5% per day. Assignments will not be accepted after 10 days past the submission deadline.
- Your final project will not be accepted after the submission deadline. You will receive a 0% if it is not submitted on the assigned deadline.
- We will not be providing a study guide for exams. It is your responsibility to create your own study guide by combining information from lectures, tutorial sessions and the readings.
- Do not plagiarize your work. Make sure that you give credit where credit is due. Please visit UO's Plagiarism website for more details: <http://library.uoregon.edu/guides/plagiarism/students/index.html>

SCHEDULE

WEEK 1 - INTRODUCTION

March 28

Lecture 1: Introduction to Course, Syllabus Overview

March 30th

Lecture 2: New Technologies – Film:

Reading: Chapter 1: Geospatial Data and GPS

WEEK 2 - DATA

April 4th

Lecture 3: Digitalizing Your Earth

Reading: Chapter 2: Where in the World Are You?

April 6th

Lecture 4: Go Find Yourself!

Reading: Chapter 4: Finding Your Location with the Global Positioning System

WEEK 3 - IMAGES

April 11th

Lecture 5: Our Earth From Space

Reading: Chapter 9: Remotely Sensed Images from Above

April 13th

Lecture 6: Image Interpretation

Reading: <http://theconversation.com/in-sea-of-satellite-images-experts-eyes-still-needed-53192>

(Read all links as well)

WEEK 4 - ANALYSIS

April 18th

Lecture 7: Analyzing the World

Chapter 5: Working with Digital Spatial Data and GIS & Chapter 7: Using GIS to Make a Map

April 20th

Lecture 8: Guest Lectures: Real-World Geospatial Projects

Reading: **No reading, Attendance required!!**

WEEK 5 – EVALUATION

April 25th

Lecture 9: Guest Lectures: Real-World Geospatial Projects

MIDTERM REVIEW

Reading: **No reading, Attendance required!!**

April 27th

MIDTERM

WEEK 6 – MAP DESIGN AND THE GEOWEB

May 2nd

Lecture 10: Map Design Principles

Reading: <https://somethingaboutmaps.wordpress.com/> and <https://cartastrophe.wordpress.com/>

May 4th

Lecture 11: Web Mapping

Reading: Haklay, M., Singleton, A., & Parker, C. (2008). Web mapping 2.0: The neogeography of the GeoWeb. *Geography Compass*, 2(6), 2011-2039.

WEEK 7 – CROWDSOURCING AND BIG DATA

May 9th

Lecture 12: Big Data

Reading: Wilson, M. W. (2015). Morgan Freeman is dead and other big data stories. *Cultural Geographies*, 22(2), 345-349.

May 11th

Lecture 13: Geospatial Crowdsourcing for Emergency Management

Reading: Goodchild and Glennon (2010). Crowdsourcing geographic information for disaster response: a research frontier. *International Journal of Digital Earth* 3: 231-241.

WEEK 8 – LOCATION BASED SERVICES

May 16th

Lecture 14: Mobile Mapping and Location Based Services

Reading:

NYT: "[Google's Road Map to Global Domination](#)" **and**

Wired: "[How Mobile and Social Are Creating New User Personas](#)"

May 18th

Lecture 15: Location-Aware Futures

Film - Next Future Wearable Technology

Reading: *The Guardian:* "[The future will eat itself: digesting the next generation of wearable tech](#)"

WEEK 9 – SOCIAL ISSUES**May 23rd**

Lecture 16: The Digital Divide

Reading: Crutcher, M., & Zook, M. (2009). Placemarks and waterlines: Racialized cyberscapes in post-Katrina Google Earth. *Geoforum*, 40(4), 523-534.

May 25th

Lecture 14: Privacy, Security, and Politics of Geospatial Technologies

Film: Geospatial technology in the world of security

Reading: Slate: "[The real problem with Google's new privacy policy](#)"

WEEK 10 – WRAP UP**May 30th**

No Class – Memorial Day

June 1st

Lecture 18: Future Directions

Chapter 15: What's Next for Geospatial Technology

Final Exam Review Session

FINALS WEEK**June 9th**

Final Exam: Thursday, 2:45PM

LABS

Lab 1 • Mapping Your City

Assigned: Thursday, April 3rd

Due: Tuesday, April 15th at 11:59pm

Lab 2 • Assisting Communities in Need

Assigned: Tuesday, April 15th

Due: Friday, April 25th at 11:59pm

Lab 3 • Find the Source of the Outbreak

Assigned: Thursday, May 1st

Due: Friday, May 16th at 11:59pm

Lab 4 • Storytelling with Maps

Assigned: Tuesday, May 20th

Presentations: June 3rd and June 5th

Due: Thursday, June 5th at 11:59pm