



## INSTRUCTOR

Jim Thatcher (he/him)

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Pinkerton 213

Office Hours: Tuesday 12:30-1:30; Thursday 3:00-4:30; and by appointment

## *Cartography and Data Visualization*

### COURSE DESCRIPTION

Maps are back, but look at what kinds! The rapid explosion in publicly available spatial information and a glut of new tools for the visualization of said data have resulted in a massive upswing in public interest in maps. Interactive and informative maps have become a staple of how individuals come to understand the world around them. However, at the same time, any data visualization remains inherently partial. In this class, students learn the fundamental principles of cartographic representation and data visualization. Working in a lab environment, students produce persuasive maps as a means of coming to understand how maps reveal, and conceal, the world around them.

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### LEARNING OBJECTIVES

Students who complete this course will:

- Gain an ability to ask critically informed questions about visualization and representation of data and information
- Be able to conceptualize and execute data visualizations using GISystems
- Design original visualizations
- Have a strong historical and contemporary understanding of the ways in which cartography and data visualization have and continue to influence the world

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### READINGS

- The course uses two textbooks: Kryger and Wood *Making Maps (3<sup>rd</sup> edition)* and Brewer's *Designing Better Maps (2<sup>nd</sup> edition)*.
- Additional articles may be distributed via Canvas as needed.

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### ASSIGNMENTS

- Labs (90% of course grade, 15% each)
  - Reading Discussion (10% of course grade)
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## **COURSE SCHEDULE**

### **Week 1 –**

**March 27<sup>th</sup>** - Introduction to the course and course objectives

**March 29<sup>th</sup>** - How and When to map?

**Readings:** Krygier and Wood, Chapters 1 and 2

### **Week 2 –**

**April 3<sup>rd</sup>** - The principles of map design – composition

**Readings:** Krygier and Wood, Chapter 6  
Brewer, Chapters 1 and 3

**April 5<sup>th</sup>** - **Lab 1: Map Composition**

### **Week 3 – NO CLASS**

### **Week 4 -**

**April 17<sup>th</sup>** - The principles of map design – text and color

**Readings:** Krygier and Wood, Chapters 11 and 12  
Brewer, Chapters 5, 6, 7, 8 (recommended!)

**April 19<sup>th</sup>** - **Lab 2: Text and Color**

### **Week 5 –**

**April 24<sup>th</sup>** - The principles of map design – Projection and Symbolization

**Readings:** Krygier and Wood, Chapters 5, 7, and 9  
Brewer, Chapter 2

**April 26<sup>th</sup>** - **Lab 3: A beautiful base map**

### **Week 6 –**

**May 1<sup>st</sup>** – Generalization and Abstraction

**Readings:** Krygier and Wood, Chapters 8  
Brewer, Chapter 9

**May 3<sup>rd</sup>** - **Lab 4: Reprojecting and Generalizing a Riverbed**

### **Week 7 –**

**May 8<sup>th</sup>** - Symbolization and Thematic Mapping

**Readings:** Krygier and Wood, Chapter 10  
Brewer, Chapter 9 (redux)

**May 10<sup>th</sup>** - **Lab 5: Choropleth and proportional symbol mapping**

## **Week 8**

**May 15<sup>th</sup>** - Map Publishing 1 – Paper Maps

**Readings:** Krygier and Wood, Chapter 3 and 4  
Brewer, Chapter 4

*See Canvas for additional articles*

**May 17<sup>th</sup>** – Lab 6: A web map (1)

## **Week 9 –**

**May 22<sup>nd</sup>** – Map Publishing 2 – Web and mobile visualizations

**Readings:** Krygier and Wood, Chapter 2  
Brewer, Chapter 4

*See Canvas for additional articles*

**May 24<sup>th</sup>** – Lab 6: A web map (2)

## **Week 10 –**

**May 29<sup>th</sup>** – How to lie with maps

**Readings:** *See Canvas for additional articles*

**May 31<sup>st</sup>** – Map Gallery

## **ACADEMIC STANDARDS**

Students at the University of Washington are expected to maintain the highest standards of conduct as required by state legislation. The integrity that will be required in your professional career should be practiced in your academic career. Academic misconduct is a serious offense that can have severe penalties including failing an assignment, failing the course, or dismissal from the university. Cheating includes turning in work that is not your own, using resources for exams or assignments when not permitted, or if you consult or collaborate with anyone on assignments that are meant to be completed individually.

You are guilty of plagiarism if you fail to cite the source of any idea that is not your own. Plagiarism can be avoided by using reference citations correctly. You are responsible for learning how and when to document and attribute resources used in preparing a written or oral presentation. If you have any questions, please ask me or consult the Writing Center.

## **E-MAIL POLICY**

UW policy requires you to use a UW e-mail account for communications with professors and to ensure that messages from the course website are received. For more information on setting up a UW NetID and email account, see:  
<http://www.washington.edu/computing/uwnetid>

## **DISABILITIES**

Disability Support Services (DSS) offers resources and coordinates reasonable accommodations for students with disabilities. Reasonable accommodations are established through any interactive process between you, your instructor(s) and DSS. If you have not yet established services through DSS, but have, or think you have a temporary or permanent disability that requires accommodations (this can include mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DSS at 253-692-4522 V/ 253-692-4413 / DSSUWT@UW.EDU

### **TEACHING AND LEARNING CENTER (TLC)**

The Teaching and Learning Center (TLC) in SNO 260 offers free academic support for students at all levels. Writing support is available at our online writing center. For math, stats and quantitative needs, assistance is available on a drop-in basis.

### **LIBRARY**

The UWT Library has resources, services and facilities to support students at all levels of expertise. We guide students through the research process, helping them learn how to develop effective research strategies and find and evaluate appropriate resources. For assistance or to schedule an appointment, visit us at the Reference Desk in the Library, email [tacref@uw.edu](mailto:tacref@uw.edu) or phone 253-692-4442.

### **STUDENT HEALTH AND WELLNESS - SHAW**

Confidential health services and counselors are available to help students cope with illness, health maintenance, stresses and personal issues.

### **CAREERS**

Assistance is available in career planning and job hunting at Career Development & Education.

### **FINANCIAL AID**

Information on tuition, financial aid and scholarships can be found online. You must make satisfactory academic progress to receive most forms of financial aid.

### **CAMPUS SAFETY INFORMATION**

The university-wide UW Alert system sends text messages of campus closures and emergencies.

### **INCLEMENT WEATHER**

In the event of bad weather, class may be canceled. Check the campus website or call 383-4636 to determine if campus is closed. If campus is open but conditions are bad, please check your e-mail, the course Canvas site, or call my office phone (253-692-5635) to determine if class will be held.