GEOG 141

The Geospatial Revolution

Syllabus - Spring 2023



Instructor: Douglas Miskowiak, GISP. Senior GIS Education Specialist

Office: Science B305 (Third Floor, Eastern Most Wing)

Office Hours: Wed 2pm to 3pm or Email to schedule office hours by appointment.

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Class Schedule: Section 1. Lecture. T, Th 2-2:50 PM Science B308.

Friday Virtual (Asynchronous)

Course Description:

Join the revolution by investigating our world from a geographic perspective using popular geospatial technologies. Explore the use of geographic information systems, remote sensing, drones, and global positioning systems among other geospatial tools, data, and concepts to arrive at well-informed decisions, designs, and policies that address perplexing societal issues and problems. Credits: 3 Prerequisites: None

Learning Outcomes: After taking this course, students will be able to...

- Describe how the matrix of geographic thinking is applied to problem solving.
- Describe the three domains of geographic synthesis.
- Describe the three geographic perspectives of space, place, and scale.
- Describe techniques of geographic representation and inquiry.
- Explain the process of geographic inquiry.
- Recognize contributions to geographic thinking through history.
- Recognize how geography has shaped the world's places, historical and modern.
- Examine modern geospatial technologies and their applications to solve societal problems.

Course Format: This course is taught in a hybrid format. Two class sessions each week are conducted face-to-face. One class session is held asynchronously with student activities. Course materials and content are delivered online, disseminated using Canvas. Lectures, reading materials, assignments, examinations, and other learning resources are available via Canvas. *Contact your instructor if you need assistance using Canvas*. The course consists of:

- 1. Attendance
- 2. Lectures
- 3. Online Learning Resources
- 4. Assignments
- 5. Discussions
- 6. Weekly Graded Quizzes
- 1. **Attendance:** Attendance is managed per the <u>UWSP attendance policy</u>. Attendance in the face-to-face classroom is mandatory. If you must be absent, please contact your instructor prior to the class you will miss. Professionally/academically related participation and engagement among students

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and between students and the instructor is an important part of the human learning experience. Attendance is worth 100 POINTS toward your final grade. Students who fail to attend the course on a regular basis (those who miss 25% of face-to-face opportunities) and who fail to regularly communicate excused absences with the instructor **will lose all attendance points** in the class.

Excused Absence: Attendance may be excused only if the student emails the instructor prior to the beginning of the anticipated missed class period with a legitimate explanation. The following provides a list of legitimate explanations:

- Required attendance of field trips or other academic activities for other classes.
- Academic or professional conference attendance.
- Required travel or activities for athletic events, theatre, dance, or other university related activities you participate in.
- Serious or contagious illness (a doctor's note may be requested).
- Death of a family member.
- Military service per UWSP attendance policy.
- Other reasons discussed and approved in writing by your instructor

Attendance Conduct: Be respectful to your peers and instructor. Attend class on time. Engage with your peers and instructor. Learning is greatly enhanced when students actively engage with their peers and instructor. Be ready to address questions from the lectures and learning resources.

Other Guidance:

- Please monitor your own health each day using this screening tool. If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
 - As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- 2. Lectures: Lectures concentrate on delivery of fundamental geospatial methods, constructs, and ideas. Lectures share the foundational body of knowledge and language to help you prepare for a career with the Geospatial Sciences or use the Geospatial Sciences in other career areas. Some lectures will share case study approaches about how geospatial technologies are applied and how they benefit society.

Lecture Expectations

- Attend every lecture
- Take your own personal notes to supplement the presentation
- Ask your instructor questions when you don't understand a topic
- Engage with your instructor and your peers share your own perspectives
- Student understanding of lectures will be assessed using examinations

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3. Online Learning Resources: Readings and other learning resources will be made available to students via Canvas. These resources will be organized by topical area. No book purchase or rental is required for this course. Online learning resources are a supplement to lectures and will offer ideas from other perspectives.

Online Learning Resources Expectations

- 1. Read or complete the resources associated with each lecture topic
- 2. Take your own personal notes to summarize and supplement the learning resource
- 3. Student understanding of online resources will be assessed using quizzes
- 4. Online learning resources will be part of the weekly discussion
- 4. **Assignments:** Ten required assignments will be distributed during the semester. Assignments range from 20-100 points each, for a total of 510 points. They will help you learn the nature of geospatial thinking and the process of geospatial problem solving and communication. One bonus assignment is available for extra credit.
 - 1. Explore ArcGIS Online Functions 25 Points
 - 2. Cognitive Maps Part 1 20 Points
 - 3. Map Use Location and Measurement 60 Points
 - 4. Cognitive Maps Part 2 30 Points
 - 5. Scalar Solutions Discussion 25 Points
 - 6. Logic of Geospatial Problem Solving 100 Points
 - 7. Geospatial Problem Solving Moose Lake Legacy Initiative 50 Points
 - 8. Geospatial Problem Solving Precision Agriculture 50 Points
 - 9. Geospatial Problem Solving Leveraging a Limited Police Force 50 Points
 - 10. Share the Geospatial Revolution Story Mapping 100 Points
 - 11. BONUS Construct a Realistic 3-D View 20 Points
- Online Fridays: Friday online sessions will typically be reserved for student asynchronous
 discussions, online learning, and assignment work. Discussions will focus on the lecture topic and
 assignment of that week.
- 6. **Weekly Graded Quizzes:** Quizzes will accompany lecture topics, case studies, and other learning resources to assess your comprehension of each week's learning materials. Each quiz is worth 25-50 points each for a total of 475 course points. Quizzes are administered on Canvas.

Quiz Expectations

- Complete the quiz by or before the due date
- No quiz will be reopened after the due date if you require more time to take a quiz, contact your instructor before the quiz closes.

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• Plagarism and cheating are NOT tolerated. You are expected to directly and personally take the quizzes, take the quizzes alone and without assistance from others. You are not allowed to witness another person taking the quiz. UWSP procedures will be followed if students are suspected of plagiarizing materials or cheating (see http://www.uwsp.edu/admin/stuaffairs/rights/rightsChap14.pdf). Penalties can include, but are not limited to failing the quiz, failing the course, and expulsion from the university. Please, do not risk your academic career.

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Evaluation and Grading: One-thousand total points are possible in this course. Students are graded based upon quizzes and assignments.

Weekly graded quizzes = 475 Points (25-50 points each)
Assignments 1-10 = 510 Points (20-100 points each)

Bonus Assignment = 20 Extra Credit Points

Total = 985 Points (1,005 Points with Extra Credit)

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