George Mason University
Geography and Geoinformation Science 384/684
Geospatial Intelligence Process & Information – Fall 2024

Bryan Weaver, PhD
Office Hours: By appointment. Contact bweaver5@gmu.edu

Class Time and location: Tuesday 7:20 – 8:45pm (start TUE August 27) *Exploratory Hall Room 2312*

About 40% of our course classes will meet via Zoom. The first 2 meet in classroom.

Course Purpose: We will expand our understanding of geospatial intelligence and associated geographic information science research areas through lecture, reading, reflection, and discussion. We will focus on GEOINT in the context of US National Security intelligence. Emphasis will be placed on the continuous evolution and future state of the intelligence process and information design patterns.

Course Description: We examine intelligence as an organization and as a dynamic process. We will do this through independent research that is guided by instruction and student research. The first three weeks we examine intelligence as an organization. We look at intelligence as a team activity at many scales. Then we examine geospatial intelligence as a process and the associated information outcomes. We look at unique information considerations not generally relevant in other spatial analysis problem domains. Throughout the course, we learn about significant events, collaboration challenges, and advancements in intelligence process and information.

Required Material: There are no assigned textbooks. Reading lists that consist of research publications, trade articles, and government publications will be provided each week.

Assignments and Grading Policy: All assignments will be posted to Blackboard in the appropriate module. Students will be graded based on the quality of their participation (20%), the quality of their written assignments (20% each), the quality of their independent research paper, presentation artifact, and presentation delivery (20%), and the quality of their team intelligence project presentation and delivery (20%). **All assignments are due submitted on Blackboard by 11:59pm the date it is due**. Students will lose one letter grade for every day an assignment is late. Attendance is expected every week, on time. Absence or late arrival to class (either virtual or in person class) will impact one's class participation score. Overall, high scores will result from student demonstrated mastery of the course material in written assignments and class-time discussion.

Class Schedule (subject to change):

Part I – Intelligence as an organization

August 27   Course Overview and Classmate Introductions

September 3   Overview of U.S. Intelligence Community and Geospatial Intelligence

September 10   ***Zoom***. GEOINT Organization: INTs, Workroles, and Organization

Part II – Intelligence as Process and information

September 17   A GEOINT Process and Information Outcomes

> ➢ **Due Sep 20: Assignment 1.**

September 24   ***Zoom***. Assignments Discussion - Independent Research & Project Assignment

October 1   Intelligence Problem Deconstruction and Plans

October 8   ***Zoom***. Collection and Primary Source Data

October 15   Observation, Analysis and Judgments

October 22   ***Zoom.*** Production and Products, Use and Feedback

Part III – Trends and Research

October 29   Guest Lecture – Dr. John Wall, Data Scientist

> ➢ **Due Nov 1: Assignment 2.**

November 5   Guest Lecture – Advanced Analytics

November 12   No Class – Work on Independent Research

November 19   ***Zoom***. **Independent Research Lightning Talks**

> ➢ **Due Nov 22: Independent Research Paper**

November 26   No Class. Happy Thanksgiving!

December 3   Class Summary and Capstone Discussion

December 10   ***Zoom***. **Team Presentations**
> ➢ **Due Dec 13: Team Project**

Technology Requirements:

Activities and assignments in this course will regularly use web-conferencing software (Blackboard Collaborate / Zoom). In addition to the requirements above, students are required to have a device with a functional camera and microphone. In an emergency, students can connect through a telephone call, but video connection is the expected norm.

Honor System and Code:

The Honor System and Code adopted by George Mason University will be enforced for this class: http://oai.gmu.edu/the-mason-honor-code/. In all written assignments, keep in mind that you may not present as your own the words the work or the opinions of someone else without proper acknowledgement. You also may not borrow the sequence of ideas, the arrangement of material, or the pattern of thought of someone else without proper acknowledgement. Please note: Faculty are obligated, without exception, to submit any Honor Code violations or suspected violations to the Honor Committee. COPYING AND PASTING FROM THE INTERNET IS AN HONOR CODE VIOLATION AND SUBJECT TO THE SANCTIONS OUTLINED BELOW. THIS RULE WILL BE STRICTLY ENFORCED FOR BOTH INDIVIDUAL AND GROUP WORK.

Summary of Course Grade Weightings:

Assignments = 20% each (400 pts)
Independent Research Project = 20% (200 pts)
Team Presentation = 20% (200 pts)
Class Participation (Live and Blackboard Discussions) = 20% (200 pts)

Grading Scale:

98-100% = A+
92-97.99% = A
90-91.99% = A-
88-89.99% = B+
82-88.99% = B
80-81.99% = B-
78-79.99% = C+
72-77.99% = C
70-71.99% = C-
68-69.99% = D+
62-67.99% = D
60-61.99% = D-
< 60% = F