

George Mason University
Geography and Geoinformation Science 684
Selected Topics in Geospatial Intelligence – Fall 2021

Bryan Weaver, PhD

Office Hours: By appointment. Contact bweaver5@gmu.edu

Class Time and location: Thursday 7:20 – 10:00pm (start is August 26) Exploratory Hall **Room 2312**

Be prepared each week to meet via zoom, vice in person, if COVID conditions worsen. If class is changed to virtual, students will receive at least a 24 hour prior-to-class notice by way of a Zoom invitation from the instructor.

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.

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. 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 an information gathering and analysis process. We look at unique information considerations not generally relevant in other spatial analysis problem domains. Throughout the course, we learn about significant events, organizational design, and advancements in the geospatial intelligence discipline.

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 during class-time dialog and via Blackboard discussions posts (20%), the quality of their written assignments (20%), their midterm exam score (20%), the quality of their independent research paper, presentation, and presentation delivery (20%), and the quality of their organizational leadership project presentation and delivery (20%). **All assignments, with the exception of class-time presentations, 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 and timely communication of independent, critical thought in both verbal contributions and written assignments.

Class Schedule:

Part I – Intelligence as an organization

- August 26 Course Overview and Classmate Introductions
- September 2 Overview of U.S. Intelligence Community and Geospatial Intelligence
- September 9 GEOINT Organization: INTs, Workroles, and Organization

Part II – Intelligence as information

- September 16 A GEOINT Meta Model and Tenets
- **Due Sep 17: Assignment 1. Critical review of US intelligence organization**
- September 23 Independent Research Project Assignment, Team Assignment, Midterm Discussion
- September 30 Intelligence Problem Decomposition
- October 7 Sensing the World
- October 14 Midterm Exam Assignment distributed (no class)
- **Due Oct 15: Miterm Essay Assignment.**
- October 21 Observation and Analytic Judgment
- **Due Oct 22: Assignment 2. Your design for the intelligence process**

Part III – Trends and Research

- October 28 Trends in GEOINT Analytics
- November 4 Intelligence Integration – Strategies, Processes, and Techniques
- November 11 Independent Research (no class for holiday)
- **Due Nov 12: Independent Research Paper**
- November 18 Topic TBD
- November 25 No Class. **Happy Thanksgiving.**
- December 2 Organizational Leadership Presentations
- **Due Dec 3 in class Zoom presentation: Organizational Leadership Team Presentation**

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% (200 pts)
Midterm Exam = 20% (200 pts)
Independent Research Project = 20% (200 pts)
Organizational Leadership 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