

George Mason University
Geography and Geoinformation Science 684
Selected Topics in Geospatial Intelligence – Fall 2020

Bryan Weaver, PhD

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

Class Time: Thursday 7:20 – 10pm (August 27 – December 3, 2020)

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 problems. 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.

Grading Policy: Students will be graded based on the quality of their class-time dialog and debate (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 are due at the beginning of class prior to lecture. 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 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.

Course Grade Weightings:

Assignments = 20%

Midterm Exam = 20%

Independent Research Project = 20%

Organizational Leadership Project = 20%

Class-time Participation = 20%

Class Schedule:

- August 27 Course Overview and Classmate Introductions
- September 3 Overview of Intelligence and Geospatial Intelligence
- September 10 U.S. National Security Intelligence Organization
➤ Due: Assignment 1. Critical review of US intelligence organization
- September 17 A GEOINT Meta Model and Tenets
- September 24 Emerging Trends – Independent Research Project
➤ Due: Assignment 2. Critical Review of the traditional intelligence cycle.
- October 1 Intelligence Problem Decomposition
- October 8 GEOINT Sources (Primary, other)
- October 15 Observation (review model, crowd sourcing, CV)
- October 22 Midterm Exam
- October 29 Trends in GEOINT Analytics
- November 5 Intelligence Integration – Strategies, Processes, and Techniques
- November 12 Emerging Trends – Independent Research Presentations
➤ Due: Independent Research Paper and Presentation
- November 19 Conveyance of Geospatial Intelligence
- November 26 No Class. Happy Thanksgiving.
- December 3 Organizational Leadership Presentations
➤ Due: Organizational Leadership Presentation