Syllabus OR 652 Military OR II – Effectiveness Analysis Fall 2013

Instructor: Dr. Andrew Loerch

Office: Engineering Building, Room 2103

Phone: (703) 993-1657 (O)

e-mail: aloerch@gmu.edu

Office Hours: Before or after class, or by appointment

Text: *Methods of Military Operational Analysis*, Loerch and Rainey, eds.

Available from the Military Operations Research Society (MORS) at https://netforum.avectra.com/eweb/shopping/shopping.aspx?site=mors&sh opsearch=methods&prd key=33910907-bd75-4aa3-84e5-cafb0d27fc41

Course Objectives: The purpose of this course is to introduce students to analytical methods for support of national security decisions. The course focuses on analysis at the military service and national levels. The student will have the opportunity to do cases studies on realistic problems, learn relevant techniques that are applies to standard military operations research problems, and to do a project on a national security issues. At the conclusion of the course, successful students will be familiar with a large set of national security problems, and will be able to work in a government agency or defense contractor that supports defense decision makers.

Topic Assignment

Introduction, Presentations, Defining the problem

Decision Analysis for Military Problems,

Affinity Diagram Read Chapter 19 Homework problem

Homeland Security – Defending the Network Homework to be assigned

Theater Campaign Modeling, Base of Sand Read Chapter 2, 3 JICM, THUNDER, CEM, TACWAR, GCAM Case Study #4

Equipment Modernization, Optimization Read Chapters 6 and 7, Case Study #1

L1Example

Strategic Mobility and Deployment Case Study #2

Read Chapter 9

Force Structure Analysis, Read Chapter 8

Small Scale Contingencies, MTOFs Read Chapter 4, Case Study #3

Logistics and Requirements, Army Example Read Chapter 12

Group Projects		Presentations
Grading:	Case Studies Final Exam Project	30% 30% 30%
	Class & Homework	10% 100%