

#### Course Description:

This course provides a broad introduction to fundamental principles of Command, Control, Communications, Computers, and Intelligence (C4I). The principles and techniques are applicable to a wide range of civilian and military situations. Modeling and simulation of combat operations are discussed. The sensing, fusion, and situation assessment processes are studied in detail. Optimal decision making rules are derived. The concepts of C4 architectures are discussed. Tools to evaluate and design C4 systems such as queuing theory are developed.

#### Prerequisite:

ECE528 or OR 542 or SYST611, or equivalent.

#### Course Assignments and Grading:

This course will have homework assignments, a take-home mid term, a take-home final exam, and a term project. They will constitute 25%, 25%, 25% and 25% of the grade, respectively.

#### Course Materials:

There is no required text. Supplementary readings will be assigned from handouts and additional references.

Instructor: Dr Rob Alexander is a Defense Analyst and retired Army officer. He is an adjunct professor in the Systems Engineering and Operations Research Department.