EDUCATIONAL SKILL REQUIREMENTS (ESRs)
APPROVED IN CONJUNCTION WITH 2011 CURRICULUM REVIEW
Operations Analysis (OA)
Subspecialty 3211
Curriculum 360

EDUCATIONAL SKILL REQUIREMENTS FOR: 3211 - Operations Analysis

1. Curriculum Number: 360
2. Curriculum taught at NPS.
3. Students are Fully Funded or Partially Funded: FULLY
4. Curriculum Length in months: 24 months
5. APC Required: 325

6. As a result of the 2011 Curriculum Review, the Human Factors and Joint Military Operations and Strategy ESRs have been removed.

NUMBERED ESRs

1. BASICS: The graduate will possess the mathematical and computer programming skills required to support graduate study in operations research and have the ability to use computers as a tool to aid in analysis.

2. PROBABILITY, STATISTICS AND DATA ANALYSIS: The graduate will be well-versed in the fundamentals of probability, statistics and data analysis for application to modeling, simulation, and analysis of military decision problems.

3. OPTIMIZATION: The graduate will be able to formulate and solve a wide variety of optimization problems and also be conversant with the major uses of such models in DoD and the private sector.

4. STOCHASTIC MODELING: The graduate will be able to formulate and solve problems involving stochastic processes (processes with uncertainty over time) and also be familiar with the major applications of such models.

5. SIMULATION: The graduate will be able to construct and utilize simulations of combat and other processes that evolve in
time, and will be able to deal with statistical issues associated with the need for replication.

6. ANALYSIS OF MILITARY OPERATIONS: The graduate will be familiar with U.S./Allied and potential enemy capabilities, doctrine, tactical and logistical support concepts. The graduate will be familiar with current Joint analytic tools and be able to model and analyze military operations using Operations Analysis techniques, and be able to develop new tactical concepts based on theory and exercise reconstruction and analysis.

7. SYSTEMS ANALYSIS: The graduate will understand the principles and applications of systems analysis as a basis for making key decisions on force requirements, weapon systems, and other defense problems.

8. PRACTICE: The graduate will have gained experience working in all aspects of an analytical study and will demonstrate the ability to conduct independent analytical studies and proficiency in presenting the results both orally and in writing.