FY13-15 EDUCATIONAL SKILL REQUIREMENTS (ESRs)
Operations Analysis (OA-E)
Subspecialty 3213
Curriculum 358

1. Curriculum Number: 358

2. Curriculum taught at NPS.

3. Students are Fully Funded.

4. Curriculum Length in months: 24 months. (21 month for MAS requirements + 3 months (1 QTR) to accommodate N1 JPME requirement.)

5. APC Required: 325

6. Operations Analysis Core ESRs. The officer must understand the fundamental concepts and be familiar with the basic functional areas of Operations Analysis within the Department of Navy (DoN) and the DoD including the following:

    a. BASICS (ESR #1): 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.

    b. PROBABILITY, STATISTICS AND DATA ANALYSIS (ESR #2): The graduate will be well-versed in applications of probability, statistics, and data analysis to the modeling and analysis of a broad range of military decision problems.

    c. OPTIMIZATION (ESR #3): 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.

    d. STOCHASTIC MODELING (ESR #4): The graduate will be able to formulate stochastic models; calculate measures of performance for them; and be familiar with major applications of such models.

    e. SIMULATION (ESR #5): The graduate will be able to employ simulation methods to model situations of interest to the defense community, be able to formulate, implement, explore, and analyze simulations, and make informed recommendations.

    f. SYSTEMS ANALYSIS (ESR #6): The graduate will be able to apply systems analysis concepts as a basis for making key decisions

on force requirements, weapon systems, and other defense problems, with particular emphasis in risk-benefit and cost-benefit analysis.

g. ANALYSIS OF MILITARY OPERATIONS (ESR #7): The graduate will have significant exposure to and be able to model and analyze military operations using operations analysis techniques to support concept development, tactics, and operations.

h. PRACTICE (ESR #8): 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.

7. Energy ESRs

a. (ENERGY-1): The graduate will have the ability to apply Energy principles as well as knowledge from Operations Analysis to the development and implementation of cost-effective energy technology development and acquisition programs throughout DON and DoD.

b. (ENERGY-2): The graduate will be able to analyze the strengths and weaknesses as well as cost and logistics implications of new energy technical proposals and suggest alternatives which recognize the potential impact on DoD/DON programs and objectives.

c. (ENERGY-3): The graduate will understand and be able to apply a range of Operations Analysis techniques (e.g. risk assessment and impact analysis) to RDT&E programs for platforms, systems and equipment that produce or consume energy.

d. (ENERGY-4): The graduate will have the ability to use and understand Energy systems in operations and logistics problem solving and cost analysis efforts specifically as they relate to existing and proposed DON/DoD Energy programs.

e. (ENERGY-5): The officer will be capable of understanding and evaluating the utility of Energy systems, technology, and programs currently employed by DON/DoD.

8. The Energy specific ESRs cited above received Community Manager endorsement in ref (e) and are unaltered in this review.

APPROVED: _____   11 OCT 2013
          Subject Matter Expert   (Date)

APPROVED: _____   28 OCT 2013
          Major Area Sponsor   (Date)
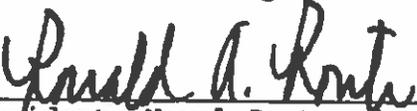
APPROVED: _____   21 Nov 2013
          President, Naval Postgraduate School   (Date)

APPROVED: _____   _____
          Director, IAD (OPNAV N15)   (Date)