2017 - 2018
EDUCATIONAL SKILL REQUIREMENTS
Human Systems Integration
4600P

1. Curriculum Number: 362

2. Curriculum taught at: Naval Post Graduate School

3. Students are: Fully Funded

4. Curriculum Length in months: 24

5. Months the program starts: September

6. APC Required: 335

7. Community Managers have agreed to allow billets to be coded for 4600 Human Systems Integration officers to be educated for this curriculum.

8. The goal of this curriculum is to educate Naval Officers of the United States Navy in Human Systems Integration. The delivery method is an in-resident program at the Naval Postgraduate School. Human Systems Integration (HSI) acknowledges that the human is a critical component in any complex system. It is an interdisciplinary approach that makes explicit the underlying tradeoffs across the HSI domains, and other engineering disciplines, logistics, acquisition, and Test & Evaluation (T&E), optimizing total system performance while minimizing total ownership costs. The graduate of this program will possess the knowledge, skills, and abilities necessary to function as a practitioner in HSI.

9. **HSI DOMAIN KNOWLEDGE:** Graduates will possess a thorough background in all HSI domains: Human Factors Engineering, Manpower, Personnel, Training, Safety and Occupational Health, Force Protection and Survivability, and Habitability. Graduates will understand the basis for the decisions made by individual domain specialists and will be familiar with the primary approaches and techniques used by each of the HSI domains.

Enclosure (5)

10. **ANALYTICAL TECHNIQUES:** Graduates will be able to perform tradeoff analyses across HSI domains and other acquisition disciplines (such as Systems Engineering (SE), T&E, and Logistics) and conduct empirical analyses within the domains of HSI. They will be able to apply, at the right place and at the right time, these analytical methods and tools in both field and laboratory settings within the context of the defense acquisition process.

11. **MODELING and SIMULATION:** Graduates will be able to apply Modeling and Simulation (M&S) techniques to explore HSI domain tradeoffs and tradeoffs across other acquisition disciplines, such as SE, T&E, and Logistics. They will demonstrate the ability to apply M&S techniques within and across the HSI domains to facilitate the acquisition, operations, and sustainment of military systems.

12. **HUMAN PERFORMANCE:** HSI maintains that the human is a critical component in any complex system. Graduates will understand the basis of both individual and team performance in military settings including human information processing, perception, cognition, decision making, and motor control. Graduates will understand current theory and practice in assessing cognitive factors that affect human performance such as attention, memory, situation awareness, stress, fatigue, and motivation. Graduates will understand current scientific knowledge of factors affecting human performance and human error.

13. **SYSTEMS APPROACH:** Graduates will comprehend the principles and practices of the fields of PM, SE, and logistics, and T&E as related to the DoD Acquisition Lifecycle. Knowledge of HSI contributions to PM, SE, and logistics, and T&E will enable graduates to positively influence the DoD Acquisition Lifecycle at appropriate times and in the right manner.

14. **IMPLEMENTING HSI TRADEOFFS:** Graduates will learn techniques to develop domain-level trades, as well as trades across other acquisition disciplines such as acquisition, T&E, and logistics. Graduates will become knowledgeable regarding the impacts of those trades and how they can inform assessments of risk to the acquisition program. In doing so, they will develop the ability to negotiate with, and communicate to, both technical and non-technical audiences.

15. **JOINT PROFESSIONAL MILITARY EDUCATION:** Students will be encouraged to complete the Joint Professional Military Education (JPME) program. This sequence of courses develops an understanding of warfighting within the context of operational art. Topics include: national military capabilities and command structure, joint and service doctrine, joint planning and execution, and joint multinational forces and integration at the operational level of war. JPME includes coursework in wargaming designed to develop an appreciation of the art of war.

APPROVED: _____ JUN 1 0 2016
VADM Ronald A. Route (Ret.), [DATE]
NPS President

APPROVED: _____ 5 July 2016
MR. D. R. MENZEN [DATE]
Director, (OPNAV N12)

Enclosure (5)