

REVISED SCIENCE AND TECHNOLOGY MANAGEMENT CURRICULUM'S IMPACT ON SYSTEMS ENGINEERS

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AGENDA

Introduction

What's changed

**How does this impact Systems
Engineers**

Wrap-up/Discussion

WHAT'S CHANGED

- **STM 101 – New course**
 - Content in old STM 202 updated
 - On line course
- **STM 203 – Renumbered course**
 - Old STM 303
 - 3 ½ days – scenario driven
 - Focused on technology development
- **STM 304 – New**
 - 3 ½ day course – with multiple exercises
 - Focused on portfolio management

STM 101

- **Basics of S&T management**
- **Builds on ACQ 101, 202**
- **Learning Objectives:**
 - Recognize the importance of Science and Technology to the Defense Acquisition System.
 - Identify DoD policy and guidance that impact Science and Technology programs.
 - Describe the factors that facilitate successful technology transition.
 - Recognize the business-related considerations that need to be addressed in Science and Technology planning.
 - Describe the stage-gate process and its associated tools used during execution of Science and Technology programs.

STM 203 – EXERCISE IN STM

- **Learning Objectives:**

- The student will be able to evaluate, plan and implement the technical and business elements for the initiation of a technology project.
- Given a scenario, students will be able to evaluate the best management practices to the execution of a technology project, ..., directly to the field or transferred to industry.
- The student will be able to evaluate progress, identify and plan for changing requirements and execute the technical and business elements to successfully complete transition to an acquisition Program of Record.
- Students will be able to analyze key issues related to transitioning technology to acquisition programs, evaluate methods to address these issues and make recommendations.

STM 304 – LEADERSHIP IN STM

- **New course focused on:**
 - Strategic planning
 - Roadmapping
 - Portfolio management
 - Assessing and prioritizing S&T projects
 - Coordination with user, PM

STM 304

- **Learning Objectives:**
 - Evaluate the theory of strategic planning for a technology organization and the current practices within the DoD
 - Explain the key steps in managing a S&T strategy
 - Apply the principles of technology roadmapping to a technology area
 - Given top-level strategic objectives, apply current DoD processes and best practices to construct leadership recommendations for a specific technology portfolio
 - Evaluate technology portfolio valuing and prioritizing techniques
 - Assess methods to address challenges in developing and managing technology portfolios

IMPACT ON SEs

- **STM leaders better tied into Defense Acquisition System**
- **Forces coordination**
 - Strategy Development
 - Roadmaps
 - Technology Transition Agreements
- **Opportunity to:**
 - Direct/control S&T efforts
 - Provide input into prioritization of support to S&T projects
 - Improve likelihood of successful technology transition



SUMMARY

- **STM Curriculum Update**
 - Improves professionalism of S&T managers
 - Provides opportunities for closer coordination between S&T and PM/SE leaders and staffs