COURSE DESCRIPTION

AFRL S&T Systems Engineering Process:
An Introduction for Program Managers, Scientists, and Engineers

By SynGenics Corporation

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This two-hour course provides participants with an introduction to the customized process chosen as AFRL’s Systems Engineering (SE) process of choice for Science and Technology (S&T) programs. Topics include the need for such a process, decision analysis approaches, application of SE to S&T and how it differs from SE practice later in acquisition, and the benefits of applying the essential elements of SE early in the acquisition cycle. The concept of Desirements, a key construct within the AFRL S&T SE Process, is carefully explained. The measures of merit, Desirability and Risk, are defined. The process steps are described and illustrated by example. The lecture covers application of the process to specific AFRL S&T programs and the results achieved. It concludes with a case study on the process applied to the Airdrop Flagship Capability Concept and with observations made by participants and Air Force leadership at the end of the study. Students become familiar with the process and understand how application of the process on a program helps bridge the gap between S&T development and technology transition.