**BENEFITS**

Systems Engineering is an interdisciplinary approach and means to enable realization of successful systems. By focusing on what the customer needs, how it should function, defining the requirements, and then design synthesis, validation, and verification, real solutions to complex problems can impact every type of system.

**COURSE OBJECTIVES**

Topics include requirements analysis, cyber risk analysis, secure system architecture and design, secure software development, secure networking, and the basics of cryptography. The course employs team teaching to ensure students benefit from outstanding expertise in all areas of content. Students will practice the principles taught in the course by developing a project of the individual student’s choice. Each student will complete an architecture project based on a system or enterprise of her or his choice!

Successful students will learn to:

- Effectively integrate Cybersecurity into the Systems Engineering process
- Interact with Cybersecurity specialists to employ robust and resilient secure system solutions
- Acquire a foundation by teaching and practicing the fundamentals of Cybersecurity in the Systems

**INSTRUCTOR BIO**

Dr. Borky has been a practicing engineer for 48 years, both as an Air Force Officer and in the Aerospace and Defense industry. His expertise includes electronic devices, avionics systems, logistics, and systems engineering and architecture. He is a pioneer in the field of Model-Based Systems Engineering (MBSE) and has applied architecture-centric methods to a wide variety of systems, including tactical aircraft, unmanned air systems, command and control systems, and airborne and space borne sensor platforms. He has taught at the Air Force Institute of Technology, UCLA, Wright State University, and other institutions. He is an Associate Fellow of the American Institute of Aeronautics and Astronautics and a Life Senior Member of the Institute of Electrical and Electronic Engineers.