System uncertainty is reduced using risk management. Identification, quantification, and management of risks are essential to every endeavor. Explore risks and risk management techniques by:

- Value risk management
- Incorporate risk management processes
- Identify and analyze risks
- Prioritize and map risks
- Plan for risk resolution
- Use risk management toolkits
- Explore decision analysis tools
- Use various strategies and approaches to risk management
- Explore case studies

**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**

- Identify and analyze risks
- Prioritize and map risks
- Plan for risk resolution
- Use risk management toolkits
- Explore decision analysis tools
- Use various strategies and approaches to risk management
- Explore case studies

**INSTRUCTOR BIO**

Dr. James Adams has 17 years of systems engineering experience in Department of Defense, satellite and aircraft systems, and, industry-leading, in-process, diameter and thickness gauging systems. Dr Adams has a diverse set of systems engineering experiences including as the customer for major satellite systems components, as the manager of a systems engineering team constrained by cost and schedule limits.

Dr. James Cale is an Associate Professor in System Engineering at Colorado State University in Fort Collins, CO. His research focuses on modeling, control and design optimization of energy sources and systems. His background and interests are in the areas of energy conversion, power electronics, finite-inertia power systems. Computational and applied electromagnetics, biologically-inspired optimization methods, microgrids, power hardware-in-the-loop, and machine learning algorithms.