

Systems Engineering is a well-developed body of knowledge, techniques, and methodologies used throughout technically complex industries. Its goal is to efficiently produce high-quality products that meet the requirements of customers with zero defects.

This certificate will teach systems engineering techniques that can be applied to a wide range of industries. You'll learn how to integrate the business and technical needs to the customer, and how to provide a quality product that meets the user's needs. This program is comprised of five required courses, focusing on the principles of systems engineering management, system requirements analysis, concept development and system integration and verification.

PROGRAM BENEFITS:

- Gain the skills for planning and executing the various phases of a project
- Learn techniques for risk management, systematic evaluation of cost, and management of schedule and performance uncertainties
- Reduce design changes by producing a clear and concise SOW
- Learn techniques applicable to various industries
- Program can be completed entirely online providing schedule flexibility
- Prepares students for INCOSE Systems Engineering Certification

REQUIRED COURSES: (CAN BE TAKEN IN ANY ORDER)

- · Systems Engineering Management
- · Systems Requirements Analysis
- · Systems Verification and Validation
- · Systems Engineering Software Overview
- Systems Hardware/Software Integration

ELECTIVE COURSES: (SELECT THREE - REQUIRED)

- Introduction to Systems Thinking
- Systems Engineering with OMG SysML™
- · Logistics I: Logistics Overview
- · LEAN Thinking for Big Data Analytics
- HSI I: Introduction to Human System Integration
- Introduction to System Safety
- Design and Applications of Unmanned Aerial vehicles (in-class only)

PROGRAM COST ESTIMATE

\$6,365.00

(excludes textbooks/materials)

FOR MORE INFORMATION

Richard J. Baran

Program Manager, Technology & Engineering unexengr@ucsd.edu | (858) 534-9152

