

SYSE 667

ADVANCED MODEL-BASED SYSTEMS ENGINEERING

Offered in Spring as needed

Prereqs: SYSE567

DESCRIPTION

This is the second of a two-course sequence in Model-Based Systems Engineering (MBSE). This course continues SYSE 567 by diving deeper into formal system architecting topics, modern tools, and research techniques for MBSE.

BENEFITS

Realizing the benefits of MBSE necessitates the use of a modern MBSE tool that supports formal modeling in Systems Modeling Language (SysML) and advanced techniques such as simulation and optimization. This course will show a modern SysML tool and further principles and techniques for handling increasingly complex systems.

COURSE OBJECTIVES

Topics include Cameo Systems Modeler, complexity, mathematical graph models, simulation, optimization, and open, secure, and agile system architecting.

Students successfully completing this course will be able to:

- Develop an expert level of skill in creating, modeling, analyzing, and maintaining system and enterprise architecture
- Use Cameo Systems Modeler to perform modern SysML-based MBSE activities
- Integrate advanced systems architecture concepts to their SYSE 567 course project

