SYS35000

SYSTEMS METHODS

This course focuses on using systems thinking, tools, and models to address complex real-world problems from various disciplines (biological, physical, social sciences, and engineering). Through case studies and computer simulations, students will analyze these systems and develop solutions. Assignments and projects will integrate diverse perspectives, encouraging students to contribute their own expertise. The course will also involve using software like Innoslate and NetLogo.

COURSE OBJECTIVE

The main goal of this course is to prepare students to use the systems methods to analyze and solve real-world problems.

COURSE TOPICS

Introduction to the Systems, Systems Thinking, System Dynamics, Systems Life Cycle, Systems Requirement Analysis, Agent-based Modeling, Functional Analysis, System Design Models, Business Model Canvas, Decision Making Models.

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