

# SYS 50000

## PERSPECTIVES ON SYSTEMS

This course will provide students with an introduction to various quantitative and qualitative approaches to systems, with case studies, concepts, and readings to support interdisciplinary project work.

✓ Interdisciplinary Approach

✓ Systems Thinking

✓ Project Based Learning

✓ Practical Application



### Topics Covered

- Complexity
- Systems Thinking
- System Dynamics
- Cybernetics
- Component-Whole integration
- Agent-based modeling
- Robustness and Resilience
- Deep Learning
- Generative AI
- Industry 4.0
- Internet of Things