Syllabus for SMGT 220 Systems Thinking

Course Description

This course introduces students to systems thinking, systems modeling techniques, and how these are used in addressing sustainability. Systems thinking aids in understanding the complexity and interconnectedness that makes many real-life situations difficult to manage. It is about understanding an issue by analyzing the whole, rather than the parts. It acknowledges that, as parts interact, their combined output can be both synergistic and emergent, making analysis of the parts independently insufficient for addressing sustainability.

Course Learning Objectives

- Understand the philosophical weaknesses of linear, reductionist, cause-and-effect thinking and the shortcomings of using one, or more, of these approaches for problem solving in a complex society.
- Identify systems within the issues addressed in work and life situations.
- Ascertain when and why systems thinking should be applied in certain settings.
- Understand causal loop diagrams, behavior over time graphs, and stock and flow diagrams and use these models to understand system dynamics.
- Demonstrate, through modeling, the impacts of feedback, time delays, and stocks and flows in systems.
- Identify recurring archetypes that occur in systems.
- Determine leverage points for intervening in systems.
- Understand and identify systems traps.
- Understand and apply systems thinking to address sustainability issues.

Course Materials

Information on course materials can be found in the textbook section of the SMGT website.

Course Requirements

Work must be submitted in order and by the due date to receive full credit.

Late assignments will be accepted without penalty if a legitimate excuse is provided in a timely fashion (preferably submitted in advance) to the instructor. The final decision regarding the acceptance of late work will be up to the discretion of the instructor.

Assignments that are submitted late that do not meet these criteria will be penalized 10% per day late.

In order to receive full points for a discussion topic, the student post needs to: address all portions and questions that are part of the discussion topic; stay on topic; and include references to relevant lecture and reading materials. Students also need to respectfully respond to at least two of their peers.

Each discussion is worth a total of ten points, which includes the responses to at least two other posts. Points are deducted for partial responses, omission of relevant parts of a discussion, and/or not responding to two peers' discussion posts.

Grading Policy

Assignments	290
Discussions	110
Final exam	100
Total Points Possible	500

A	94 - 100%
A-	89 - 93%
B+	84 - 88%
B	79 - 83%
B-	74 - 78%
C+	69 - 73%
C	64 - 68%
C-	59 - 63%
D+	54 - 58%
D	49 - 53%
D-	44- 48%
F	< 43 %