ISE 640 Fall 2004 Facility Layout and Location

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Hours: TTh 1:00 – 3:00 and by appointment
Prereq: Graduate standing
Etext: http://www.ent.ohiou.edu/~thale/chapter.pdf

Course objectives:

Overview of historical and modern facility layout and location problems, topics, and applications. For facility layout, an emphasis will be place on developing construction techniques. For facility location, an emphasis will be placed on understanding both basic planar and network facility location solution techniques. Reading and critiquing the recent literature in facility layout and facility location will also be emphasized.

Grade distribution:

Homework and quizzes	10%
First midterm	27.5%
Second midterm	27.5%
Final exam	35%

Homework policy:

No late homework will be accepted.

Make up midterms and final policy:

Only if university excused.

Attendance policy:

Attendance is not required but it is encouraged. Prior notification of absences is also encouraged.

Scholastic dishonesty policy:

At the discretion of the instructor, an F will be awarded for the first offense.

Inclement weather policy:

No one will be required to travel to and from class when safety is an issue.

Course topics:

Introduction: Facility layout and facility location are one and the same (notes)
A history of facility layout (notes)
Construction and improvement techniques of facility layout (notes)
The classical quadratic assignment problem for facility layout (notes and handout)
The relationship diagram and some associated construction techniques
A history of location science (eText and notes)
A taxonomy of facility location problems (eText and Brandeau and Chiu paper)
Single facility location problems on a plane (notes)
Single facility location problems on a network (notes)
Multiple facility location problems on plane (notes)
Multiple facility location problems on a network (notes)
Set covering, max covering, and minimax location problems (notes)
Advanced topics (journal papers and handouts)