

IE 321 - *FACILITIES LOCATION AND LAYOUT* Spring 2003 - Syllabus

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Web Site: <http://www.louisville.edu/~jsushe01/ie321.html>

Text: Tompkins, White, Bozer and Tanchoco, *Facilities Planning*, 3rd Edition, Wiley, New York, 2003.

Objectives:

1. To familiarize students with all aspects of facilities layout and location.
2. To equip students with tools for use in design of facilities.
3. To provide team-based design experience through real-world projects.

<i>Week</i>	<i>Topics</i>
1/13-1/15	Introduction, SLP, Input Data and Activities
1/20-1/22	No class
1/27-1-29	Activity Relationships, Layout Types, Flow Analysis
2/3-2/5	Relationship Diagramming, Layout Design
2/10-2/12	Personnel Requirements, Layout Evaluation Methods (G)
2/17-2/19	Computerized Layout Design (G), VisFactory (G) (2/19 in JB205)
2/24-2/26	(No class 2/24), HW review, Communicating Results
3/3-3/5	<u>Project 1 Presentations</u>
3/10-3/12	Exam 1 , Exam Review, MH Systems
3/17-3/19	<i>SPRING BREAK</i>
3/24-3/26	MH Systems Analysis and Selection
3/31-4/2	Conveyor Design, Line Balancing
4/7-4/9	Warehousing, Distribution, and Order Picking
4/14-4/16	Single Facility Location
4/21-4/23	<u>Project 2 Presentations</u>
4/28	Exam 2

Class Policies

All exams will be closed-book, closed-notes. A 4"x 6" note card will be allowed. All homework and project reports are due at the start of class on the day assigned. Late assignments will not be accepted, no exceptions. Working together to solve homework problems is allowed but the work you submit, must be your own. Copying another student's homework will be considered cheating and will be dealt with using the university's established policy on academic dishonesty.

<u>GRADING</u>		<u>COURSE GRADES</u>	
Exam 1	20%	90-100	A
Exam 2	20%	80-89	B
Project 1	20%	70-79	C
Project 2	20%	60-69	D
Homework/Quiz	20%	<60	F

PROJECTS

Two team-based design projects are required for successful completion of this course. Teams are chosen randomly by the instructor. You may not switch teams at any time. For each project, each team member must submit a statement indicating the percentage contribution of all other team members. This will help to ensure that everyone in the team contributes equally towards the completion of the assignment. It is the responsibility of the entire team, to ensure that the work is divided fairly among all members. If the other members of the team indicate that you have not done your fair share, your grade will be lowered accordingly.

1. Project 1 – START NOW

This project involves the solution of a "real-world" problem. The topic for this term project should be identified by the team as quickly as possible. Grading is as follows:

- (5 points) One page description of project due by noon on January 23rd.
- (70 points) Typewritten engineering report that documents the work performed.
- (25 points) Oral Presentation to class ~15 minutes, each team member must speak

2. Project 2 – Student Design Competition (\$\$\$)

This project can be downloaded from the following internet address:

http://www.mhia.org/et/et_mhi_cicmhe_activities_student_design.cfm

FORMAT FOR REPORTS

- Use 12 point, Times New Roman font
- Major Sections numbered 1, 2, 3, using Bold **ALLCAPS**, centered
- Sub-Sections numbered 1.1, 1.2, etc using Bold **Mixed Case**, left justified

Suggested Outline:

- **Letter of Transmittal**
- **Cover Page**
- **Executive Summary (1-page only)**
- **Table of Contents**
- **Introduction (Problem description, be specific)**
- **Current System (if applicable)**
 - **Operation and Analysis**
 - **Critique**
- **Proposed System**
 - **Design Methodology**
 - **Operations and Analysis**
 - **Results/List of Features**
 - **Cost Justification**
 - **Plan of Implementation (optional)**
- **Conclusions (rephrase and restate intro) and Recommendations**
- **Appendices (with supporting data, reference them in order)**