**Materials Handling and Plant Layout**

**ENG MGT 257/357 & MECH ENG 256**

**Spring, 2013**

**Class Meetings:** MW 1- 1.50 AM; BCH 314

**Lab:** W 2-3.50 AM in IDE 105

**Instructor**: Dr. Abhijit Gosavi **Office**: EMAN 219

**Office hours: M: 2-4**

Phone number: (573) 341-4624 Email: [gosavia@mst.edu](mailto:gosavia@mst.edu)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Course** **Objectives:** This course is designed to introduce you to the fundamental concepts related to *layout designing* and *material handling*. Our focus will primarily be on manufacturing facilities. We will concentrate on methods used in designing layouts of facilities in order to controlling costs of materials handling, increase efficiencies, and improve safety.

The course has five main components:

1. Layout-related topics for manufacturing: types of layouts, selection of layout type in a given scenario, ensuring flow of materials in a plant, group technology, and software for designing layouts
2. Material-handling equipment
3. Design of warehouses and offices
4. Location analysis
5. Layouts of airports and hospitals

We will use the textbook for the most part, but will also use some notes that will be placed online. You should be able to access these notes through your blackboard account.

The following is the textbook that we will use: *Facilities Planning and Design* by S. Heragu, Third edition.

**Course Contents: Chapters 1, 2, 3, 4, 9, 10, and 11.**

***Details:***

**Chapter 1: Primarily online notes, i.e., Chapter 0.**

**Chapter 2: All sections. Exercise Problems 6, 7, and 22.**

**Chapter 3: All sections. Exercise Problems: 8, 9, 10, 11, and 12.**

**Chapter 4: All sections.**

**Chapter 9: All sections except 9.6, 9.7, and 9.8.**

**Chapter 10: Online notes only.**

**Chapter 11: Online notes only.**

# Examinations and Labs

Laboratory Assignments: 20%

Lab 1: 5%

Lab 2: 5 %

Lab 3: 5% (CORELAP)

Lab 4: 5%

First Mid-term: 40% (Date: TBA)

Second Mid-term: 40% (Date: TBA) The exam will be comprehensive, i.e., will cover material from the entire semester.

**Important Dates:**

Feb 6: Lab 1

Feb 20: Lab 2

March 6: First Mid-term

March 13: St. Pat’s week

March 25-29: Spring Break

April 3: Lab 3

April 17: Lab 4

**Class Policies:**

1. Late assignments will not be accepted under normal circumstances.

1. A calculator will be allowed during the exams.
2. The final examination will be held as per schedule, and no adjustment will be made for any travel plans of students. Hence those students who want to leave the campus after the semester must make their plans according to the regular schedule of the university.
3. The rules regarding academic dishonesty are at: <http://registrar.mst.edu/academicregs>
4. *If you have a documented disability and anticipate needing accommodations in this course, you are strongly encouraged to meet with me early in the semester. You will need to request that the Disability Services staff* (<http://dss.mst.edu>) *send a letter to me verifying your disability and specifying the accommodation you will need before I can arrange your accommodation.*
5. The purpose of the Academic Alert System [http://academicalert.mst.edu](https://minermail.mst.edu/exchweb/bin/redir.asp?URL=http://academicalert.mst.edu/) is to improve the overall academic success of students by improving communication among students, instructors and advisors; reducing the time required for students to be informed of their academic status; and informing students of actions necessary by them in order to meet the academic requirements in their courses. I will use the academic alert system in case of problems.

***If you have any problems regarding the course, feel absolutely free to stop by my office during office hours or other times if you see me in the office. Otherwise send me an email to make an appointment. Good luck and have a wonderful semester!***