

Southern Illinois University

Facilities Planning

IT 392/IT 494c Syllabus

- I. COURSE NUMBER AND TITLE: IT 392/IT 494c, Facilities Planning
- II. CREDIT HOURS: 4 credit hours
- III. PREREQUISITE: NONE.
- IV. DESCRIPTION OF COURSE: Planning and preparing facilities layouts/plans to help and organization achieve effective and efficient supply chain processes. It includes topics in process improvement, flow/space/activity relationships, personnel requirements, and warehouse operations.
- V. TEXTBOOK: Facilities Planning, 3rd Edition, by Tompkins, J., White, J., Bozer, Y., and Tanchoco, J.M., John Wiley & Sons, Inc., Hoboken, NJ, 2003 (ISBN 0-471-41389-5)
- VI. COURSE OBJECTIVE:

The objective of this course is to provide students with the skills necessary to develop a facilities plan. The engineering design process includes plant layout and material handling principles. Various methods and techniques will be introduced and utilized to analyze the flow efficiency of a proposed plant layout which is the course product produced in the **IT494c**.

At the completion of this course the student should or will demonstrate

- design an efficient plant layout based on material flow and material handling equipment.
- make recommendations on improvements to existing plant layouts
- utilizing design flexibility to accommodate changes in product volume or product line.
- understand and be able to complete the following charts with regard to a specific product: assembly chart, route sheet, operations process chart, from-to chart & activity relationship chart.
- understand the information to determine the overall plant rate based on production volumes.
- know how to calculate equipment requirements for a specific process.
- understand the benefit of an efficient material handling system and understand what effect process layout has on the material handling system.
- determine the storage and warehousing requirements based on the type of product and demand characteristics for that product.

- VII. STUDENT RESPONSIBILITIES:
- a) All examinations must be taken at the scheduled time. If not, there will be an immediate 10% penalty and an additional penalty of 10% per week for every week they are late. Exceptions to this policy will be considered on a case-by-case basis. Please let the instructor know in advance (if possible) of any absences.

- b) All work submitted late MUST HAVE ATTACHED DOCUMENTATION to support why it's being considered for "late - excused" status. Failure to submit said documentation will be grounds for refusing such status by the instructor. Talking to the instructor in the hallway during break, etc. does not constitute "documentation".
- c) Students are expected to attend all scheduled classes. Students who are absent or late are responsible for arranging to make up for missed materials (i.e.: lecture notes, instructor handouts, etc.)
- d) Assigned class readings are required prior to attending class. Lectures will supplement, but not replace, assigned readings. Instructor's notes are available via e-mail from instructor. These notes are for the convenience of the student to follow along with the lecture (relieving the clerical burden) and are NOT a replacement for the text.
- e) Students are expected to conduct themselves professionally and courteously at all times in the classroom. Students are expected to show respect for all others, and dysfunctional behavior will not be tolerated. All classroom disruptions will be handled in accordance with school policies.

VIII. INCOMPLETES:

It is the policy of the professor not to give Incomplete grades. Occasionally, one realizes that events do occur which may merit the awarding of an Incomplete. In accordance with written university policy, an Incomplete grade will not be granted for any reason in a case where the student would not pass the course if all unfinished assignments were converted to zero points. Effectively, this means that you have to have completed around 75% of the course to even be considered for an Incomplete. In the event that the student feels an incomplete is applicable in their case, it is their responsibility to document the reason in writing and to secure it's approval. If you fail to complete this step, an Incomplete will not be granted. Talking to the instructor on the phone, or in the hallway, does not constitute "in writing".

IX. STUDENT EVALUATION:

- a) Two examinations will be given at the times indicated under the "Schedule of Activities". Examinations will cover the reading assignment (theory), material presented outside the text material (supplemental material), and in-class problems.
- b) Grading will be based on the assignments noted above. The final grade will be based on the following:

Exam 1	100 pts	A	90 - 100%
Exam 2	100 pts	B	80 - 89%
Project	<u>100 pts</u>	C	70 - 79%
	300 pts total	D	60 - 69%
		F	< 60%

- X. INSTRUCTOR: Dr. Daniel G. Jacobson, Jr.
(618) 974-1762 (Cell - Call before 9PM)
danjake87@charter.net (Usually check every evening.)

- XI. INSTRUCTOR AVAILABILITY: Your instructor is available to meet before, during, and after scheduled class periods or at a mutually-agreed upon time and place.

XII. SCHEDULE OF ACTIVITIES:

SESSION	DAY	SUBJECT	CHAPTER
I	Sat.	Introduction	1
		Product, Process, & Scheduling Design	2
		Flow, Space, & Activity Relationships	3
	Sun.	Personnel Requirements	4
		Material Handling	5
		Layout Planning Models (tentative)	6
II	Sat.	Exam 1 (2 hours)	
		Warehouse Operations	7
		Manufacturing Systems	8
	Sun.	Facilities Systems	9
		Exam Prep	-
III	Sat.	Exam II (2 hours)	
		Project work time/guidance	-
	Sun.	Project work time/guidance	-

Project turn-in

The instructor reserves the right to make deviations from the course schedule as needed. **Before taking a makeup exam, be sure you're studying the correct material.**