

# IE 6302-004 Fall 2015

TR 5:30PM-6:50PM - Room 239 COBA

Instructor: Dr. Karthik Ayodhhiramanujan

Phone: 214-364-5616

GTA: Juan Marco Castillo

Phone: To Be Announced

Office: To Be Announced

Email: karthik@transsolutions.com

Office Hours: Before and after class (other times by appointment as requested)

Required Text: Facilities Planning. Tompkins, White, et.al. John Wiley, 4th edition, 2010.

## **Course Description IE6302 --FACILITIES PLANNING AND DESIGN 3- Lecture Hours • 0 Lab Hours**

Facilities planning through layout design. Product flow, space-activity relationships, personnel requirements, and material handling are considered, as well as receiving, shipping, warehousing, and integration with manufacturing. Facilities planning models are explored. Prerequisite: IE 5317 or equivalent, IE 5301 or concurrent, and IE 5329, or concurrent or equivalent.

### **Course Learning Goals/Objectives:**

This course is designed to develop facilities planning and layout skills, including the ability to apply quantitative methods to decision-making in the areas of selecting, preparing, presenting, and implementing facilities plans. These skills have broad applications and can be useful for the planning and design of a manufacturing enterprise, hospital, airport, warehouse/distribution center, etc.

By the end of the course, you should be able to:

- Explain the “Winning Facilities Planning Process”
- Determine product, process, and schedule design interactions & develop personnel requirements
- Analyze flow, space, and activity relationships with impact to material handling and layout alternatives
- Integrate receiving, shipping, warehousing with manufacturing and supporting operations
- Apply standards of professional and ethical responsibility
- Prepare and present a detailed facilities planning project report and layout documenting all steps taken (Define problem, Generate alternatives, Analyze, Select) + Justification of your final recommendation.

### **General Policies/Guidelines:**

- Class attendance is expected – “showing up” is the first step toward excellence in any endeavor.
- If you require an accommodation based on disability, I would like to meet with you in the privacy of my office, during the first week of the semester, to make sure you are appropriately accommodated.
- Part of the course grade will be based on a term project (with oral presentation) in a relevant area of mutual interest to instructor and student. We will explore specific topics early in the semester to allow sufficient time for proper research and project preparation.
- If you miss an exam with an approved excuse (e.g. from a doctor stating you are too ill to attend class), you may take a comprehensive final as a makeup.

Copyright © 2013 K.J. Rogers as to this syllabus and all lectures and materials. Students are prohibited from selling (or being paid for taking) notes during this course to or by any person or commercial firm without my express written permission. As the instructor for this course, I reserve the right to adjust this schedule in any way that serves the educational needs of the students enrolled in this course. –K.J. Rogers

- **Course Evaluation & Final Grade:** Grades are based on performance. No curves planned. Students are expected to keep track of their performance throughout the semester and seek guidance from available sources (including the instructor) if their performance drops below satisfactory levels.
  - Course grade will be comprised of performance on exams and projects.  
Exams 75%  
Projects 25%  
Homework will be assigned. More of practice towards the exams. Homework could include critical thinking exercises such as case study, and/or critiquing a journal paper. **May** use your participation in these activities to up your grades.
  - Performance standard: D  $\geq$  60%, C  $\geq$  70%, B  $\geq$  80%, A  $\geq$  90%

### **Key Dates:**

10/6 Project plan including MSProject due at beginning of class

10/8 1<sup>st</sup> Midterm Exam (Chapters 1-5 + additional relevant material)

11/10 2<sup>nd</sup> Midterm Exam (5-7 + additional relevant material)

11/24 Final Project Reports & Presentation Slides Due at the beginning of class.

12/15 Final Exam (Chapters 7 - 12 + additional relevant material) [11:00AM-12:30PM]

**Emergency Exit Procedures:** Should we experience an emergency event that requires us to vacate the building, students should exit the room and move toward the nearest exit, which is located immediately next to the classroom door. When exiting the building during an emergency, one should never take an elevator but should use the stairwells. Faculty members and instructional staff will assist students in selecting the safest route for evacuation and will make arrangements to assist handicapped individuals.

### **Key Assignments**

During the semester one or more assignments will be designated as key assignments. To pass this class you must successfully complete all key assignment requirements. Key assignments and their respective grading criteria will be announced in each particular course. Late key assignments will be accepted for completing the class but may not be accepted for the course grade depending on the instructor's policy. In summary, if you do not successfully complete all key assignments, you will receive an incomplete (X) in the class.

**Drop Policy:** Students may drop or swap (adding and dropping a class concurrently) classes through self-service in MyMav from the beginning of the registration period through the late registration period. After the late registration period, students must see their academic advisor to drop a class or withdraw. Undeclared students must see an advisor in the University Advising Center.

Drops can continue through a point two-thirds of the way through the term or session. It is the student's responsibility to officially withdraw if they do not plan to attend after registering. Students will not be automatically dropped for non-attendance.

Repayment of certain types of financial aid administered through the University may be required as the result of dropping classes or withdrawing. For more information, contact the Office of Financial Aid and Scholarships (<http://web.uta.edu/ses/fao>).

**Americans with Disabilities Act:** The University of Texas at Arlington is on record as being committed to both the spirit and letter of all federal equal opportunity legislation, including the Americans with Disabilities Act (ADA). All instructors at UT Arlington are required by law to provide "reasonable accommodations" to students with disabilities, so as not to discriminate on the basis of that disability. Any student requiring an accommodation for this course must provide the instructor with official documentation in the form of a letter certified by the staff in the Office for Students with Disabilities, University Hall 102. Only those students who have officially documented a need for an accommodation will have their request honored. Information regarding diagnostic criteria and policies for obtaining disability-based academic accommodations can be found at [www.uta.edu/disability](http://www.uta.edu/disability) or by calling the Office for Students with Disabilities at (817) 272-3364.

**Academic Integrity:** All students enrolled in this course are expected to adhere to the UT Arlington Honor Code: I pledge, on my honor, to uphold UT Arlington's tradition of academic integrity, a tradition that values hard work and honest effort in the pursuit of academic excellence. I promise that I will submit only work that I personally create or contribute to group collaborations, and I will appropriately reference any work from other sources. I will follow the highest standards of integrity and uphold the spirit of the Honor Code. Per UT System Regents' Rule 50101, §2.2, suspected violations of university's standards for academic integrity (including the Honor Code) will be referred to the Office of Student Conduct. Violators will be disciplined in accordance with University policy, which may result in the student's suspension or expulsion from the University.

**Student Support Services Available:** UT Arlington provides a variety of resources and programs designed to help students develop academic skills, deal with personal situations, and better understand concepts and information related to their courses.

Resources include tutoring, major-based learning centers, developmental education, advising and mentoring, personal counseling, and federally funded programs. For individualized referrals, students may visit the reception desk at University College (Ransom Hall), call the Maverick Resource Hotline at 817-272-6107, send a message to [resources@uta.edu](mailto:resources@uta.edu), or view the information at [www.uta.edu/resources](http://www.uta.edu/resources).

**Electronic Communication Policy:** UT Arlington has adopted MavMail as its official means to communicate with students about important deadlines and events, as well as to transact university-related business regarding financial aid, tuition, grades, graduation, etc. All students are assigned a MavMail account and are responsible for checking the inbox regularly. There is no additional charge to students for using this account, which remains active even after graduation. Information about activating and using MavMail is available at <http://www.uta.edu/oit/cs/email/mavmail.php>.

**Distance Education Policies:** The Industrial & Manufacturing Systems Engineering Department offers most graduate IE courses on-line through streaming-video and Blackboard. This allows graduate students in the IE Program who are enrolled off-campus or part-time to access their classes at their convenience. Log on using your netID and password at <http://elearn.uta.edu> for access to class notes and assignments. A distance student is defined as a student enrolled in the distance section (typically "002" or "003") of an IE course. Please visit the IMSE website [http://www.uta.edu/ie/distance\\_education\\_policy.html](http://www.uta.edu/ie/distance_education_policy.html) for details. Pay special attention to Policy #2: Distance students are required to communicate with the faculty before the second class period. This "first contact" helps insure that the distance student is not left behind at the beginning of the semester.

I look forward to hearing from all distance students via email soon.

**Student Feedback Survey:** At the end of each term, students enrolled in classes categorized as lecture, seminar, or laboratory shall be directed to complete a Student Feedback Survey (SFS). Instructions on how to access the SFS for this course will be sent directly to each student through MavMail approximately 10 days before the end of the term. Each student's feedback enters the SFS database anonymously and is aggregated with that of other students enrolled in the course. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law; students are strongly urged to participate. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** A period of five class days prior to the first day of final examinations in the long sessions shall be designated as Final Review Week. The purpose of this week is to allow students sufficient time to prepare for final examinations. During this week, there shall be no scheduled activities such as required field trips or performances; and no instructor shall assign any themes, research problems or exercises of similar scope that have a completion date during or following this week unless specified in the class syllabus. During Final Review Week, an instructor shall not give any examinations constituting 10% or more of the final grade, except makeup tests and laboratory examinations. In addition, no instructor shall give any portion of the final examination during Final Review Week. During this week, classes are held as scheduled. In addition, instructors are not required to limit content to topics that have been previously covered; they may introduce new concepts as appropriate.

**Librarian to Contact:** Sylvia George-Williams [sylvia@uta.edu](mailto:sylvia@uta.edu)

**Subject guide for IMSE:** <http://libguides.uta.edu/IMSE>

\*\*\*\*\*IE6302\*\*\*\*\*