

**IE 6302-001 Fall 2018**  
**Facilities planning and Design**  
**TTH 11:00AM-12:20PM – Room NH 105**

**Instructor:** Dr. Maysaa Hamdan

**Contact:** Email: [maysaam.hamdan@uta.edu](mailto:maysaam.hamdan@uta.edu)

Office: 420W

**Office Hours:** Tuesday and Thursday by appointment

**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** The course covers strategic 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.
- ☐ **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      60%

Projects    20%

Quizzes    20%

☐ Performance standard: D ☐ 60%, C ☐ 70%, B ☐ 80%, A ☐ 90%

**Key Dates:**

10/11 Project plan including *MS Project* due at beginning of class

10/16 Midterm Exam (Chapters 1-6 + additional relevant material)

11/27 Final Project Reports & Presentation Slides Due at the beginning of class.

12/6 Final Exam (Chapters 7 - 12 + additional relevant material) [11:00AM-12:30PM]

**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://wwwb.uta.edu/aao/fao/>).

**Disability Accommodations:** UT 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)*, *The Americans with Disabilities Amendments Act (ADAAA)*, and *Section 504 of the Rehabilitation Act*. 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 disability. Students are responsible for providing the instructor with official notification in the form of **a letter certified** by the Office for Students with Disabilities (OSD). Only those students who have officially documented a need for an accommodation will have their request honored. Students experiencing a range of conditions (Physical, Learning, Chronic Health, Mental Health, and Sensory) that may cause diminished academic performance or other barriers to learning may seek services and/or accommodations by contacting: **The Office for Students with Disabilities, (OSD)** <http://www.uta.edu/disability/> or calling 817-272-3364. 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).

**Counseling and Psychological Services (CAPS)** [www.uta.edu/caps/](http://www.uta.edu/caps/) or calling 817-272-3671 is also available to all students to help increase their understanding of personal issues, address mental and behavioral health problems and make positive changes in their lives.

**Non-Discrimination Policy:** The University of Texas at Arlington does not discriminate on the basis of race, color, national origin, religion, age, gender, sexual orientation, disabilities, genetic information, and/or veteran status in its educational programs or activities it operates. For more information, visit [uta.edu/eos](http://uta.edu/eos).

**Title IX Policy:** The University of Texas at Arlington (“University”) is committed to maintaining a learning and working environment that is free from discrimination based on sex in accordance with Title IX of the Higher Education Amendments of 1972 (Title IX), which prohibits discrimination on the basis of sex in educational programs or activities; Title VII of the Civil Rights Act of 1964 (Title VII), which prohibits sex discrimination in employment; and the Campus Sexual Violence Elimination Act (SaVE Act). Sexual misconduct is a form of sex discrimination and will not be tolerated. *For information regarding Title IX, visit [www.uta.edu/titleIX](http://www.uta.edu/titleIX) or contact Ms. Michelle Willbanks, Title IX Coordinator at (817) 272-4585 or [titleix@uta.edu](mailto:titleix@uta.edu)*

**Academic Integrity:** Students enrolled all UT Arlington courses 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.*

UT Arlington faculty members may employ the Honor Code in their courses by having students acknowledge the honor code as part of an examination or requiring students to incorporate the honor code into any work submitted. 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. Additional information is available at <https://www.uta.edu/conduct/>. Faculty are encouraged to discuss plagiarism and share the following library tutorials <http://libguides.uta.edu/copyright/plagiarism> and <http://library.uta.edu/plagiarism/>.

**Electronic Communication:** 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>.

**Campus Carry:** Effective August 1, 2016, the Campus Carry law (Senate Bill 11) allows those licensed individuals to carry a concealed handgun in buildings on public university campuses, except in locations the University establishes as prohibited. Under the new law, openly carrying handguns is not allowed on college campuses. For more information, visit <http://www.uta.edu/news/info/campus-carry/>

**Student Feedback Survey:** At the end of each term, students enrolled in face-to-face and online classes categorized as "lecture," "seminar," or "laboratory" are directed to complete an online 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 via the SFS database is aggregated with that of other students enrolled in the course. Students' anonymity will be protected to the extent that the law allows. UT Arlington's effort to solicit, gather, tabulate, and publish student feedback is required by state law and aggregate results are posted online. Data from SFS is also used for faculty and program evaluations. For more information, visit <http://www.uta.edu/sfs>.

**Final Review Week:** for semester-long courses, 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.

**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 individuals with disabilities. If you have a physical/sensory disability, please discuss your needs for

assistance in the event of emergency evacuation with the instructor in private within the first two weeks of the semester.

Students are encouraged to subscribe to the MavAlert system that will send information in case of an emergency to their cell phones or email accounts. Anyone can subscribe at <https://mavalert.uta.edu/> or <https://mavalert.uta.edu/register.php>.

**Active Threat:** Information on options for an active threat are provided at the end of this syllabus.

**Student Support Services:** 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 <http://www.uta.edu/studentsuccess/success-programs/programs/resource-hotline.php>.

**The IDEAS Center** (2<sup>nd</sup> Floor of Central Library) offers **FREE** tutoring to all students with a focus on transfer students, sophomores, veterans and others undergoing a transition to UT Arlington. Students can drop in, or check the schedule of available peer tutors at [www.uta.edu/IDEAS](http://www.uta.edu/IDEAS), or call (817) 272-6593.

**The English Writing Center (411LIBR):** [Optional.] The Writing Center offers **FREE** tutoring in 15-, 30-, 45-, and 60-minute face-to-face and online sessions to all UTA students on any phase of their UTA coursework. Register and make appointments online at <https://uta.mywconline.com>. Classroom visits, workshops, and specialized services for graduate students and faculty are also available. Please see [www.uta.edu/owl](http://www.uta.edu/owl) for detailed information on all our programs and services. The Library's 2<sup>nd</sup> floor Academic Plaza offers students a central hub of support services, including IDEAS Center, University Advising Services, Transfer UTA and various college/school advising hours. Services are available during the library's hours of operation. <http://library.uta.edu/academic-plaza>.

**Inclement Weather Policy:** If the University is closed, this class will not meet. Any scheduled lecture materials or examinations will be rescheduled to the next class period that the class meets. You can get information about closures by checking the main website at [www.uta.edu](http://www.uta.edu).

<p><b>Emergency Phone Numbers:</b> In case of an on-campus emergency, call the UT Arlington Police Department at <b>817-272-3003</b> (non-campus phone), <b>2-3003</b> (campus phone). You may also dial 911. Non-emergency number 817-272-3381.</p>
--

**Students are prohibited from copying, transferring ownership or selling any of the materials obtained and any notes taken during this course to any person or organization without the express written permission of the instructor developing this course. Students may print downloaded lecture materials for their own use only. Students are prohibited from being paid to take notes during this course for any person or organization.**

#### **Course Sched**

**Course Schedule:** Note: As the instructor for this course, I reserve the right to adjust this schedule when required and in any way that serves the educational needs of the students enrolled in this course. Changes to the syllabus and associated schedule will be discussed in class and an updated


syllabus will be posted in Blackboard. Students must comply with any changes to the syllabus once notified by the instructor.

Date		Topics
R	23-Aug	Course overview+ Ch1 Strategic Facility Planning
T	28-Aug	Ch2 Product, Process and Schedule Design
R	30-Aug	CH 1 & CH2 HW
T	4-Sep	Ch3 Flow, Space, & Activity Relationships
R	6-Sep	Ch3 Flow, Space, & Activity Relationships
T	11-Sep	Ch3 HW CH4 Personnel Requirements
R	13-Sep	Ch4 HW
T	18-Sep	Ch5 Material Handling
R	20-Sep	Ch5 HW+ Material handling Videos
T	25-Sep	<b>UTA Engineering Career Fair (10:00am-3:00pm)</b>
R	27-Sep	CH6 Layout
T	2-Oct	CH6 HW + <b>Project Team formation</b>
R	4-Oct	<b>Pro- Planner software</b>
T	9-Oct	<b>Pro- Planner software</b>
R	11-Oct	Project plan+ review for exam
T	16-Oct	<b>Midterm Exam</b>
R	18-Oct	Review midterm exam +Team meeting
T	23-Oct	Project Data + project review
R	25-Oct	WERC Conference + project team meeting
T	30-Oct	Ch 7
R	1-Nov	Ch 7
T	6-Nov	CH 7 HW
R	8-Nov	Project Discussion Q&A
T	13-Nov	Ch 8
R	15-Nov	ch 9+10+11+12
T	20-Nov	Project Team Meeting
R	22-Nov	<b>Thanksgiving Holiday</b>
T	27-Nov	Project Due + HW session + review
R	29-Nov	Presentations
T	4-Dec	Last Day -Review
R	6-Dec	<b>Final Exam - 11:00am - 12:30pm</b>

# Stop. Think. Protect Yourself. You Have Choices.

The safety and security of our campus is the responsibility of everyone in our community. Each of us has an obligation to be prepared to appropriately respond to threats to our campus, such as an active aggressor.

This graphic provides each member of the UTA community with information and options for responding to an active threat. These options are not chronological, but are designed to address dynamic situations. Assess the situation (your location, the location of the threat, type of threat, etc.), identify and weigh your options, develop a plan of action and commit to it.

YOUR OPTIONS TO AN ACTIVE THREAT	
You Have Choices!	
<b>A V O I D</b>	<ul style="list-style-type: none"> <li><b>AVOID</b> the situation. <u>Stay away</u> from the area and campus.</li> <li>If you can safely leave the area, RUN.</li> <li>Get others to leave the area, if possible.</li> <li>Prevent others from entering the area.</li> <li>Know your exit and escape options.</li> <li>If in a parking lot, get to your car and leave.</li> <li>If in an unaffected area, stay where you are.</li> <li>When you are safe, call UTA PD at 817.272.3003 or 911 with information you have.</li> </ul>
<b>D E N Y</b>	<p>If you can't leave the area safely, <b>DENY</b> or slow entry to the intruder:</p> <ul style="list-style-type: none"> <li>Lock/barricade doors with heavy items.</li> <li>Turn off lights/projectors/equipment.</li> <li>Close blinds and block windows.</li> <li>Stay away from doors and windows.</li> <li>Silence phones and <b>remain quiet</b>. <u>Don't let your phone give you away.</u></li> <li>HIDE and take cover to protect yourself.</li> <li>Be prepared to run or defend yourself.</li> </ul>
<b>D E F E N D</b>	<p>If you can't AVOID or DENY entry to the intruder, <b>DEFEND</b> your location:</p> <ul style="list-style-type: none"> <li>As a last resort, <u>FIGHT for your life.</u></li> <li>Use physical force and any weapons available - fire extinguishers, books, chairs, belts, umbrellas, pens/scissors, hot coffee/drinks, trash cans, etc.</li> <li>Use the element of surprise.</li> <li>Work together as a team. Develop a plan. Commit to your actions. Your life depends on it.</li> <li>Be aggressive, loud, and determined in your actions.</li> </ul>
<p><b>Follow ALL instructions.</b></p> <p><b>For more information, go to: <a href="https://police.uta.edu/activeshooter">police.uta.edu/activeshooter</a></b></p> <div>  <p><b>THE UNIVERSITY OF TEXAS AT ARLINGTON</b></p> </div> <div> <p>Emergency: 817.272.3003</p> <p>Non-Emergency: 817.272.3381</p> <p><a href="https://police.uta.edu">police.uta.edu</a></p> </div>	

Additional information for active threat and other emergency situations can be found through the links below:

[police.uta.edu/activeshooter](https://police.uta.edu/activeshooter)  
[police.uta.edu/em](https://police.uta.edu/em)