Course title and number  ISEN 405 Facilities Design and Material Handling
Term (e.g., Fall 200X)  Fall 2016
Meeting times and location  TBD

Course Description and Prerequisites
Principles of facilities location, layout, and material handling systems and to practice designing facilities; modeling, design, and analysis techniques; methodologies in facilities location, layout, and material handling; integration of ergonomics analysis techniques and their implications on design, layout, safety and quality.
Prerequisites: ISEN 210 and ISEN 320

Learning Outcomes
Students should be able to
• apply algorithms and analytical procedures for facilities layout planning,
• apply fundamental principles of material flow and handling,
• design layouts incorporating product, process, and personnel requirements; and
• improve writing, presentation, teamwork and general communication skills

Instructor Information
Name  TBD
Telephone number  TBD
Email address  TBD@tamu.edu
Office hours  TBD
Office location  TBD

Textbook and/or Resource Material
Supplemental Material: Taxonomy of material handling equipment for use in both production facilities and warehouses. http://mhwebportal.org/taxonomy
Grading Policies

<table>
<thead>
<tr>
<th>Grading Policy</th>
<th>Grades</th>
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<tbody>
<tr>
<td>Homework/Quizzes</td>
<td>20% A: ≥ 90%</td>
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<tr>
<td>Exams</td>
<td>35% B: 80% - 89%</td>
</tr>
<tr>
<td>Projects</td>
<td>35% C: 70% - 79%</td>
</tr>
<tr>
<td>Communication/Participation</td>
<td>10% D: 60% - 69%</td>
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<td>F: ≤ 60%</td>
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Communication Emphasis: Clear and effective communication will be stressed throughout the semester, including in-class (participation), on projects (team reports and presentations) and on all written assignments (homework, quizzes, exams). Guidelines and expectations on communication will be provided to the students at the beginning of the semester.

Exams will be given throughout the semester. Each exam will be written during one class period and will cover the topics/material of the course covered to the date the exam is written.

Projects will be worked throughout the semester, requiring the integration and adaption of course material to various layout, handling and location problems. Projects will be collaborative and team-based. Project grades will be assessed based on a comprehensive portfolio that indicates the team’s decision-making and progress. A self/peer review will also be submitted by each team member for each project worked. A project rubric will be posted by the instructor prior to each project.

Homework and short quizzes will be assigned throughout the semester to reinforce course content covered or to introduce additional/complementary course content.

Attendance and Make-up Policies

Class attendance is not optional. You are expected to attend all class lectures except for university excused absences.

All written exams are graded and recorded and must be written on the day indicated in this syllabus with the only exceptions being (1) revision of the exam date by the instructor, (2) a student’s absence for a University Excused reason (University excused absences are determined based on Rule 07 of the Student Rules found at http://student-rules.tamu.edu/rule07), or (3) prior approval by the instructor. In the case of (3), you are encouraged to notify the instructor as soon as any conflict is realized.

Project due dates will be assigned in class and all project portfolios must be submitted on-time.

No late homework will be accepted under any circumstances with the exception of University approved absences. No missed quizzes will be made-up with the exception of University approved absences.

Course Topics, Calendar of Activities, Major Assignment Dates

<table>
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<tr>
<th>Week</th>
<th>Topic</th>
<th>Required Reading</th>
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Facilities Planning Introduction

Product Process, Schedule and Design

Product Process, Schedule and Design continued

Product Flow and Layout

Product Flow and Layout continued, Exam 1. Project 1 due.

Layout Planning and Alternatives

Layout Planning and Alternatives continued. Midterm project report due

Storage and Retrieval without uncertainty

Storage and Retrieval with uncertainty

Material Handling, Exam 2. Project 3 due.

Material Handling continued

Facilities Systems

Facilities Systems continued

Planning Evaluation, Ethics and Ethos. Project 3 due (this will be a complete portfolio including projects 1,2,3).

Other Pertinent Course Information

The course will use computational tools to solve larger problems. Handouts for MATLAB will be provided. Students are expected to apply prior knowledge of MATLAB in this course.

Americans with Disabilities Act (ADA)

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu
Academic Integrity

For additional information please visit: http://aggiehonor.tamu.edu

“An Aggie does not lie, cheat, or steal, or tolerate those who do.”

Upon accepting admission to Texas A&M University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning and to follow the philosophy and rules of the Honor System. Ignorance of the rules does not exclude any member of the Texas A&M University community from the requirements or the processes of the Honor System. For additional information please visit: http://student-rules.tamu.edu/; http://student-rules.tamu.edu/aggiecode; and http://student-rules.tamu.edu/rule20. The complete information of university regulations regarding the handling of academic misconducts (including the appeal process) can be found at http://aggiehonor.tamu.edu/.

I, <insert instructor name>, as the rest of the Industrial & Systems Engineering Faculty, uphold the Aggie Honor Code as an axiom of our academic excellence. We consider its sincere observance to be essential for membership in our department and Texas A&M. We extend you the trust conferred to those who faithfully adhere to our honor code. Abuse of this trust is intolerable, thus I will report and assign an extreme penalty to those who do not stand with us in preserving the integrity symbolized by the Aggie Honor Code, “An Aggie does not lie, cheat, or steal or tolerate those who do.”

In this course the penalty for any violation of the Aggie Honor Code, as minimal as it may be, is F*.