Overview
The course is designed to provide a perspective on the biomechanics of work. Emphasis will be placed on understanding the static mechanics of human exertions and its relationship with musculoskeletal injury and human performance. Application of theories and methods to job analysis, the design of the work-place, and design of tools will be described and illustrated by substantial examples.

Textbooks
   Donald B. Chaffin (The Univ. of Michigan, Center for Ergonomics, Ann Arbor)
   Gunnar B. J. Andersson (Rush-Presbyterian-St. Lukes Medical Center, Chicago, Illinois)
   Bernard J. Martin (The Univ. of Michigan, Center for Ergonomics, Ann Arbor)
   Available at local and online bookstores

2. IOE 534 Coursepack
   ON LINE

Home work
- Respect **Honor code** at all times (general discussion is ok but all works are one team only or individual)
- At least a week between assignment and due date is provided.
- As I provide feedback rapidly and exams can follow due dates, late HWs are not accepted unless extenuating circumstances are justified ahead of a due date.
- Four homework assignments. Three are team work and one is INDIVIDUAL .
- It is preferable to provide typed HWs. Poor presentation in any written material will be penalized.
- See **Schedule** for assignments and due dates.
Laboratory

- A lab course ([IOE 691](#)) (2 credit hours) is offered in conjunction with IOE 534 and you are encouraged to take it. (Not offered every term)
- The goal of the laboratory is to illustrate the main concepts presented in formal lectures by hands-on experiments and computation examples.
- Small groups of students perform five experiments and write a technical report for each.
- No exams are given.
- Class time is approximately 3 hours per week, day and time flexible and to be determined according to student schedule.

Grading

Scale system [100-90=A+, 90-85=A, 85-80=A-, 80-75=B+, 75-70=B,..]

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team HW Projects 1,2B and 3</td>
<td>24%</td>
</tr>
<tr>
<td>Oral presentation of HW3</td>
<td>6%</td>
</tr>
<tr>
<td>Individual HW Project 2A</td>
<td>10%</td>
</tr>
<tr>
<td>Mid Term Exam 1</td>
<td>20%</td>
</tr>
<tr>
<td>Mid Term Exam 2</td>
<td>15%</td>
</tr>
<tr>
<td>Final Examination</td>
<td>25%</td>
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Exams

- Respect [Honor code](#) at all times
- Each exam is preceded by a brief review (come prepared to ask questions)
- Mid term exams strictly focus on material presented in the lectures preceding the exam.
- Final exam: 1 part recent course material; 1 part comprehensive (integration of material presented over the whole semester)
- If you miss (or have to miss) an exam, due to extra-ordinary circumstances, see me in advance or as soon as possible

YES! everything presented can be on an exam
YES! you have to memorize a lot of material,
YES! you have to perform computations (do not forget your calculator)
YES! you have to use the appropriate vocabulary
YES! The exams are closed books
YES! A grading mistake is possible, you can submit your exam for a revision

EXCEPTIONS: religious holidays (let me know in advance); extenuating circumstances,

Lectures

- Everything presented is important
- Each lecture is focused on a central concept (or strongly related concepts)
- Many new words (read the book before lectures to become familiar with vocabulary and concepts)
- Interaction is encouraged