

**EDMM 3150: Work Analysis and Design Lab
Course Syllabus**

Catalog Data

Methods engineering and measurement of human work systems. Techniques for operation analysis, work measurement, and work sampling. Predetermined basic motion-time systems and standard data development are introduced. NOT FOR ENGINEERING CREDIT.

Prerequisites by Topic:

1. Basic knowledge of methods engineering, measurement of human work systems, techniques for operational analysis, work measurement, and work sampling. Working knowledge of basic predetermined motion-time systems and standard data development are expected.
2. Effectively communicate (written and oral).
3. Basic knowledge of word processing, spreadsheets, Internet, and e-mail.

E-learning:

General Communications, course contents and grades will be available on e-learning website.

Objectives¹:

In accordance with the above stated course description, at the conclusion of the semester the students should have the ability to:

1. Apply the knowledge skills and abilities learned in Work Design (EDMM 3050) and apply them to an industry-based problem.

A course project is to be developed to study this industry-based problem. The objectives of this project is to select a process and/or workstation, perform an in-depth evaluation, document all characteristics and problems, and make appropriate recommendations. Completed project will be delivered in a double spaced typed report (~25 pages) and a Power Point presentation.

Textbook:

- Konz & Johnson. Work Design, Occupational Ergonomics. Holcomb Hathawa.
- Niebel, Benjamin, and Freivalds, Andris \. Methods, Standards, and Work Design. McGraw Hill, Twelfth Edition. (*Reference*)

Schedule of Topics (tentative):

Week	Class Topic/Activity
W.2	Introduction, Class Objectives, Forming Groups (2-4), Project ideas and Examples
W.3	Reading I Discussion. The interview process. Engineering Design (Chapter 4)
W.4	Project Definition - Reading II Discussion - Guidelines for Midterm Presentation
W.5	Weekly reports, office hours
W.6	Weekly reports, office hours
W.7	Weekly reports, office hours
W.8	Midterm Presentation
W.9	Guidelines for Draft and Final Report - Projects Feedback - Weekly reports
W.10	Weekly reports, office hours
W.11	1st Draft Due (optional), Weekly reports, office hours
W.12	<i>Thanksgiving recess</i>
W.13	Weekly reports, office hours
W.14	Semester Project Reports and Presentations Due

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Grading:

Points Distribution:

Project Definition	10%
Midterm Presentation	15%
Written Report (Final)	25%
Final Presentation	25%
Weekly Reports & Assignments	15%
Peer Evaluations	10%

Commented [LC1]: 1-page statement with name of sponsor and problem(s) to address. Individual meeting with instructor. Grade will be reduced with time after deadline.

Commented [LC2]: Power point presentation

Commented [LC3]: As new topics are learned in IME 3050, then the team should apply them to their project or justify why they will not be used.

Grade Scale:

A: 90-100; BA: 87-89.9; B: 80-86.9; CB: 77-79.9; C: 70-76.9; DC: 65-69.9; D: 60-64.9; E: Below 60

Performance Criteria:

The students should have the ability to:

Objective 1

- 1.1 Accurately define a problem and its corresponding constraints.
- 1.2 Function as a productive and effective member of a team.
- 1.3 Document work in a scholarly manner.
- 1.4 Document reasonable recommendations accompanied by justification acceptable within the profession.
- 1.5 Present information and ideas in a professional manner.

Computer Usage:

Use of PC based software (Word, Excel, Power Point) and access to internet is required for the project. All tools/techniques will make use of these technologies in one form or another.

Oral and Written Communications:

Appropriate oral and written communication is a requirement for this class. Semester projects will be presented to classmates and industrial partners at the end of the semester. Professionalism is expected when presenting your work.

Calculus Usage:

Calculus is not directly used in this course however may be used during design/redesign of recommendations.

Library Usage:

Reference material is on reserve at the library and is expected to be used to supplement the material discussed during class. Students may need to research for additional material to complement learning.

Class Polices:

1. **Attendance** will not be taken. Labs without a discussion topic will work as consultation hours for students to receive feedback and recommendations on their projects and for the instructor to evaluate progress.
2. Absence during evaluations (presentations and discussions) will be graded with 0.
3. Each student is responsible for all material discussed, distributed or assigned during lab sessions, the syllabus, and e-learning. Students are responsible for reviewing documents/assignments posted, reading, and uploading assignments and reports on time, as they are announced and made available.
4. **Brief progress reports must be submitted weekly.** Late weekly reports or project reports will not be accepted. A grade of 0 will be given to the group in the particular assignment/report. For electronic reports, technical difficulties will not be accepted as valid excuses for late submission, particularly within an hour or after the submission deadline. A grade of 0 will be given to the student in the particular assignment.
5. The instructor may request the mandatory presence of specific teams in a lab session after reading the report for clarification. Students need to be available during such session, or they will receive a grade of 0 in the corresponding report.
6. Students need to address the recommendations given by the instructor. Failure to do so will result in a reduced grade for subsequent reports.
7. **No extra-credit** or bonus work will be given **to increase failing grades.**

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8. **E-mail questions** will be answered within a 24-hour period during business hours on a first come first served basis. Homework/assignment related e-mail questions must be sent more than 24 hours before the due date.
9. The **use of cell phones** and/or audio devices, including those with earphones, is not allowed.

Accommodation for Disabilities:

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the instructor and/or Disability Services for Students at the beginning of the semester. A disability determination must be made by this office before any accommodations are provided by the instructor.

Academic Honesty:

You (the Student) are responsible for making yourself aware of and understanding the University policies and procedures that pertain to Academic Honesty. These policies include cheating, fabrication, falsification and forgery, multiple submission, plagiarism, complicity and computer misuse. (The academic policies addressing Student Rights and Responsibilities can be found in the Undergraduate Catalog at <http://catalog.wmich.edu/content.php?catoid=22&navoid=882> and the Graduate Catalog at <http://catalog.wmich.edu/content.php?catoid=23&navoid=938>.) If there is reason to believe you have been involved in academic dishonesty, you will be referred to the Office of Student Conduct. You will be given the opportunity to review the charge(s) and if you believe you are not responsible, you will have the opportunity for a hearing. You should consult with your instructor if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

Visit: www.wmich.edu/conduct, www.wmich.edu/registrar and www.wmich.edu/disabilityservices to access the Code of Honor and general academic policies on such issues as diversity, religious observance, student disabilities, etc.