

INDE 320: Work Measurement and Methods Engineering

Spring 2017 syllabus

Administrative details

Instructor: Nadine Marie Moacdieh

Email: nm102@aub.edu.lb

Office hours: MW 2-4, Th 11-12

Office location: Bechtel 529

Class time: TR 9:30-11:00 a.m.

Class location: IOEC 224A

Course textbook: Freivalds, A., & Niebel, B. (2013). *Niebel's Methods, Standards, & Work Design* (13th edition). McGraw-Hill Higher Education.

Catalog description

System and work design concepts; time studies; performance rating & allowances; standard and pre-determined times; work methods improvement; design of manual work, equipment & tools, & work environments; line balancing; manpower determinations, job analysis, and incentives; systems analysis, lean and value analysis.

Course topics

1. Importance of productivity and work design (Chapter 1)
2. Problem-solving tools (Chapter 2)
3. Operations analysis and lean manufacturing (Chapter 3 and Chapter 18)
4. Work design (Chapters 4, 5, 6)
5. Standards and time studies (Chapter 10, 11)
6. Work sampling (Chapter 14)
7. Predetermined time systems (Chapter 13)
8. Uses of standards: costs and wages (Chapter 16, 17)

Course learning outcomes

After completing INDE 320, students should be able to

1. Describe the factors that affect system productivity and worker safety in any work environment
2. Use different tools and methods, such as line balancing, to develop lean production systems

3. Identify and evaluate alternative plans of action to improve the design of the workplace using motion studies
4. Design, carry out, and report the outcome of a time study
5. Fairly evaluate worker performance and determine the necessary allowances
6. Estimate work time for a given task using predetermined time systems
7. Design, carry out, and report the outcome of a work sampling study
8. Determine fair wages based on proven standards

Course grading

Component	Percent	Details
Constructive participation	5%	Students are expected to actively participate in class
Assignments	10%	Assignments are expected to be done individually and evidence of copied work will result in a grade of zero for all involved students.
Midterm	30%	Wednesday, March 15 at 6:30 pm in IOEC 224
Project	20%	The project will be performed in groups and will include a presentation and report
Final Exam	35%	Time and location TBD

Honor Code

It is expected that all material for this course will be a student's own original work. Assignments are to be done individually and collaboration will be considered a violation of the Honor Code.

Accommodations

AUB strives to make learning experiences as accessible as possible. If you anticipate or experience academic barriers due to a disability (including mental health, chronic or temporary medical conditions), please inform me immediately so that we can privately discuss options. In order to help establish reasonable accommodations and facilitate a smooth accommodations process, you are encouraged to contact the Accessible Education Office: accessibility@aub.edu.lb; +961-1-350000, x3246; West Hall, 314.

Note: this syllabus is subject to change