

IENG 754
INVENTORY THEORY
Fall 2014

Meetings: MWF 10:00-10:50 a.m. Room MRB-109
Instructor: Dr. Wafik Iskander
Office: MRB 359D

Text: PRINCIPLES OF INVENTORY AND MATERIALS MANAGEMENT, by Richard J. Tersine; North-Holland (Latest Edition) (Recommended, but not required)

Additional References:

ANALYSIS OF INVENTORY SYSTEMS, by G. Hadley and T. M. Whitin; Prentice Hall

INVENTORY CONTROL: THEORY AND PRACTICE, by Martin K. Starr and David W. Miller; Prentice Hall

Tentative Grading System:

A total of 10 homework and tests (take-home or in-class) for a total of 200 points. Weights of homework/tests are not always equal.

NOTE: According to the department policy, no make-up tests are allowed.

Topics covered:

- * Definition and Characteristics of Inventory Control
- * Review of Basic Statistics
- * Single Order Inventory
- * Dynamic Inventory: Fixed Order Size, Deterministic Models
- * Inventory Models with System Limitations
- * Deterministic Inventory Models with Variable Demand
- * Dynamic Inventory: Probabilistic Models
- * Fixed Order Interval Systems - Deterministic models
- * Fixed Order Interval Systems - Probabilistic models
- * Inventory with Periodic Review
- * Other Miscellaneous Models
- * Material Requirements Planning (MRP)
- * MRP Lot Sizing

Statement on Attendance: Student attendance is mandatory unless excused by the instructor. The basis for an excused absence will follow University and IMSE policies. Roll will not be taken, however the students are responsible for all the material covered in class and all the announcements made (e.g. date of mid-term tests and deadlines of homework and project). If you know you will be absent for a homework or test, make arrangements with the instructor beforehand.

Academic Dishonesty: Acts of academic dishonesty such as cheating or plagiarism will result in a failing grade (a grade of zero) and will be reported to the student=s department and college.

Accommodations: If you are a person with a disability and anticipate needing any type of accommodation in order to participate in this class, you must make appropriate arrangements through Disability Services (293-6700). They will identify the nature of the accommodation your disability requires.

Statement on Social Justice: West Virginia University is committed to social justice. I concur with that commitment. I expect to foster a nurturing learning environment that is based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to how to further such a positive and open environment in this class will be appreciated and given serious consideration.

General Policies:

1. A comprehensive understanding of your class notes constitutes a minimal study material.
2. Responsibilities of the professor:
 - To provide a comprehensive treatment of inventory theory in a clear, concise and interesting manner.
 - To provide assistance when needed.
 - To evaluate student performance and subject mastery in an objective and fair manner
3. According to the department policy, no make-up tests are allowed. A student who misses a test without prior permission of the instructor must be assigned a 0 (zero). The secretary of the IMSE Department will have a telephone number where the instructor can be reached.
4. All homework will be collected and graded. They have to be turned in a neat, clean, and readable format. Late homework will not be accepted.
5. No credit will be given for attendance. Class participation is highly encouraged and will affect the final grade in borderline cases.
6. Incomplete grades are not allowed.
7. No group work is allowed in homework. It is very important to work individually. If you have any problem or need help, consult the instructor.
8. In all tests, quizzes and homework, the major part of the grade will be assigned to the logic followed and the intermediate steps taken. The final answer will not carry any weight unless it is properly justified. Correct mathematical notation and proper English language are to be followed.