IE 4391: Production and Inventory Control
Fall 2009 Course Syllabus

Professor: Dr. Jose F. Espiritu
e-mail: jfespiritu@utep.edu

Class meets (CRBL 305): Tuesdays and Thursdays 10:30 am – 11:50 am
Office hours (A109): Wednesdays 10:00 am – 12:00 pm, and by appointment

Course description:
This course emphasizes inventory control management for production planning and includes topics in
inventory control with known and unknown demand, forecasting, lot sizing, dispatching, scheduling,
materials requirement planning (MRP), just-in-time models, pull control systems and aggregate planning.
Prerequisites: Basic probability and statistics, introductory operations research

Objectives:
• Analyze and develop inventory management policies under deterministic and stochastic
  environments.
• Identify dynamic interactions among different elements of a production or distribution system.
• Develop aggregate production plans and detailed schedules through simple policies and more
  sophisticated mathematical models.

Required textbook:

Other references:
   Revitalizing the Manufacturing Enterprise. Irwin.
   and Inventory Control. Wiley.
5. Silver, E., Pyke, D. and Peterson R. (1988). Inventory Management and Production Planning and
   Scheduling. Wiley.

Grading procedure:
The final grade will be based on a weighted average of the exams score, project report and presentation,
homework assignments and class participation.

Grading:
Exam 1 25%
Exam 2 25%
Final Exam 25%
Project 10%
Homeworks 15%

Late Work policy:
Late homework or reports will not be accepted, unless certified medical proof is given. If you are unable
to attend the class at which the homework is due, it is your responsibility to submit it earlier.
Student scholastic conduct:
*Cheaters and slackers will not be tolerated in this course.* Cheating, defined as any attempt to represent another person's work as your own, this will not be tolerated in this course. Prosecution will be carried out to the fullest extent. Homeworks are individual assignments. Although discussions with your classmates during the conceptualization of the problems are encouraged, each student must solve all the problems herself or himself (including performing all computer calculations), and submit an individual write-up of the homework. Copying, or rephrasing, of someone else’s written work is unacceptable.

Disability statement:
If you have or suspect a disability and need accommodations, you should let me know and contact The Disabled Student Services Office (DSSO) at 747-5148. You can also email the office at dss@utep.edu or go to the Union Building East, Room 106. For additional information, visit the DSSO website at www.utep.edu/dsso/

ABET:
This course supports the following Industrial Engineering program outcomes, which state that our students will have:

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<thead>
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<th>Contribution to Industrial Engineering Program Outcomes:</th>
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Tentative schedule:
1. Class Introduction, Chapter 1: Strategy and Competition
2. Chapter 2: Forecasting
3. Chapter 2: Forecasting
4. Chapter 3: Aggregate Planning
5. Chapter 3: Aggregate Planning, Exam 1
6. Chapter 4: Inventory control subject to known demand
7. Chapter 4: Inventory control subject to known demand
8. Chapter 5: Inventory control subject to unknown demand
9. Chapter 5: Inventory control subject to unknown demand.
10. Chapter 6: Supply chain management. Exam 2
11. Chapter 7: Push and Pull production control systems: MRP and JIT
12. Chapter 7: Push and Pull production control systems: MRP and JIT
13. Chapter 8: Operations scheduling
14. Chapter 9: Project scheduling
15. Project Presentations
16. Final Exam