

LSC Use Only No:	LSC Action-Date:	UWUCC USE Only No.	UWUCC Action-Date:	Senate Action Date:
		04-649	AP 4-12-05 05-49	Info Title Change App-4/22/08

Curriculum Proposal Cover Sheet - University-Wide Undergraduate Curriculum Committee

Contact Person Prashanth N. Bharadwaj	Email Address pnb@iup.edu
Proposing Department/Unit Management	Phone

Check all appropriate lines and complete information as requested. Use a separate cover sheet for each course proposal and for each program proposal.

1. Course Proposals (check all that apply) ☐ New Course ☐ Course Prefix Change ☐ Course Deletion ☒ Course Revision ☒ Course Number and/or Title Change ☒ Catalog Description Change		
Supply Chain Management—MGMT 437 → MGMT 437 Operations Management System		
<u>Current Course prefix, number and full title</u>		<u>Proposed course prefix, number and full title, if changing</u>
2. Additional Course Designations: check if appropriate ☐ This course is also proposed as a Liberal Studies Course. ☐ Other: (e.g., Women's Studies, Pan-African) ☐ This course is also proposed as an Honors College Course.		
3. Program Proposals ☐ New Degree Program ☐ Program Title Change ☐ Program Revision ☐ New Minor Program ☐ New Track ☐ Other		
<u>Current program name</u>		<u>Proposed program name, if changing</u>
4. Approvals		
Department Curriculum Committee Chair(s)	<i>Joette Wisniewski</i>	2-28-05
Department Chair(s)	<i>Prashanth N. Bharadwaj</i>	2-28-05
College Curriculum Committee Chair	<i>Cy... ..</i>	2 MAR 05
College Dean	<i>R. Cans</i>	3-2-05
Director of Liberal Studies *		
Director of Honors College *		
Provost *		
Additional signatures as appropriate: (include title)		
UWUCC Co-Chairs	<i>Gail S Sedquist</i>	4-12-05

* where applicable

MAR - 3 2005

II. Description of Curriculum Change

a. Proposed Catalog Description:

MGMT 437 Supply Chain Management

3c-0l-3cr

3 class hours

0 lab hours

3 credits

Prerequisite: MGMT 330

Deals with the design and evaluation of supply chain systems with a focus on strategic and technological issues. These concepts will be developed through exploration of contemporary practices, case studies, research, as well as analytical frameworks of Supply Chain Management. Theoretical and practical understanding of manufacturing and service planning and control, including systems modeling, purchasing and sourcing, logistics, strategic alliances, inventory management, scheduling, etc. Manufacturing and service technologies and trends are also emphasized. Computer applications are used for understanding the interrelationships between various components of Operations System.

Current Catalog Description:

MGMT 437 Operations Management System

3c-0l-3cr

3 class hours

0 lab hours

3 credits

Prerequisite: MGMT 330

A theoretical and practical understanding of manufacturing and service planning and control, including systems modeling, purchasing and sourcing, information and control including MPS, MRP, and MRP-II, scheduling, etc. Manufacturing and service technologies and trends are also emphasized. Computer applications are used for understanding the interrelationships between various components of operations system.

b. List of changes

- 1) Changing course title from Operations Management System to Supply Chain Management
- 2) Changing the catalog description to match the newer industry terminology.

c. Rationale: The course title and catalog description are changing to reflect the new terminology being used in the practice.

MGMT 437 Supply Chain Management
3c-0l-3cr
Prerequisite: MGMT 330

MGMT 537 Supply Chain Management
3c-0l-3cr
Prerequisite: MGMT 330 or equivalent

I. Catalog Description

The course will deal with the design and evaluation of supply chain systems with a focus on strategic and technological issues. These concepts will be developed through exploration of contemporary practices, case studies, research, as well as analytical frameworks of Supply Chain Management. Theoretical and practical understanding of manufacturing and service planning and control, including systems modeling, purchasing and sourcing, logistics, strategic alliances, inventory management, scheduling, etc. Manufacturing and service technologies and trends are also emphasized. Computer applications are used for understanding the interrelationships between various components of Operations System.

II. Course Objectives

After successful completion of this introductory course, students will:

1. Understand strategic issues of Logistics and Supply Chain Management
2. Have the ability to apply the following tools in an organizational setting: lot sizing, master production schedule (MPS), materials requirements planning (MRP), manufacturing resource planning (MRP-II), Just-in-Time (JIT) systems, operations scheduling, systems modeling, etc.
3. Develop an understanding of the following issues: Logistics Network Configuration; Inventory Management of Risk Pooling; the Value of Information; Distribution Strategies; Coordinated Product and Supply Chain Design; Customer Value and Supply Chain Management (SCM); Performance Measurement in Supply Chain Systems; Environmental Issues in Supply Chain Design/Reverse Logistics;

Additional objective for graduate students

4. Use of computers and technology to design and implement supply chain solutions.

III. Detailed Course Outline

Topics	# of hours
Introduction: Survey of tools and philosophies in management of logistics and supply chain management leading to ERP. Fundamental approaches to managing inventory, some traditional approaches (EOQ, fixed order interval system, MRP, MRP-II, JIT)	6
Inventory in the logistic system: Risk Pooling	3
The Beer Game	3
Distribution Strategies: Single warehousing, centralized vs. decentralized systems; The value of information; The bullwhip effect; concept of direct shipment and cross-docking, transshipment	3
Strategic Alliances: 3PL (Third-party logistics), RSP (retailer-supplier partnership), Distribution Integration	3
Global Issues in Supply Chain Management--Global markets, global corporations, competitive environments, changing political and legal environments, emerging market/region integrations; risks and opportunities	3
Coordinated Product and Supply Chain Design: Economic packaging and transportation, material handling, concurrent and parallel processing, postponement, mass customization. Dimensions of Customer Value	3
Logistics Network Configuration: Understanding logistics environment (micro as well as macro), data collection, model and data validation	3
Transportation Management: Carrier selection, federal regulations, documentation requirements (domestic and international), pricing.	3
Basics of Procurement: Transformation through web-based technologies, dynamic replenishments in the extended enterprise; Procurement Process reengineering	3
Information Technology for Supply Chain Management: Goals of supply-chain information technology, standardization, infrastructure, interface devices, communication, databases, system architecture, etc.	3
Decision Support Systems in SCM	3
Project presentations + tests	2+3

IV. Evaluation Methods

Grading Method	Description	Under grad. Weight	Grad. Weight
2 Exams--Mid-term and Final	Exams will comprise of one or more of the following: objective type questions, short answers, problems, essays, case analysis, etc.	60%	35%
Journal Article	Each <i>undergraduate</i> student will discuss <u>one</u> assigned journal article in class and distribute a 1-page summary to the entire class for discussion. <i>Graduate students</i> will be assigned <u>three</u> articles and will be expected to conduct more thorough review and analysis.	5%	15%
Term Paper & Presentation	Students will be required to develop a term paper (about 10-15 double-spaced typed pages) based on current readings of journals and business periodicals, business survey, and/or interviews. Students will make a class presentation. The expectation pertaining to literature review, synthesis and original contribution of <i>graduate students</i> will be higher than that for undergraduate students	15%	25%
Quizzes/ Assignments	Will include quizzes, assignments, computer games, etc. <i>Grade students</i> will have more computer related assignments.	15%	20%
Class Participation	Attendance and active class participation	5%	5%

V. Sample Grading Scale

Grade Distribution: $\geq 90\%$ --A; 80-89.99%--B; 70-79.99%--C; 60-69.99%--D; $< 60\%$ --F

Only undergraduate students can earn "D" grade. For graduate students, $<70\%$ results in F.

VI. Attendance Policy

One week (or 3 hours) of class may be missed without penalty. Absences beyond that will have to be arranged with Professor or must be pertaining to emergencies or illness. Documentation will have to be provided.

VII. Typical Required Textbook

Wisner, J.D., Leong, G.K. and Tan, K. (2005), "Principles of Supply Chain Management," Thomson South-Western.

VIII. Special Resource Requirements

None

IX. Bibliography

Andel, T. "There's Power in Numbers." *Transportation and Distribution* 36 (1995), pp.67-72.

Andreoli, T. "VMI Confab Examines Value-Added Services." *Discount Store News* 34 (1995), pp. 4-61.

Baiman, Stanley, Paul E. Fisher, and Madhav V. Rajan. "Performance Measurement and Design in Supply Chains." *Management Science* 47, no. 1 (January 2001): 173-188

Ballou, Ronald H. *Business Logistics Management*, 4th ed. Upper Saddle River, NJ: Prentice Hall (1999)

Bender, Paul S. "Debunking 5 Supply Chain Myths." *Supply Chain Management Review* 4, no. 1 (March 2000): 52-58

Blumenfeld, D. E.; L. D. Burns; C. F. Daganzo; M. C. Frick; and R. W. Hall. "Reducing Logistics Costs at General Motors." *Interfaces* 25 (1987), pp. 26-47.

Bovet, D., and Y. Sheffi. "The Brave New World of Supply Chain Management." *Supply Chain Management Review*, Spring 1998, pp. 14-22.

Bumstead, Jon and Kempton Cannons. "From 4PL to Managed Supply-Chain Operations". *Focus* (2002)

Buzzell, R. D., and G. Ortmeier. "Channel Partnerships Streamline Distribution." *Sloan Management Review* 36 (1995), p. 85.

- ChainLink Research. "Dynamics of the Retail-Supplier Relationship". *Chain Store Age* (June 2003).
- Chen, Frank, Zvi Drezner, Jennifer K. Ryan, and David Simchi-Levi. "Quantifying the Bullwhip Effect in a Simple Supply Chain: The Impact of Forecasting, Lead Times, and Information." *Management Science* 46, no. 3 (March 2000): 436-443.
- Chopra, Sunil, and Peter Meindl. *Supply Chain Management: Strategy, Planning, and Operation*. Upper Saddle River, NJ: Prentice Hall (2001).
- Cohen, Morris A., Hau L. Lee, and Don Willen. "Saturn's Supply Chain Innovation: High Value in After-Sales Service." *MIT Sloan Management Review* (summer 2000): 93-101.
- _____. "Third Parties Deliver." *Manufacturing Systems* 13 (1995), pp. 66-68.
- Feitzinger, E., and H. Lee. "Mass Customization at Hewlett-Packard: The Power of Postponement." *Harvard Business Review* 75, no. 1 (1977), pp. 116-121.
- Fernie, J. "International Comparisons of Supply Chain Management in Grocery Retailing." *Service Industries Journal* 15 (1995), pp. 134-147.
- Fine, Charles H. "Clockspeed-Based Strategies for Supply Chain Design." *Production and Operations Management* 9, no. 3 (fall 2000): 213-221.
- Fisher, M. L.; J. Hammond; W. Obermeyer; and A. Raman, "Making Supply Meet Demand in an Uncertain World." *Harvard Business Review*, May-June 1994, pp. 83-93.
- Handfield, R., and B. Withers. "A Comparison of Logistics Management in Hungary, China, Korea, and Japan." *Journal of Business Logistics* 14 (1993), pp. 81-109.
- Handfield, Robert B., et al. "Avoid the Pitfalls in Supplier Development." *MIT Sloan Management Review* (winter 2000): 37-50.
- Handfield, Robert B., and Ernest L. Nichols Jr. *Introduction to Supply Chain Management*, 2nd ed. Upper Saddle River, NJ: Prentice Hall (2003).
- Hannon David. "Stop the Waste and Start the Saving". *Purchasing* v133 no6 p29-30, 32 (Ap 1 2004).
- Lee, Hau., P. Padmanabhan, and S. Whang. "The Paralyzing Curse of the Bullwhip Effect In a Supply Chain." *Sloan Management Review*, (Spring 1997), pp. 93-102.
- Levitan, Ian, David Abecassis. "Multiple faces of Crossdocking". *KPMG* (1997).

- Lee, Hau L, V Padmanabhan, and Seungjin Whang. "The Bullwhip Effect in Supply Chains." *Sloan Management Review Association* (Spring 1997).
- Magretta, J. "The Power of Virtual Integration: An Interview with Dell Computer's Michael Dell." *Harvard Business Review*, (March-April 1998), pp. 72-84.
- Manrodt, K. B.; M. C. Holcomb; and R. H. Thompson. "What's Missing in Supply Chain Management?" *Supply Chain Management Review*, Fall 1997, pp. 80-86.
- McCutcheon, D., and F. I Stuart. "Issues in the Choice of Supplier Alliance Partners." *Journal of Operations Management* 18, no. 3(April 2000): 279-302.
- Novak, Sharon, and Steven D. Eppinger, "Sourcing by Design: Product Complexity and the Supply Chains." *Management Science* 47, no. 1 (January 2001): 189-204.
- _____. "Rethinking Distribution: Adaptive Channels." *Harvard Business Review*, July-August 1986, pp. 112-20.
- Pine, J.B. II, and A. Boynton. "Making Mass Customization Work." *Harvard Business Review* 71, no. 5 (1993), pp. 108-19.
- Quinn, J. B. "Strategic Outsourcing: Leveraging Knowledge Capabilities." *Sloan Management Review* 35, no. 4 (summer 1999): 43-55.
- Schoneberger, R.J. "Strategic Collaboration: Breaching the Castle Walls." *Business Horizons* 39 (1996), p. 20.
- Schwind, G. "A Systems Approach to Docks and Cross-Docking." *Material Handling Engineering* 51, no. 2 (1996), pp. 59-62.
- Shenk, D. *Data Smog: Surviving the Information Glut*. New York: *HarperCollins*, 1997.
- Shin, H., D. A. Collier, and D. D. Wilson. "Supply Management Orientation and Supplier/Buyer Performance." *Journal of Operations Management* 18, no. 3 (April 2000): 317-334.
- Simchi-Levi, David, Philip Kaminsky, and Edith Simchi-Levi, *Designing and Managing the Supply Chain: Concepts, Strategies, and Case Studies*. Boston: Irwin/McGraw-Hill (2000).
- Stanley, L. L. and V. R. Singhal. "Service Quality Along the Supply Chain: Implications for Purchasing." *Journal of Operations Management* 19, no. 3 (May 2001): 287-306.
- Troyer, T., and D. Denny. "Quick Response Evolution." *Discount Merchandiser* 32(1992), pp. 104-7.

Useem, Michael, and Joseph Harder. "Leading Literally in Company Outsourcing." *MIT Sloan Management Review* 41, no. 2 (winter 2000): 25-36

Wing, Keith. "World-Class Distribution." *APICS The Performance Advantage* (August 2000): 37-42.

Wolters, Teun. "Transforming International Product Chains into channels of Sustainable Production: The Imperative of Sustainable Chain Management" *GMI* 43 (Autumn 2003).

Witte, Carl L., Marko Grunhagen, and Richard L. Clarke. "The Intergration of the EDI and the Internet". *Information Systems Management* (Fall 2003).