

## **BRET J. WAGNER**

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Director, Integrated Supply Management Program  
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### **EDUCATION**

Ph.D. in Operations Management, Michigan State University, 1995.  
Minors in Statistics and Systems Science

Master of Engineering Administration, George Washington University, 1988.

B.S. in Mechanical Engineering, Michigan State University, 1983.

### **EXPERIENCE**

Director, Integrated Supply Management Program  
Western Michigan University, 2004 – present

Associate Professor, Department of Management  
Western Michigan University, 2003 – present

Assistant Professor, Department of Management  
Western Michigan University, 2001 - 2003

Assistant Professor, Department of Business Administration  
University of Delaware, 1995 – 2001.

Lecturer, Department of Business Administration  
University of Delaware, 1994 – 1995.

Teaching Assistant, Department of Management  
Michigan State University, 1989 – 1994.

Adjunct Faculty, Master of Management Program  
Aquinas College, Grand Rapids, MI, 1990 – 1993.

Engineering Supervisor/Engineer, Newport News Shipbuilding, 1983-1989.

## **PROFESSIONAL LICENSES**

Professional Engineering License, Commonwealth of Virginia, 1989.

## **RESEARCH INTERESTS**

Production Planning and Scheduling, Simulation, Supply Chain Management and Quality Management

## **PUBLICATIONS**

Davis, Darwin J., Kher, Hemant V. and Wagner, Bret J., "Influence of workload imbalances on the need for worker flexibility," *Computers & Industrial Engineering*, Vol. 57, Issue 1, August 2009, 319-329.

Wagner, B. J. and D. Y. Golhar, "A Practical Procedure for Developing p-Charts", *Economic Quality Control*, Vol. 21, No. 1, 2006, 13-27.

Wagner, B. J., D. J. Davis and H. V. Kher, "The production of several items on a single facility with linearly changing demand rates," *Decision Sciences*. Vol. 33, No. 3, 2002.

Wagner, B. J. and D. J. Davis, "A search heuristic for the sequence-dependent economic lot scheduling problem, *European Journal of Operational Research*, Vol. 141, No. 1, June 2002, 133-146.

Wagner, B. J. and D. J. Davis, "Discrete Sequential Search with Group Activities," *Decision Sciences*. Vol. 32, No. 4, 2001.

Wagner, B. J., "A genetic algorithm solution for one-dimensional bundled stock cutting," *European Journal of Operations Research*, Vol 117, No. 2, September 1, 1999.

Gehrlein, W. V. and B. J. Wagner, "A Two-Stage Least Cost Credit Scoring Model," *Annals of Operational Research*, Vol. 74(1997), 159-172.

Wagner, B. J. and G. L. Ragatz, "The Impact of Lot Splitting on Due Date Performance," *Journal of Operations Management*, Vol. 12, No. 1, October 1994, pp. 13-26.

## **PROCEEDINGS**

Kher, H.K., Davis, D. J. and B. J. Wagner, "Worker Flexibility and Staffing Levels in the Presence of Workload Imbalances," *Proceedings of the 32<sup>nd</sup> Decision Sciences Conference*, San Francisco, California, November 2001.

Wagner, B.J. and D. J. Davis, "Sequencing Process Diagnostics to Minimize the Expected Problem Detection Time," *Proceedings of the 5<sup>th</sup> International Decision Sciences Conference*, Athens, Greece, July 1999.

Wagner, B.J., "Observations on Putting Production Scheduling Models into Practice," *Proceedings of the 4<sup>th</sup> International Decision Sciences Conference*, Sydney, Australia, July 1997.

Wagner, B. J., R. L. Andrews and W. V. Gehrlein, "An Integer-Programming Approach to Brand Choice," *Proceedings of the National Decision Sciences Conference*, Orlando, Florida, 1996.

Wagner, B. J. and W. V. Gehrlein, "A Variable Selection Mixed-Integer Programming Model for Discriminant Analysis," *Proceedings of the Northeast Decision Sciences Conference*, St. Croix, USVI, April 1996.

Wagner, B. J., "A Production Scheduling Model for Dual Resource Constrained Repetitive Manufacturing," *Proceedings of the National Decision Sciences Conference*, Washington, D.C., November 1993.

Wagner, B. J., "Regression-based Due-Date Prediction Intervals," *Proceedings of the 2nd International Decision Sciences Conference*, Seoul, Korea, June 1993.

Wagner, B. J. and R. M. Monczka, "The Impact of Production Schedule Variation on Supplier Performance: A Simulation Study," *Proceedings of the Midwest Decision Sciences Conference*, Lansing, Michigan, May 1993.

Wagner, B. J. and G. L. Ragatz, "Lot Splitting in an Open Job Shop Environment: Effects of Setup Times and Due Date Assignment on Flow Time and Tardiness," *Proceedings of the Midwest Decision Sciences Institute*, Indianapolis, Indiana, May 1991.

## **BOOK CHAPTERS**

Wagner, B. J. and Thomas Rienzo, "Teaching Integrated Business Processes via ERP Configuration," in *Enterprise Systems Education in the 21st Century*, Andrew S. Targowski and J. Michael Tarn, editors. Information Science Publishing, Hershey, PA, 2007.

## **RESEARCH GRANTS**

Developing a Model for Variable Quantity Bundled Stock Cutting with Recuts, \$2500 from MarginMax LLC. Research Grant provided to purchase computer hardware to extend bundled cutting stock research to variable quantity bundles.

## **TEXTBOOKS**

*Concepts in Enterprise Resource Planning, 3<sup>rd</sup> Edition*, Ellen F. Monk and Bret J. Wagner, Published by Course Technology, 2009.

## **GRANTS**

Low-impact SAP Exercises to Accompany *Concepts in Enterprise Resource Planning*, \$30,000, SAP America University Alliance.

Teaching the Design and Implementation of Integrated Business Processes using the IDS/Scheer Aris Toolset. With Robert Balik, Satish Deshpande, Damodar Golhar, Bernard Han, Andrew Targowski and Richard Plank. Software Grant valued at \$120,000.

Western Michigan University, Teaching and Learning with Technology Grant, 2002, \$25,000. With Robert Balik, Bernard Han, Andrew Targowski, Richard Plank and Satish Deshpande. Education in Electronic Business Integration.

University of Delaware General University Research Grant, 1997, \$5,000. Research grant to apply genetic algorithms to production scheduling problems.

University of Delaware, College of Business and Economics Information Technology Curriculum Development Grant, 2000, \$1,000. Research grant to develop statistics review web site for Data Analysis and Quality Management courses

## **INVITED PRESENTATIONS**

“To ERP or not to ERP,” Keystone Breakfast Series, Western Michigan University, March 1, 2002

“SAP at the University of Delaware,” with J. Brady and E. Monk, Technological Innovations in Business Education Conference, McIntire School of Commerce, University of Virginia, April 23-24, 1999.

“Integrating SAP into the Business Curriculum at the University of Delaware,” University Alliance Program, 1999 SAPPHIRE Conference, Philadelphia, PA, September 14-16, 1999.

## **AWARDS**

Majdi Najm Service Award, SAP University Alliance, 2006, \$5,000 honorarium. First award recipient.

Finalist, Case Studies Award Competition, 32<sup>nd</sup> Annual Meeting, Decision Sciences Institute, San Francisco, CA, Nov. 17-21, 2001.

## **PRESS QUOTATIONS**

“Auto Jobs a Worry for Minner,” by Bill Yingling, Wilmington News Journal, Wilmington, DE, Jan. 14, 2001.

## **OTHER Publications**

XANEDU Coursepacks: Selected and annotated articles for coursepacks on Quality Management and Operations Management

Book Chapter. “Business and Operations Information Systems,” with Andrew Targowski and Thomas Rienzo, in *Enterprise Information Infrastructure, 3<sup>rd</sup> Ed.*

## **SAP UNIVERSITY ALLIANCE**

SAP-University Contact for Western Michigan University’s SAP Initiative.

Initiated SAP University Alliance Program at the College of Business and Economics, University of Delaware.

## **ERP System Training, SAP America Inc.**

Manufacturing Planning and Execution for Discrete and Repetitive, 5 days

Manufacturing Planning and Execution for Process, 5 days

Advanced Planner and Optimizer Overview, 2 days

Production Planning/Detailed Scheduling, 3 days

Basic Data for Discrete Manufacturing, 5 days

Quality Management, 3 days

Logistic Information Systems (LIS) Reporting, 2 days

Cost Management and Controlling, 5 days

Processes in Sales and Distribution, 5 days

SAP Business Workflow Introduction, Release 4.0, 2 days

R/3 Basis Technology, 2 days

Implementation of an Integrated Business Solution, 5 days

Implementation of an Integrated Business Solution-Course Setup, 5 days

SAP Accelerated SAP Implementation Methodology, 5 days

Purchasing, 5 days

Production Orders, 5 days

Capacity Planning, 5 days  
Flexible Planning, 2 days  
Production Planning, 5 days  
Kanban, 2 days  
Repetitive Manufacturing, 3 days  
SAP Business Webflow, 2 days  
SAP Business Webflow, Build and Use, 5 days  
Software Logistics, 5 days  
ABAP Workbench, 5 days  
ABAP Data Dictionary, 3 days  
ABAP Objects, 5 days  
Processes in Logistics Execution, 3 days  
Credit and Receivables Risk Management, 5 days  
Pricing in Sales and Distribution, 3 days  
Data Transfer Workbench, 5 days

## **TEACHING INTERESTS**

Production Planning and Scheduling, ERP System Configuration, Introduction to Operations Management, Introduction to Management Science, Simulation, Business Statistics, Quality Management, Decision Support Systems for Operations.

## **STUDY ABROAD**

### **Global Business in Japan and Thailand, Spring 2009**

Assisted Dr. Thaweephan Leingpibul in the development and execution of a two-week study-abroad course in Japan (Tokyo) and Thailand (Bangkok). Visits included Singha Brewery, American Chamber of Commerce, Proctor and Gamble and Toyota Thailand.

### **Manufacturing in Australia, Spring 2007, 2005 and 2003.**

Developed and lead a two-week study abroad course for undergraduate students in Australia. Experiences included manufacturing tours and case study competitions with students at University of Technology, Sydney and Swinburne University, Melbourne.

### **Integrated Supply Management in Germany, Spring 2006.**

Developed and lead a two-week study abroad course for undergraduate students in Germany. Experiences included manufacturing tours and a case study competition with students at Universität Paderborn.

### **Business Relations in London and Paris, Spring 2008.**

Developed (with Steve Newell) and lead a two-week study abroad course for undergraduate students in London and Paris. Experiences included business visits, retail experiences and presentations at Negocia University in Paris and Brunel University in Uxbridge, UK.

## **TEACHING EXPERIENCE**

### **MGMT 3200, Managing ERP Systems, Western Michigan University**

**2003 - Present**

Through a hands-on Enterprise Requirements Planning (ERP) software configuration project, students learn how information technology can help a firm manage its business processes. Management issues associated with implementing ERP systems in an organization are also explored.

### **MGMT 4640, Manufacturing Planning and Control, Western Michigan University**

**2001 - Present**

This course presents quantitative and computer-based methods of planning and controlling operations in manufacturing industries and service organizations. Areas covered in depth include scheduling, aggregate planning, and inventory control.

### **MGMT 6140, Business Process Management, Western Michigan University**

**2001 – 2005**

This is a functional core class in the MBA Program and introduces students to the increasingly integrated areas of purchasing, operations and logistics. Students work on a semester-long project to evaluate an existing business process and then develop a proposal to improve the process.

### **MGMT 6850, Quality Management Strategies, Western Michigan University MBA Program in Singapore, Fall 2003**

This course provides an introduction to both quality management philosophies (Total Quality Management, Continuous Improvement, Six Sigma, etc.) as well as an introduction to quality management tools like process capability analysis, control charting and experimental design. This course was offered as an intensive module as part of the WMU Singapore MBA program.

### **BUS 3750, Production and Service Productivity, Western Michigan University Spring 2002, Summer 2005.**

This course examines core business operations and their impact on the productivity of functional business areas and, in turn, the entire organization. The techniques for the design, implementation, and innovation of process improvements in business operations, for example, product design, location and capacity decisions, aggregate operations planning, just-in-time systems, supply chain management, statistical process control, and quality function deployment comprise the body of knowledge.

### **MGMT 6200, ERP System Configuration, Western Michigan University, Summer 2003, 2004, and 2007 through 2009.**

Developed a graduate course in ERP system Configuration. Students were given a hands-on experience in the configuration of an ERP system, including setting up company data structures, general ledger accounts, cost centers, procurement and sales processes and automatic account determination. Each student created and tested their virtual company configuration using the SAP ERP system.

**BUAD 820, Data Analysis and Quality Management, University of Delaware  
1994 - 2000**

This required MBA course covers basic statistical analysis, quality management, quality control tools, regression analysis and ANOVA. I have taught this course on-campus, off-campus at DuPont and MBNA America and in the Executive MBA Program.

**BUAD 831, Design and Management of Operations, University of Delaware  
Summer 2001**

Provides an overview of major concerns in the design and management of operations within a business. Focuses on topics such as product design, layout and process design, job design and measurement, forecasting, project, production and staff scheduling, inventory control, and materials management in both manufacturing and service industries.

**BUAD 448, Decision Support Systems for Operations, University of Delaware,  
1999 - 2001**

Developed this course to teach the design, implementation and use of decision support systems in operations. Many of the concepts were illustrated using SAP's R/3 software. This was the first course at the University of Delaware to integrate SAP in the curriculum.

**MGT 304, Purchasing and Operations Management, Michigan State University  
1992 - 1994**

This was a required course for undergraduate Materials and Logistics Management majors at Michigan State University. Material covered included basics of purchasing, trends in supply chain management, introduction to operations management, manufacturing requirements planning and forecasting.

**MGT 402, Production Planning and Scheduling, Michigan State University  
1993 - 1994**

This was a required course for undergraduate Materials and Logistics Management majors at Michigan State University. Material covered included advanced concepts in manufacturing requirements planning, capacity planning and shop floor control.

**MG 510, Business Research Methods, Aquinas College  
1990-1993**

This was a required course for the Master of Management Program at Aquinas College. Topics included the research process, survey research, secondary data analysis and statistical analysis. Students developed a research proposal related to their work environment during the course.

**MGT 306, Analysis of Processes and Systems, Michigan State University  
1989 - 1992**

This was a required course for undergraduate business majors at Michigan State University to introduce students to management science tools. Served as a teaching



assistant and course coordinator. Developed instructional computer simulation program for use in course project.

## **SERVICE ACTIVITIES**

### **Western Michigan University**

International Business Education Committee, 2007 – present.

Executive Committee, Department of Management, 2001 – 2006.

Graduate Programs Council, 2002 – 2004.

Department and College Curriculum Committee, 2002 – 2005.

WMU-AAUP Department Representative, 2007 – Present.

Faculty Advisor, WMU Student APICS Chapter, 2003 – Present.

### **University of Delaware**

Member, College of Business MBA Committee, 1996 – 2000.

Co-Chair, College of Business SAP Integration Committee, 1998 - 2001.

Member, College of Business Information Technology Committee, 1998 - 2001.

Member, University Committee on Instructional, Computing and Research Support Services, 1994 - 1997.

Faculty Advisor, Habitat for Humanity Campus Chapter at the University of Delaware, 1996 - 1999.

### **State of Delaware Quality Award, 1995 - 1999.**

Examination Team Leader, Feedback Report Editor and Evaluation Committee Member.

Planning and Logistics Reengineering Project, Montell Polyolefins, 1997.

## **PROFESSIONAL ACTIVITIES**

Reviewer: *Decision Sciences, European Journal of Operational Research, International Journal of Production Economics, International Journal of Systems Science, Production and Operations Management* and the *International Journal of Operations and Quantitative Management*.

Reviewer for McGraw-Hill/Irwin.