MICHELE E. PFUND

3336 E. Blue Ridge Place • Chandler, AZ 85249
Phone:(480)802-2987 • Email: michele.pfund@asu.edu

PROFILE

Instructor of Supply Chain Management and Industrial Engineering, approaching duties with tremendous passion while inspiring students to work to their full potential. Expertise in simplifying intellectually challenging subject matter and making complex theoretical concepts accessible through use of simulation and other innovative, hands-on teaching strategies. Proven leader on various university committees and research initiatives and key contributor to ongoing field research. Well-rounded professional with 10-year industry career in addition to extensive university experience.

EDUCATION

2002 **ARIZONA STATE UNIVERSITY** **Tempe, AZ**
Ph.D. Industrial Engineering, Preparing Future Faculty Fellow
Dissertation: Evaluation of Uncertainty on Scheduling Algorithms in PWB Manufacturing

1999 **PURDUE UNIVERSITY** **West Lafayette, IN**
M.S. Industrial Engineering

1993 **CASE WESTERN RESERVE UNIVERSITY** **Cleveland, Ohio**
B.S. Chemical Engineering; Management Minor

ACADEMIC EXPERIENCE

1999- pres **ARIZONA STATE UNIVERSITY** **Tempe, AZ**

2013 - pres **Assistant Dean, Academic Affairs**

2011- pres **Assistant Chair, Supply Chain Management Department**

2009- pres **Clinical Associate Professor, Supply Chain Management**

2011 -2013 **Faculty Director, Online MBA Program**

2005-2009 **Clinical Assistant Professor, Supply Chain Management**
Manage all aspects of course development and execution for the following courses: Business Decision Models (SCM 315/SCM 515), Control Systems for SCM (SCM 432), Quality Management and Measurement (SCM 440), Operations and Logistics Management (SCM 502), and Logistical Functions in Supply Chains (SCM 541).

- Appointed and successfully served as Director of the Undergraduate Program.
- Work daily to create supportive, intellectually stimulating environment for students while making ongoing contributions to leading field research, including authorship of *Managing, Controlling, and Improving Quality* (2009 Wiley).

2004-2005 **Lecturer, Industrial Engineering**

2002-2003 **Visiting Assistant Professor, Industrial Engineering**
Taught Engineering Statistics (ECE 380), Discrete Event Simulation (IEE 475/545), Production Control (IEE 461), and Design of Experiments (IEE 572) to graduates and undergraduates.

- Co-Principal Investigator for Subproblem Solution Procedure task of the SRC/ISMT FORCe Scheduling of Semiconductor Wafer Fabrication Facilities project.
- Co-Principal Investigator for NSF Cross-Training of Engineers and Technicians project.
- Advised / co-advised numerous Ph.D. dissertations, master's theses, and undergraduate honors projects.

ACADEMIC EXPERIENCE *(continued)*

2002-2003 **ASU Institute for Manufacturing Enterprise System (http://www.eas.asu.edu/~imes/)**

Provided research support for Industry/University collaboration projects including the Impact of Disruptions in the Supply Chain of the Semiconductor Industry

2000-2001 **Instructor, Supply Chain Management**

Taught SCM 432, a Manufacturing Planning and Control course within the Supply Chain Management department at the ASU School of Business

- Awarded John W. Teets Outstanding Teaching Award for the School of Business.

1999-2002 **Research Assistant, Industrial Engineering**

Provided research support for the following research projects (see more in research section below): NSF Cross Training of Engineers and Technicians, Unrelated Parallel Machine Scheduling, Scheduling of a Wafer Fabrication Facility, USAF Project Management

INDUSTRY EXPERIENCE

2003 - 2004 **JOHNSON & JOHNSON** **Titusville, NJ**
Assistant Director, Portfolio Management
Manager, Portfolio Management

Enabled management to make key strategic decisions by developing optimization and simulation models for J&J's $10B pharmaceutical pipeline. Performed financial analyses of licensing opportunities and their potential impact to company's pharmaceutical portfolio.

- Provided decision support guidance for the following types of questions: Will the current pipeline meet long-term strategic goals? What is the optimal combination of projects to meet short- and long- term deliverables? What are the highest-value projects in the pipeline?
- Business lead for research, selection, purchase, and deployment of portfolio management software.
- Developed and deployed decision analysis models for selection of new drug indications and optimization models for therapeutic area, division, and company-wide drug portfolios.

1997-1999 **ROCHE DIAGNOSTICS** **Indianapolis, IN**
Development Engineer

Assisted in efforts to continually evolve and improve Roche manufacturing processes, with primary focus on planning, design, execution, and implementation of highly efficient capital equipment purchases. Managed capital equipment budgets and regularly prepared detailed financial analyses of capital purchases.

- Successfully managed all stages of major, $1.4M capital equipment purchase, including vendor guidance / equipment design, factory acceptance testing, equipment rigging / installation, facility / utility modifications, equipment calibration and validation, operator training, quality sampling plans, documentation, and transfer to production.
- As key member of several new product launch teams, completed comprehensive technical product design reviews and designed / managed overall manufacturing process (including process design, materials planning, operating / calibration procedures, validation testing, and final implementation).

INDUSTRY EXPERIENCE *(continued)*

1994-1997 **NELLCOR PURITAN BENNETT** **Indianapolis, IN**

Manufacturing Engineer

Managed FDA GMP-regulated projects for this major medical device manufacturer. Led multi-disciplinary teams in creating and implementing solutions to various product design, process design, purchasing, receiving, and material handling issues. Designed validation and qualification test protocols and related operation, calibration, and preventive maintenance procedures to monitor instrument / equipment / system performance.

- Managed design of new, more efficient manufacturing processes, including purchasing of capital equipment to improve manufacturing operations. Helped contribute $4M in cost savings through redesign of existing facility layout and incorporation of world-class manufacturing standards.
- Implemented statistical process control (SPC) in all manufacturing facilities.

AWARDS & HONORS

- Top 5 Online Instructors in America: Online Schools.com (2011)
- W. P. Carey Outstanding Teaching award: MBA & Graduate Business (2011)
- Huizingh Award for Classroom Innovation Nominee (2008)
- Huizingh Outstanding Undergraduate Professor Nominee (2007)
- Informs Moving Spirit Award (2004)
- Johnson & Johnson Standards of Leadership (2004)
- Alpha Pi Mu, Omega Rho, and Phi Kappa Phi Honor Society Inductions (2002)
- Arizona State Industrial Engineering Departmental Academic Commendations (Fall 1999, Spring 2000, Fall 2000, Spring 2001)
- Preparing Future Faculty Fellowship (2001 – 2002)
- John W. Teets Outstanding Teaching Award for the School of Business (2000)

RESEARCH

Interests

- Decision Analysis, Optimization, and Simulation Methodologies that support Pharmaceutical & Medical Device R&D
- Supply Chain Management
- Modeling and Analysis of Manufacturing Systems
- Manufacturing Scheduling / Rescheduling (factory & supply chain)

Funded Research Project Participation

- NSF, Cross Training of Engineers and Technicians, NSF-ATE-9850310, Co-PI
- SRC and International SEMATECH, Scheduling of Semiconductor Wafer Fabrication Facilities, SRC 2001-NJ-880, Co-PI
- United States Air Force, Project Life Cycle Simulation and Risk Assessment, F33615-96-D-5608
- ASU Industrial Engineering Department, Unrelated Parallel Machine Scheduling

Journal Articles (published)

- Y. Lin, J. Fowler, M. Pfund, and D.C. Montgomery, “Processing Time Generation Schemes for Parallel Machine Scheduling Problems with Various Correlation Structures,” *Journal of Scheduling*, to appear.
- Y. Lin, M. Pfund, and J. Fowler, “Multiple-Objective Heuristics for Scheduling Unrelated Parallel Machines,” *European Journal of Operations Research,* to appear.

Journal Articles (published)

- S. Kim, J. Fowler, D. Shunk, and M. Pfund, "Improving the Push-Pull Strategy in a Serial Supply Chain by a Hybrid Push-Pull Control with Multiple Pulling Points," *International Journal of Production Research,* Vol 50, No. 19, pp. 5651-5668, 2012
- Y. Lin, M. Pfund, and J. Fowler, "Heuristics for Minimizing Regular Performance measures in Unrelated Parallel Machine Scheduling Problems," *Computers and Operations Research,* Vol. 38, No. 6, pp. 901-916, 2011
- Y. Chen, M. Pfund, J. Fowler, and T. Callarman, "Robust Scaling Parameters for Composite Dispatching Rules", *IIE Transactions*, Vol. 42, No. 11, pp. 842-853, Nov 2010
- H. Balasubramanian, J. Fowler, and A. Keha, M. Pfund, "Scheduling Interfering Job Sets on Parallel Machines," *European Journal of Operational Research,* 199 (1), p.55-67, Nov 2009
- M. Pfund, J. Fowler, A. Gadkari, and Y. Chen, "Scheduling to Reduce Total Weighted Tardiness on Parallel Machines with Ready Times," *Computers and Industrial Engineering,* Vol. 54, No. 4, pp. 764-782, 2008
- S. Mason, M. Kurz, L. Pohl, J. Fowler, and M. Pfund, "Random Keys Implementation Of NSGA-II For Semiconductor Manufacturing Scheduling", *International Journal Of Information Technology And Intelligent Computing*, V2, N3, 2008
- M. Pfund, J. Fowler, H. Balasubramanian, S. Mason, and O. Rose, "A Multi-Objective Approach to Scheduling Complex Job-Shops," *Journal of Scheduling,* Vol. 11, No. 1, pp. 29-47, 2008
- R. Swaminathan, M. Pfund, J. Fowler, S. Mason, and A. Keha "Impact Of Permutation Enforcement when Minimizing Total Weighted Tardiness in Dynamic Flowshops with Uncertain Processing Times," *Journal: Computers and Operations Research* , Vol. 34, No. 10, pp. 3055-3068, 2007
- S. Diaz, J. Fowler, M. Pfund, G. Mackulak, and M. Hickie, "Evaluating the Impacts of Reticle Requirements in Semiconductor Wafer Fabrication," *IEEE Transactions on Semiconductor Manufacturing*, Vol. 18, No. 4, pp. 622-632, 2005
- L. Mönch, H. Balasubramanian, J. Fowler, and M. Pfund, "Heuristic Scheduling of Jobs on Parallel Batch Machines with Incompatible Job Families and Unequal Ready Times," *Computers and Operations Research*, Vol. 32, No. 11, pp. 2731-2750, 2005
- M. Pfund, J. Fowler, and J. Gupta, "A Survey Of Algorithms For Single And Multi-Objective Unrelated Parallel Machine Scheduling Problems," *Journal of Chinese Institute of Industrial Engineers*, Vol. 21, No. 3, pp. 230-242, 2004
- H. Balasubramanian, L. Moench, J. Fowler, and M. Pfund, "Minimizing Total Weighted Tardiness on Parallel Batch Process Machines Using Genetic Algorithms," *International Journal of Production Research*, Vol. 42, No. 8, 1621-1638, 2004
- M. Pfund, L. Yu, J. Fowler, and W. Carlyle, "The Effects Of Processing Time Variability And Equipment Downtimes On Various Scheduling Approaches For A Printed Wiring Board Assembly Operation," *Journal of Electronics Manufacturing*, V.11, N.1, pp. 19-31, 2002
- L. Solomon, J. Fowler, and M. Pfund, "The Effects of Batch Setup In A Semiconductor Manufacturing Facility," *Journal of Electronics Manufacturing*, V.11, N.2, pp. 149-159, 2002

Journal Articles (published)

- L. Yu, H. Shih, M. Pfund, W. Carlyle, and J. Fowler, "Scheduling Of Unrelated Parallel Machines: An Application To PWB Manufacturing," *IIE Transactions on Scheduling and Logistics*, V. 11, N. 34, pp. 921-931, 2002

Journal Articles (in review)

- Y. Chen, J. Fowler, M. Pfund, and D. Montgomery, "Parameterization of Composite Dispatching Rules," *International Journal of Production Research*

Journal Articles (in preparation)

- M. Pfund and J. Fowler, "Extending The Boundaries Between Scheduling And Dispatching: Hedging And Rescheduling Techniques," *International Journal of Production Research*
- Y. Chen, M. Pfund, D. Montgomery, and J. Fowler, "Using Regression Splines to Parameterize Composite Dispatching Rules," *Journal: TBD*

Conference Proceedings

- Y. Chen, D. Montgomery, J. Fowler, and M. Pfund, "Using Regression Splines to Parameterize Composite Dispatching Rules," 43rd International Conference on Computers and Industrial Engineering, Hong Kong, R.O.C., October 16-18, 2013, (no page numbers)
- M. Pfund, and J. Fowler, "Investigating the Boundary between Scheduling & Dispatching", MISTA 2011, the 5th Multidisciplinary International Scheduling Conference, Phoenix, AZ, Aug 9-12,2011.
- Y. Lin, J. Fowler, and M. Pfund, "Bi-criteria Heuristic for Scheduling in Unrelated Parallel Machines", ICAOR '10 International Conference on Applied Operational Research, Turku, Finland, August 23-24, 2010 (no page numbers)
- Y. Lin, M. Pfund, and J. Fowler, "Minimizing Makespan for Unrelated Parallel Machine Scheduling Problems," IEEE International Conference on Service Operations, Logistics and Informatics, Chicago, IL, July 22-24, 2009 (no page numbers)
- S. Mason, M. Kurz, M. Pfund, J. Fowler, and L. Pohl, "Multi-Objective Semiconductor Manufacturing Scheduling," A Random Keys Implementation of NGSA-II, 2007 IEEE Symposium on Computational Intelligence in Scheduling (CISched), Honolulu, Hawaii, April 1-5, 2007 (no page numbers)
- Y. Lin, M. Pfund, J. Fowler, and D. Montgomery, "Classification of Parallel Machine Environments under Various Correlation Structures", 36th International Conference on Computers and Industrial Engineering, Taipei, Taiwan, R.O.C., June 20-23, 2006, pp. 1253-1261
- H. Balasubramanian, J. Fowler, and M. Pfund, "Single Machine Bicriteria Scheduling Using the Apparent Tardiness Cost Heuristic," 13th Annual Industrial Engineering Research Conference, Orlando, FL, May 20-24, 2006 (no page numbers)
- M. Pfund, H. Balasubramanian, J. Fowler, and S. Mason' "A Bi-Criteria Approach to Scheduling Wafer Fabrication Facilities," MISTA 2005, The 2nd Multidisciplinary International Conference on Scheduling: Theory and Applications, New York, NY, July 18-21, 2005 (no page numbers)
- D. Pabst, J. Fowler, M. Pfund, S. Mason, O.Rose, L. Moench, and R. Sturm, "Deterministic Scheduling of Wafer Fab Operations," Brooks Worldwide Automation Symposium, Phoenix, AZ, Oct. 20-24, 2003 (no page numbers)

Conference Proceedings

- M. Bullock, J. Fowler, and M. Pfund, "Evaluation of Lot Dispatching Rules for Semiconductor Manufacturing," 11th Annual Industrial Engineering Research Conference, Portland, OR, May 18-20, 2003 (no page numbers)
- J. Potoradi, O. Boon, S. Mason, J. Fowler, and M. Pfund, "Using Simulation-Based Scheduling to Maximize Demand Fulfillment in a Semiconductor Assembly Facility," Proceedings of the Winter Simulation Conference, San Diego, CA, Dec. 8-11, 2002, pp. 1857-1861
- L. Mönch, H. Balasubramanian, J. Fowler, and M. Pfund, "Minimizing Total Weighted Tardiness on Parallel Batch Process Machines Using Genetic Algorithms," Proceedings of Operations Research 2002: International Conference on Operations Research, University of Klagenfurt, Austria, Sept. 2-5, 2002, pp. 205-210
- M. Pfund, J. Fowler, and W. Carlyle, "An Evaluation of Scheduling and Dispatching Algorithms in High Tech Manufacturing Environments with Uncertainty,"12th Annual International Conference on Flexible Automation and Intelligent Manufacturing, Dresden, Germany, July 15-17, 2002, pp. 1224-1230
- S. Mason, G. Skinner, P. Qu, J. Song, C. Wessels, M. Pfund, J. Fowler, W. Carlyle, and B. Kim, "Scheduling and Rescheduling Methodologies," 12th Annual International Conference on Flexible Automation and Intelligent Manufacturing, Dresden, Germany, July 15-17, 2002, pp. 1434-1439
- W. Carlyle, J. Fowler, M. Pfund, R. Abraham, H. Balasubmaranian, and A. Gadkari, "Semiconductor Wafer Fabrication Subproblem Solution Procedures for the Shifting Bottleneck Heuristic,"12th Annual International Conference on Flexible Automation and Intelligent Manufacturing, Dresden, Germany, July 15-17, 2002, pp. 1464-1471
- E. Gel, G. Runger, M. Pfund, J. Fowler, A. Burnhanuddin, and C. Vardar, "Event and Data Triggers for Rescheduling in Wafer Fabs," 12th Annual International Conference on Flexible Automation and Intelligent Manufacturing, Dresden, Germany, July 15-17, 2002, pp. 1440-1445
- L. Fowler, M. Pfund, L. Yu, J. Fowler, and W. Carlyle, "Development of a Robust Scheduling Rule for a Printed Wiring Board Drilling Operation with Multiple Scheduling Objectives and Fixed Order Release / Pickup Times," 10th Annual Industrial Engineering Research Conference, Orlando, FL, May 19-21, 2002 (no page numbers)
- M. Pfund and J. Fowler, "Exploring the Boundaries Between Scheduling and Dispatching in High-Tech Manufacturing Environments," Western Decision Sciences, Las Vegas, NV, April 2002 pp.726-731
- Y. Yeh, A. Wong, H. Hong, and M. Pfund, "The Effect of Factory Size on Economic Efficiency," International Conference on Modeling and Analysis of Semiconductor Manufacturing," Phoenix, AZ, April 2002, pp. 101-105
- M. Pfund, J. Fowler, and S. Brown, "The Need for Factory Dynamics Training for Technicians," Proceedings of the 7th Annual Advanced Technological Education in Semiconductor Manufacturing, Austin, TX, July 30-August 3, 2001, Paper #14-C, on CD-ROM (no page numbers)

Books

- D. Montgomery, C. Jennings, and M. Pfund, *Managing, Controlling, and Improving Quality*, Wiley (2010)

Book Chapters and Other Publications

- M. Pfund, S. Mason, and J. Fowler, "Semiconductor Manufacturing Scheduling and Dispatching: State of the Art and Survey of Needs," *Handbook on Production Scheduling*, Edited by J. Hermann, Springer, Chapter 10, pp. 213-242, 2006
- T. Callarman, J. Fowler, E. Gel, M. Pfund, D. Shunk, "Creating a Research Agenda Framework for Semiconductor Supply Network Integration," *Evolution of Supply Chain Management: Symbiosis of Adaptive Value Networks and ICT*, edited by Y.S. Chang, H.C. Makatsoris, and H.D. Richards, Kluwer Academic Publishers, Ch. 6, 2004, pp. 161-201
- W. Carlyle, J. Fowler, M. Pfund, H. Balasubmaranian, and A. Gadkari, "Semiconductor Wafer Fabrication Subproblem Solution Procedures for the Shifting Bottleneck Heuristic," *Society of Manufacturing Engineers Technical Paper* NF02-269

Conference Presentations

- S. Karalli, P. Lee, and M. Pfund, "Teaching Operations Management and Supply Chain Management with Online Games," Academy of Management, Anaheim, CA, August 8-13, 2008
- S. Mason, M. Kurz, M. Pfund, J. Fowler, and L, Pohl, "Multi-Objective Semiconductor Manufacturing Scheduling," INFORMS, Seattle, WA, November 4-7, 2007
- J. Chen, M. Pfund, D. Montgomery, and J. Fowler, "Mixture Experiments in Robust K Design," INFORMS, San Francisco, Nov. 13-16, 2005
- Y. Lin, J. Fowler, and M. Pfund, "Processing Time Generation schemes for Parallel Machine Scheduling Problems with Various Correlation," INFORMS, San Francisco, Nov. 13-16, 2005
- J. Chen, M. Pfund, and J. Fowler, "Methodologies for Parameterization of Composite Dispatching Rules," IFORS 2005, Honolulu, HI, July 11-15, 2005
- J. Fowler and M. Pfund, "Scheduling Wafer Fabrication Operations: State-of-the-Practice and Future Needs," MISTA 2005, The 2nd Multidisciplinary International Conference on Scheduling: Theory and Applications, New York, NY, July 18-21, 2005
- S. Mason, M. Pfund, and J. Fowler, "A Deterministic Scheduling Approach for Wafer Fabrication Facilities," MISTA 2005, The 2nd Multidisciplinary International Conference on Scheduling: Theory and Applications, New York, NY, July 18-21, 2005
- H. Balasubramanian, M. Pfund, J. Fowler, and S. Mason, "A Multi-Objective Approach to Scheduling Wafer Fabrication Facilities,"*13th Annual Industrial Engineering Research Conference*, Atlanta, GA, May 14-17, 2005
- R. Swaminathan, M. Pfund, J. Fowler, and S. Mason**,** "Minimizing Total Weighted Tardiness in a Dynamic Flowshop with Variable Processing Times," *12th Annual Industrial Engineering Research Conference*, Houston, TX, May 15-19, 2004
- M. Pfund, J. Fowler, E. Gel, S. Mason, O. Rose, G. Runger, and L. Moench, "Scheduling Wafer Fab Operations," INFORMS, Atlanta, Oct. 19-22, 2003
- J. Fowler, M. Pfund, and L. Moench, "Subproblem Solution Procedures for a Modified Shifting Bottleneck Heuristic," INFORMS, Atlanta, Oct. 19-22, 2003
- M. Pfund, J. Fowler, and T. Callarman, "Littlefield Technologies as an operations Management Experiential Learning Tool," *Decision Sciences Institute Annual Meeting*, San Diego, Nov. 23-26, 2002
- C. Vardar, G. Runger, E. Gel, and M. Pfund, "Decision Rules for Adaptive Rescheduling for Wafer Fabs," INFORMS, San Jose, Nov. 17-20, 2002

RESEARCH *(continued)*

Conference Presentations

- S. Jin, S. Mason, and M. Pfund, "Rescheduling Complex Job Shops," INFORMS, San Jose, Nov. 17-20, 2002
- S. Murray, J. Fowler, M. Carlyle, and M. Pfund, "Reticle Management within Photolithography," INFORMS, San Jose, Nov. 17-20, 2002
- H. Balasubramanian, M. Carlyle, A. Gadkari, J. Fowler, L. Moench, and M. Pfund, "Minimizing Total Weighted Tardiness on Parallel Batch Machines with Incompatible Job Families," INFORMS, San Jose, Nov. 17-20, 2002
- M. Pfund and J. Fowler, "Rescheduling of Unrelated Parallel Machines in Printed Wiring Board Manufacturing," INFORMS, San Jose, Nov. 17-20, 2002
- M. Pfund and J. Fowler, "The Evaluation Of Deterministic Scheduling Methodologies Using Discrete Event Simulation," *16th triennial conference of the International Federation of Operational Research Societies*, Edinburgh, Scotland, July 8-12, 2002
- M. Pfund, "The Use of Discrete Event Simulation for the Emulation and Evaluation of Deterministic Scheduling Methodologies in Dynamic Manufacturing Environments," *Winter Simulation Conference*, Arlington, VA, December 2001
- M. Pfund, L. Yu, J. Fowler, and W. Carlyle, "The Effects Of Processing Time Variability And Equipment Downtimes On Various Scheduling Approaches For A Printed Wiring Board Assembly Operation," *INFORMS International*, June 2001
- G. Runger and M. Pfund "Triggers for Adaptive Rescheduling In Complex Job Shops," *INFORMS International*, June 2001
- B. Chew and M. Pfund, "A Workshop For Understanding And Implementing Computer Validation GMP Requirements," *ISPE Annual Meeting*, 1999

Invited Talks

- M. Pfund, Y. Chen, and J. Fowler, "Methodologies for Parameterization of Composite Dispatching Rules," Dagstuhl Seminar 05821, Dagstuhl, July 2005
- M. Pfund, "Capturing the Value of Stochastic Optimization," *DAAG 2004*, San Francisco, Feb. 24-27, 2004
- M. Pfund and J. Fowler, "Experiential Learning Tools for Operations Management," INFORMS Teaching Effectiveness Colloquium, Oct. 18, 2003
- J. Fowler and M. Pfund, "FORCe Scheduling and Simulation Workshop," TSMC, January 16, 2003
- J. Fowler, M. Pfund, and P. Lendermann, "From Customer Demand to Order Release," Singapore Institute of Technology Technical Seminar, January 14th, 2003
- M. Pfund, "An Evaluation of the Use of Deterministic Scheduling with Hedges and Rescheduling in Manufacturing Environments with Uncertainty," University of Ilmenau (Ilmenau, Germany), July 14th, 2002

TEACHING

Teaching Interests

- Supply Chain Management
- Operations Management
- Operations Research
- Discrete Event & Monte Carlo Simulation
- Scheduling and Production Planning
- Financial Engineering

TEACHING *(continued)*

Courses Taught

Semester	Course ID	Course Title	Evaluation
W.P. Carey Evaluation Form (Scale of 7, 7 is best)			
Summer 13	SCM 502	Operations and Supply Management (online)	6.28
Spring 13	SCM 315	Business Decision Models	6.7
Spring 13	SCM 502	Operations and Supply Management (online)	6.18
Spring 13	SCM 502	Operations and Supply Management (online)	6.49
Fall 12	SCM 432	Planning & Control Systems for SCM	6.75
Fall 12	SCM 432	Planning & Control Systems for SCM	6.64
Fall 12	SCM 432	Planning & Control Systems for SCM	6.82
Summer 12	SCM 502	Operations and Supply Management (online)	6.63
Spring 12	SCM 502	Operations and Supply Management (online)	6.58
Fall 11	SCM 432	Planning & Control Systems for SCM	6.69
Fall 11	SCM 432	Planning & Control Systems for SCM	6.73
Fall 11	SCM 432	Planning & Control Systems for SCM	6.55
Summer 11	SCM 502	Operations and Supply Management (online)	6.53
Summer 11	SCM 502	Operations and Supply Management (online)	6.45
Spring 11	SCM 432	Planning & Control Systems for SCM	6.44
Spring 11	SCM 432	Planning & Control Systems for SCM	6.71
Spring 11	SCM 515	Decision Models for SCM	6.68
Fall 10	SCM 432	Planning & Control Systems for SCM	6.82
Fall 10	SCM 432	Planning & Control Systems for SCM	6.71
Fall 10	SCM 515	Decision Models for SCM	6.90
Fall 10	SCM 502	Operations and Supply Management (online)	6.63
Summer 10	SCM 541	Logistics in Supply Chain	6.11
Spring 10	SCM 432	Planning & Control Systems for SCM	6.62
Spring 10	SCM 432	Planning & Control Systems for SCM	6.81
Spring 10	SCM 432	Planning & Control Systems for SCM	6.52
Spring 10	SCM 502	Operations and Supply Management (online)	6.50
Fall 09	SCM 432	Planning & Control Systems for SCM	6.69
Fall 09	SCM 432	Planning & Control Systems for SCM	6.39
Fall 09	SCM 432	Planning & Control Systems for SCM	6.69
Fall 09	SCM 502	Operations and Supply Management (online)	6.27
Spring 09	SCM 432	Planning & Control Systems for SCM	6.54
Spring 09	SCM 432	Planning & Control Systems for SCM	6.65
Spring 09	SCM 432	Planning & Control Systems for SCM	6.58
Spring 09	SCM 502	Operations and Supply Management (online)	6.26
Fall 08	SCM 432	Planning & Control Systems for SCM	6.46
Fall 08	SCM 432	Planning & Control Systems for SCM	6.67
Fall 08	SCM 432	Planning & Control Systems for SCM	6.50

TEACHING *(continued)*

Courses Taught (continued)

W.P. Carey Evaluation Form (Scale of 7, 1 is best)			
Fall 08	SCM 502	Operations and Supply Management (online)	6.33
Spring 08	SCM 432	Planning & Control Systems for SCM	6.39
Spring 08	SCM 432	Planning & Control Systems for SCM	6.53
Spring 08	SCM 432	Planning & Control Systems for SCM	6.52
Spring 08	SCM 502	Operations and Supply Management (online)	5.68
Fall 07	SCM 432	Planning & Control Systems for SCM	6.6
Fall 07	SCM 432	Planning & Control Systems for SCM	6.3
Fall 07	SCM 432	Planning & Control Systems for SCM	6.3
Fall 07	SCM 502	Operations and Supply Management (online)	6.3
Spring 07	SCM 432	Planning & Control Systems for SCM	6.56
Spring 07	SCM 432	Planning & Control Systems for SCM	6.31
Spring 07	SCM 432	Planning & Control Systems for SCM	6.11
Spring 07	SCM 502	Operations and Supply Management (online)	1.46
W.P. Carey Evaluation Form (Scale of 5, 1 is best)			
Fall 06	SCM 502	Operations and Supply Management (online)	1.03
Fall 06	SCM 432	Planning & Control Systems for SCM	1.44
Fall 06	SCM 432	Planning & Control Systems for SCM	1.93
Fall 06	SCM 432	Planning & Control Systems for SCM	1.29
Spring 06	SCM 440	Quality Management & Measurement	1.23
Spring 06	SCM 440	Quality Management & Measurement	1.42
Spring 06	SCM 440	Quality Management & Measurement	1.55
Spring 06	SCM 502	Operations & Logistics Management (Tech)	1.76
Fall 05	SCM 541	Logistical Functions in Supply Chains (online)	1.25
Fall 05	SCM 440	Quality Management & Measurement	1.50
Fall 05	SCM 440	Quality Management & Measurement	1.59
W.P. Carey Evaluation Form (Scale of 5, 1 is best)			
Fall 05	SCM 440	Quality Management & Measurement	1.69
Spring 05	SCM 541	Logistical Functions in Supply Chains (online)	1.09
Ira A. Fulton Evaluation Form (Scale of 5, 5 is best)			
Spring 05	IEE 475	Simulation Stochastic Systems	4.72
Spring 05	IEE 472	Design and Analysis of Experiments	4.62
Fall 04	IEE 461	Production and Operations Analysis	4.48
Fall 04	IEE 475	Simulation Stochastic Systems	4.31
Spring 03	ECE 380	Engineering Prob. & Stats (eng core)	3.8
Fall 02	IEE 475	Simulation Stochastic Systems	3.9
Fall 02	ECE 380	Engineering Prob. & Stats (eng core)	4.0
Fall 02	IEE 633	Advanced Scheduling	4.7
Summer 00	IEE 533	Scheduling (independent study – no evals)	NA

Courses Taught (continued)

W.P. Carey Evaluation Form (Scale of 5, 1 is best)		
SCM 432	Planning and Control Systems for SCM Note: Awarded John W. Teets Outstanding Teaching Award	1.3
SCM 432	Planning and Control Systems for SCM	1.8

Industrial Short Courses

- Factory Physics, SEH America (with J. Fowler), Vancouver, WA, March 24-25, 2003
- Factory Physics, Boston Scientific (with J. Fowler), Miami, FL, January 30-31, 2003
- Advanced Factory Physics, ASU Center for Professional Development Lean Manufacturing Program (with J. Fowler), Phoenix, AZ, January 27, 2003
- Factory Physics, ASU Center for Professional Development Lean Manufacturing Program (with J. Fowler), Phoenix, AZ, December 12-13, 2002
- Factory Physics, SEH America (with J. Fowler), Vancouver, WA, November 5-6, 2002
- Factory Physics, ASU Center for Professional Development Lean Manufacturing Program (with J. Fowler), Phoenix, AZ, September 16-17, 2002
- INTEL Institute on Factory Dynamics, Boston, Albuquerque, Colorado Springs, 2001

Students Mentored

- Eunae Yoo (Undergraduate Honors Thesis)
  Thesis: *Finding the Best Fit to Maximize Responsiveness in Humanitarian Logistics: An Information Processing Perspective*. Completion 2013
- Margaret Robes & Allison Carrol (Undergraduate Honors Thesis)
  Thesis: *Invest Chile: Ana Analysis of Chile's Initiatives to Attract High Tech Foreign Direct Investment*. Completion 2013
- Alexander Clark & Brandon Lau (Undergraduate Honors Thesis)
  Thesis: *Ranking Factories When There are Multiple Dimensions of Performance*. Completion 2013
- Detlef Pabst (Ph.D.)
  Dissertation: *Parametric Prediction of the Cycle Time Throughput Relation for Production Systems by Simulation and Regression*. Completion: 2012
- Matthew Leung (Undergraduate Honors Thesis)
  Thesis: *Internship 101*. Completion: 2012
- Grant Garber (Undergraduate Honors Thesis)
  Thesis: *Invest Chile: Ana Analysis of Chile's Initiatives to Attract High Tech Foreign Direct Investment.* Completion: 2011
- Dana Krueger (Ph.D.)
  Dissertation: *Yield Modeling and Analysis Applied to Multi-Stage Processe*s. Completion: 2011
- Shanshan Wang (Ph.D.),
  Dissertation: Modeling Supply Chain Dynamics with Calibrated Simulation Using Data Fusion, Completion: 2010
- Samantha Dollar (Undergraduate Honors Thesis)
  Thesis: *High Performance Planning Build Signal. C*ompletion 2010
- Laura Hurtig (Undergraduate Honors Thesis)
  Thesis: *Process Reengineering at Pratt Whitney. C*ompletion 2010

Students Mentored

- Angela Sun (Undergraduate Honors Thesis)
  Thesis: *The History and Future of Strategic Sourcing.* Completion: 2009
- Stephanie Kennedy (Undergraduate Honors Thesis)
  Thesis*: Is True Collaboration Possible?* Anticipated completion: 2009
- Jennifer Rose and Katherine Miller (Undergraduate Honors Thesis)

  Thesis: *Process Improvements for a Dance Studio*. Completion: 2009
- Mandy Alves (Undergraduate Honors Thesis)
  Thesis: *What did Mary, Queen of Scotts Know about the Murder of Her Husband?* Completion: 2009
- Jillian Mudryk (Undergraduate Honors Thesis)
  Thesis: *Big Savings Come From Small Improvements in Procurement*. Completion: 2009
- Myoungsoo Ham (Ph.D.)
  Dissertation: *Balanced Machine Workstation Schemas for Wafer Fabs*. Completion: 2008
- Xiaoyun Xu (Ph.D.)
  Dissertation: *Optimization and Analysis of Computer and Network System Operations for Quality of Service (Qos) Assurance*. Completion: 2008
- Shrikant Jarugumilli (M.S.)
  Thesis: *Capacity Allocation Models For Semiconductor Manufacturing: Assembly-Test Operations*. Completion: 2008
- Seung-Hwan Kim (Ph.D.)
  Dissertation: *Designing Robust and Effective Hybrid Push-Pull Supply Chain Using Multi-Point Postponement*. August 2008
- Arial Dunn (Undergraduate Honors Thesis)
  Thesis: *Hurricane Katrina and Health Care Resiliency*. August 2008
- Jenny Chen (Ph.D.), Co-Chair
  Dissertation**:** *Statistical Issues in the evaluation of deterministic scheduling heuristics*. May 2006
- Vivian Lin (Ph.D.) Co-Chair
  Dissertation**:** *Unrelated Parallel Machine Scheduling**.*** December 2006
- Hari Balasubramanian (Ph.D.)
  Dissertation**:** *Bi-criteria Parallel Machine Scheduling**.*** August 2006
- Jesus Jiminez (Ph.D.)
  Dissertation: *Simulation Modeling Levels to Support Integrated Capacity and AMHS Decision Making in Semiconductor Wafer Fabs*. December 2005
- Rajesh Swaminathan (M.S.), Co-Chair
  Master's Thesis: Minimizing Total weighted tardiness in a dynamic flowshop with variable processing times. *May 2005*
- Amit Devpura (Ph.D.)
  Dissertation**:** *Minimizing total weighted tardiness on single and parallel batch process machine with incompatible job families*. August 2003
- Amit Gadkari (M.S.), Co-Chair
  Master's Thesis: *The impact of idle time insertion to minimize total weighted tardiness for unrelated parallel machines*. Anticipated Completion: May 2003

TEACHING (CONTINUED)

Students Mentored

- Shari Diaz (M.S.)
  Master's Thesis: *Photolithography reticle management strategies to reduce move costs and total weighted tardiness*. May 2003
- Chad Quill (Undergraduate Honors Thesis)
  Honors Thesis: *Scheduling non-identical machines in stochastic environments with due date, makespan, and utilization performance measures*. December 2002
- Meghan Bullock (Undergraduate Honors Thesis)
  Honors Thesis: *Evaluation of lot dispatching rules for semiconductor manufacturing*. August 2002
- Hong Han, Anson Wong, Yen Ye (High School Students – SCENE)
  The impact of factory size upon economic efficiency – Central Arizona Regional Science and Engineering Fair – 1st Place, Computer Science Division, 2001-2002
- Lauren Fowler (High School / Undergraduate)
  Development of a Robust Scheduling Rule for a Printed Wiring Board Drilling Operation with Multiple Scheduling Objectives and Fixed Order Release / Pickup Times, 2002 IERC Conference (see conference proceedings section), 2001-2002

SERVICE

Scientific and Professional Society Membership

- Institute For Operations Research and Management Science (INFORMS)
  ASU Student Chapter President, 2001 – 2002
  ASU Student Chapter Vice President, 2000 – 2001
  ASU Student Chapter Founding Committee Treasurer 1999-2000
- Institute of Industrial Engineering (IIE)
- Decision Sciences Institute
- International Society of Pharmaceutical Engineers (ISPE) 1993 – 1999

Honor Societies

- Phi Kappa Phi
- Alpha Pi Mu
- Omega Rho (founding President at Arizona State University)

Conference Activities

- Supply Chain Directors Conference 2012 Planning Committee
- INFORMS 2005 Conference Committee – Industry Colloquium
- PICMET 2003 Program Committee Member
- INFORMS 2002: Session Organizer (4 sessions)
- MASM 2002: Session Chair
- IERC 2002: Session Chair
- IFORS 2002: Session Chair
- FAIM 2002 Session Chair
- INFORMS International 2001: Session Chair

Journal Activities Editor

- Faculty / Industrial Adviser for ORMS Tomorrow, Student Journal of INFORMS (2003-present)
- Editor for ORMS Tomorrow, Student Journal of INFORMS (2000 – 2002)

SERVICE (CONTINUED)

Journal Activities Referee	▪ Referee for: *Computers and Industrial Engineering* *Computers and Operations Research* *Computers in Industry* *IEEE Transactions on Semiconductor Manufacturing* *IEEE Systems, Man and Cybernetics* *IIE Transactions: Scheduling and Logistics* *International Journal of Production Research* *Simulation: Transactions of the Society for Modeling and Simulation International*
Books Reviewed	▪ Pinedo, *Scheduling: Theory, Algorithms, and Systems*
Book Material Development (Supplemental)	▪ Meyers and Montgomery, "Response Surface Methodology: Process and Product in Optimization Using Designed Experiments". Student study guides / test prep materials created for companion website.
Other Service Activities	▪ Southwest Center for Education and the Natural Environment (SCENE) Research Opportunities Program for High School Students o 2004 – 2005: 4 students 1st and 3rd Place CARSEF Awards o 2002 – 2003: 4 students 1st Place CARSEF Award, Computer Science o 2001 – 2002: 3 students 1st Place CARSEF Award, Computer Science ▪ ASU College of Engineering and Science (CEAS) High School Engineering Summer Institute (2001 & 2002) ▪ ASU Office of Minority Engineering (OMEP) High School Engineering Summer Institute (2001) ▪ ASU Women in Science in Engineering, WISE-UP Summer Program (2001)

REFERENCES

Faculty References	John Fowler Professor Arizona State University John.Fowler@asu.edu Douglas Montgomery Professor Arizona State University Doug.Montgomery@asu.edu
Industrial References	Available on request