

Department of
Management Information Systems,
Operations Management &
Decision Sciences

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The Department

The Department of MIS, OM, and DSC (MOD) is an academic unit within the School of Business Administration at the University of Dayton. It offers innovative undergraduate business programs in MIS and Operations Management. The department also supports the school's MBA program, including concentrations and certificates in MIS, Operations Management, and Technology-Enhanced Business. The department faculty, which includes two endowed chair positions, is well known for its research, teaching, and active service both within the university and in professional organizations.

The University

The University of Dayton (UD) is one of the nation's ten largest Catholic universities, founded in 1850 by the Society of Mary (Marianists), a Roman Catholic teaching order. With approximately 11,000 students, UD is the largest private university in Ohio. It consists of a College of Arts and Sciences and Schools of Business Administration, Education, Engineering, and Law. It is ranked as a top-tier national university in the 2005 issue of *America's Best Colleges* from *U.S. News and World Report* and a "best college" in the 2006 guide *The Best 361 Colleges* from *The Princeton Review*. UD has been named one of the country's "most entrepreneurial campuses" by *The Princeton Review* and *Forbes.com*. **Yahoo!** and other sources have recognized UD as the top wired university in Ohio and the most wired Catholic university in the nation, and more recently, Intel has recognized UD as one of the most "unwired" (i.e. wireless-accessible) campuses in the U.S.

The University's 250-acre campus is located at the southern edge of Dayton, Ohio, which has a population of about one million in the greater metropolitan area. Dayton has a vibrant business community and is the home of Fortune 500 corporate and divisional headquarters as well as a number of smaller, dynamic enterprises. It is also the location of Wright-Patterson AFB, the largest U.S. Air Force R&D center in the country, and the center for worldwide logistics supporting the entire Air Force. The University is actively involved with the Greater Dayton IT Alliance, a trade organization that represents the many high technology providers and users in the greater Dayton area.

The School

The School of Business Administration (SBA) is accredited by the AACSB International—Association to Advance Collegiate Schools of Business. Its mission is: *To be a leader in delivering (1) innovative business programs, (2) high impact scholarship, and (3) partner-driven leadership education.*

The School offers nine undergraduate business majors as well as an MBA through four academic departments. The undergraduate program enrolls primarily full-time, residential students and graduates around 300 students per year. The MBA program attracts primarily part-time, working professionals but also a significant number of full-time and international students. There are around 200 MBA graduates per year. A Business Advisory Council of 30 senior executives from across the US advises the Dean on planning and development issues.

Business School Centers—The School includes the following special units: The Business Research Group, The Crotty Center for Entrepreneurial Leadership, The Center for Portfolio Management and Security Analysis, and The Center for Leadership and Executive Development. The last unit was developed as a partnership between leading organizations in the greater Dayton area and UD's business school to provide (1) customized educational programs using nationally known providers and (2) consulting services, both tailored to address the needs of the partner organizations.

New facilities—The School has made major investments to the learning infrastructure over the past few years. In 2002 the SBA completed a major renovation of learning spaces, offices, and faculty areas, resulting in a suite of modern, technology-enabled classrooms, student team rooms, and an atrium entry for the School. Further, the SBA just completed renovation of even more learning spaces, featuring flexible room configurations and leading-edge technology.

Department Academic Programs

Management Information Systems—This innovative undergraduate business program features a capstone, two-semester analysis and design project with a Dayton area firm. A small and selective program, MIS graduates about 35 students each year who are placed in high quality firms from Dayton, Cincinnati, and around the country. Frequent employers include Accenture, General Electric, Johnson & Johnson, and NCR. The MIS group is currently undergoing a major curriculum revision to make its graduates even more competitive.

Operations Management—This undergraduate business major is designed with a capstone applied project, a balance of operations analysis and operations strategy required courses and several focused sets of inter-disciplinary electives (manufacturing, quality management, supply chain management, small business operations, and business process management.). The program was developed to be responsive to contemporary business needs by benchmarking leading U.S. university OM programs and extensive coordination with area business operations executives.

Undergraduate Business Core & Minors—The department supports

the undergraduate program's "integrated business core" with courses for all business majors in business statistics, management information systems, and operations management. It also offers minors for business and other students in Management Information Systems, Operations Management, Decision Sciences, and E-Business.

MBA Program—UD has an integrated MBA program that includes four team-taught, dual discipline core courses and two team-taught (with an executive-in-residence) capstone courses. The department faculty co-developed and team-teach three of the four MBA core courses: Business Decision Making (decision science and economics), Operational Systems (operations management and accounting), and Managing Information and People (MIS and management). The department also supports three MBA concentrations: Management Information Systems, Operations Management, and Technology-Enhanced Business.

Partnerships with the Business Community

The department believes that its programs, teaching, and research are enhanced via ongoing partnerships and exchanges with business and government from the greater Dayton area.

Business Involvement in Programs—The culminating educational experiences (final courses) for all the degree programs the department offers (the MIS program, the Operations Management Program, and our MBA program) are applied projects with actual business firms from the greater Dayton area.

Advisory Boards—Two advisory groups composed of senior executives from local organizations support the department's programs: the MIS Advisory Board and the Operations Management Advisory Council. These groups regularly interact with the department faculty and students to provide "practitioner" inputs to curricula and research, to identify internships/coop/long-term employment opportunities, and (in many cases) to be the venues for the MIS and OM capstone student projects.

Executives-In-Residence—The department and school actively recruit executives-in-residence, who have played important roles in the department. A CIO-in-residence has taught courses, participated in research projects, provided advice on IT strategy for the Business School, helped develop curriculum and facilitated contacts for faculty throughout the business community.

Greater Dayton IT Alliance—The department has been active in the committees and programs of the GDITA. This organization is an economic development and networking group that supports providers and users of information technology in the greater Dayton area. Involvement with GDITA has facilitated access to research sites, student projects, and student internships and scholarships.

Research Projects in the Business Community—Many of the faculty research projects are focused on issues and problems of contemporary businesses and are conducted with the involvement and support of local and national firms. These projects encompass a wide range of topics, from understanding recruitment of IT professionals to improving customer service performance.

Department Faculty

The faculty of the department has 14 full-time positions which include endowed chair positions in MIS (Sherman-Standard Register) and OM (Niehaus). One of the faculty currently serves as the Associate Dean of the School of Business Administration. A list of the department members and their interests appears later in this brochure.

Faculty Recognition—The department's faculty has developed a strong reputation for excellence within the School, the University, and professional groups. Since the department's establishment in the mid 1980's, four faculty members have earned the University of Dayton's highest award for teaching and one faculty member has earned the university's highest award for research. One of our faculty members won the Wickham Skinner Award for Teaching Innovation Achievements in 2002. Another faculty member has been a three-time Fulbright Senior Scholar. Several faculty members have served and currently serve in important roles for major professional organizations as well as on the editorial or advisory boards of leading journals.

Department Scholarship

The faculty of the department places high value on scholarship. Members have published their research in some of the very best journals in MIS, Operations Management, and Decision Sciences and authored several widely-adopted textbooks. See the accompanying sample of faculty publications.

The Department has sponsored a Distinguished Speaker Series in MIS since 1987, and in 2003 added a similar series in Operations Management. Both series have welcomed several notable academicians. Dan Robey, Brent Gallupe, V. Sambamurthy and Jeanne Ross are recent featured MIS speakers. Wickham Skinner, Robert Hayes and Marshall Fisher have recently been OM speakers.





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Faculty Teaching and Research Areas

Robert T. Amsden, Associate Professor, Ph.D., Rutgers University (1969); Operations Management, Statistics.

Thomas I. Davis, Lecturer, M.S., Air Force Institute of Technology (1970); Statistics, Operations Management.

E. James Dunne, Professor, Associate Dean (School of Business Administration), Ph.D., University of Illinois (1971); Management Science, Statistics.

Harvey G. Enns, Associate Professor, Ph.D., University of Western Ontario (2000); Management Information Systems.

Thomas W. Ferratt, Sherman-Standard Professor of MIS, Ph.D., Ohio State University (1974); Management Information Systems.

Michael F. Gorman, Associate Professor, Ph.D., Indiana University (1994); Management Science, Applied Economics.

Jeffrey A. Hoffer, Sherman-Standard Professor of Data Management, Ph.D., Cornell University (1975); Management Information Systems.

John J. Kanet, Professor and Niehaus Chair in Operations Management; Ph.D., Penn State University (1979); Operations Management.

Laura McManamon, Lecturer, M.Ed., Wright State University (1996); Business Software.

Jayesh Prasad, Associate Professor, Ph.D., University of Pittsburgh (1994); Management Information Systems.

Wm. David Salisbury, Associate Professor, Ph.D., University of Calgary (1996); Management Information Systems.

Peter G. Wagner, Lecturer, M.S., University of Southern California (1980); Statistics, Operations Management

Charles E. Wells, Professor and Department Chairperson, Ph.D., University of Cincinnati (1982); Management Science, Statistics.

Selected Faculty Publications

Rethinking inventory policies for service vehicles at a major appliance manufacturer. *Interfaces*, forthcoming.

Achieving success in large projects: Implications from a study of ERP implementations. *Interfaces*, forthcoming.

An experimental investigation of turnover intentions among new entrants in IT. *The Data Base for Advances in Information Systems*, forthcoming.

An application of interdependent lot sizing and consolidation point choice. *Mathematical and Computer Modeling*, forthcoming.

Modern Database Management, 8th edition. Prentice Hall, 2007.

Beyond stereotypes of IT professionals: Implications for IT HR practices. *Communications of the ACM*, 49(4), 2006, 105-109.

IT Workers: Human Capital Issues in a Knowledge-Based Environment. Information Age Publishing, 2006.

Evaluating operations management-related journals via the author affiliation index. *Manufacturing and Service Operations Management*, 7(1), 2005, 3-19.

When executives successfully influence peers: The role of target assessment, preparation, and tactics, *Human Resource Management*, 44(3), 2005, 257-278.

IT human resource management configurations and IT turnover: Theoretical synthesis and empirical analysis. *Information Systems Research*, 16(3), 2005, 237-255.

Estimation of an implied price elasticity of demand through current pricing practices. *Applied Economics*, 37(9), 2005, 1027-1035.

Modern Systems Analysis and Design, 4th edition. Prentice Hall, 2005.

Continental Airlines flies high with real-time business intelligence. *MIS Quarterly Executive*, 3(4), 2004, 163-176.

A weighted modified due date rule for sequencing to minimize weighted tardiness. *Journal of Scheduling*, 7(4), 2004, 261-276.

The use of computer-based information systems by German managers to support decision making. *Information & Management*, 41(6), 2004, 763-779.

Mean flowtime and inventory in production systems: A finite time analogue to Little's law. *International Journal of Production Economics*, 91(1), 2004, 37-46.

Authors' reply to Allport and Kerler. *Information Systems Research*, 14(4), 2003, 360-363.

When executives influence peers: Does function matter? *Human Resource Management*, 42(2), 2003, 125-142.

CIO lateral influence behaviors: Gaining peers' commitment to strategic information systems. *MIS Quarterly*, 27(1), 2003, 155-176.

Let us not throw out the baby with the bath water: Information, systems and technology all matter in the core IS course. *Communications of the AIS*, 14, 2004, 128-146.

Teradata University Network: A new resource for teaching large data bases and their applications. *Communications of the AIS*, 13, 2003, 131-144.

Schedule instability, service level and cost in a material requirements planning system. *International Journal of Production Research*, 40(7), 2002, 1725-1758.

Better theory through measurement: Developing a scale to capture consensus on appropriation. *Information Systems Research*, 13(1), 2002, 91-103.

Enduring practices for managing information technology professionals. *Communications of the ACM*, 45(9), 2002, 73-79.

How CIO's obtain peer commitment to strategic IS proposals: Barriers and facilitators. *Journal of Strategic Information Systems*, 10(1), 2001, 3-14.

Understanding the interplay between information technology and knowledge management strategies in strategic change initiatives. *Decision Support Systems*, 31, 2001, 55-69.

Intermodal pricing model creates a network pricing perspective at BNSF. *Interfaces*, 31(4), 2001, 37-49.

Crafting an HR strategy to meet the need for IT workers. *Communications of the ACM*, 44(7), 2001, 58-64.

Risks of rapid application development. *Communications of the ACM*, 43(11es), 2000.

Aligning the IT human resource with business vision: The leadership initiative at 3M. *MIS Quarterly*, 24(2), 2000, 327-353.

Scheduling with inserted idle time: Problem taxonomy and literature review. *Operations Research*, 48(1), 2000, 99-110.

A field study of the adoption of software process innovations by information systems professionals. *IEEE Transactions on Engineering Management*, 47(3), 2000, 295-308

Implementing supply chain management: Lessons learned at Becton Dickinson. *Production and Inventory Management*, 41(2), 2000, 33-40.

Are individual differences germane to the acceptance of new information technologies? *Decision Sciences*, 30(2), 1999, 361-391.

An examination of procedural and object-oriented systems analysis methods: Does prior experience help or hinder performance? *Decision Sciences*, 30(1), 1999, 107-136.

Perceived cohesion in small groups: Adapting and testing the perceived cohesion scale in a small group setting. *Small Group Research*, 30(6), 1999, 751-766.

Coping with Labor Scarcity in Information Technology: Strategies and Practices for Effective Recruitment and Retention. Pinnaflex Educational Resources, 1999.

SPC Simplified - Practical Steps to Quality, 2nd edition. Quality Resources, 1998.

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An information system involving competing organizations. *Communications of the ACM*, 41(12), 1998, 90-98.

A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information Systems Research*, 9(2), 1998, 204-215.

An operating plan model improves service design at Santa Fe railways. *Interfaces*, 28(4), 1998, 1-12.

The antecedents and consequents of user perceptions in information technology adoption. *Decision Support Systems*, 22(1), 1998, 15-29.

An Investigation of task-technology fit for managers in Greece and the US. *European Journal of Information Systems*, 7, 1998, 123-136.

A causal model for software cost estimating error. *IEEE Transactions on Software Engineering*, 2, 1998, 137-148.

The value of using scheduling information in planning material requirements. *Decision Science* 29(2), 1998, 479-498.

Practical Management Science: Understanding and Developing Spreadsheet Models: A Student Primer, Duxbury Press, 1998.

Advancing the theory of adaptive structuration: The development of an instrument to measure faithfulness of appropriation of an electronic meeting system. *Information Systems Research*, 8(4), 1997, 342-367.

Complexity of the discrete time-cost tradeoff problem for project networks. *Operations Research* 45, 1997, 302-306.

Discrete time-cost tradeoff problem for project networks. *Operations Research*, 45, 1997, 302-306.

The role of innovation characteristics and perceived voluntariness in the acceptance of information technologies. *Decision Sciences*, 28(3), 1997, 557-582.

On the minimization of coefficient of variation in single-machine scheduling. *International Journal of Production Economics*, 44, 1996, 249-253.

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*Developing people and knowledge
to make a difference in business and society.*